```
    210                 215                 220
His Thr Ile Gln Gly Asn Asn Gln Ser Arg Asp Ala Asp Arg Arg Gly
225                 230                 235                 240
Ser Gln Asn Val Asn Gly Pro Val Ala Ser Ser Arg Glu Met Ser Gly
                245                 250                 255
Asp Ala Ser Asp Met Gln Thr Glu Gln Ala Lys Pro Ser Ala Lys Gly
            260                 265                 270
Lys Gly Lys Lys Asn Thr Ala Ser Lys Ser Gly Thr Thr Ala Asn Asn
        275                 280                 285
Arg Arg Lys Ala Asp Asp Thr Pro Ala Lys Gly Pro Asn Lys Lys Ala
    290                 295                 300
Lys Thr Ser Val Ser Ser Gly Ser Ala Glu Pro Pro Ser Glu Ala Gly
305                 310                 315                 320
Asp Ser Glu Asp Glu Asp Asp Met Lys Lys Lys Ser Gln Thr Asp Thr
                325                 330                 335
Lys Lys Met Thr Asp Glu Glu Lys Arg Arg Asn Phe Leu Glu Arg Asn
            340                 345                 350
Arg Tyr Ala Leu Asp Cys Cys Met Thr Pro Lys Ala Thr Leu Ile
        355                 360                 365
```

<210> 36607
<211> 106
<212> PRT
<213> A.fumigatus

<400> 36607

```
Tyr Asn Leu Thr Arg Val Ala Ala Leu Lys Cys Arg Gln Arg Lys Lys
1               5                   10                  15
Gln Trp Leu Ala Asn Leu Gln Ala Lys Val Glu Leu Phe Thr Thr Glu
            20                  25                  30
Asn Asp Ala Leu Thr Ala Thr Val Thr Gln Leu Arg Glu Glu Ile Val
        35                  40                  45
Asn Leu Lys Thr Leu Leu Leu Ala His Lys Asp Cys Pro Val Ser Gln
    50                  55                  60
Ala Gln Gly Leu Gly Ser Leu Met Met Asn Gly Met Ser Thr Gly Phe
65                  70                  75                  80
Asp Pro His Pro Tyr Asn Ile Ala Asn Asn Met Gly Met Gln Pro Gly
                85                  90                  95
Ala Pro Ile Pro Thr Gln Gly Met Arg Arg
            100                 105
```

<210> 36608
<211> 457
<212> PRT
<213> A.fumigatus

<400> 36608

```
Lys Ala Tyr Pro Arg Thr Ala Ala Arg Thr Met Ala Ser Arg Gln Pro
1               5                   10                  15
Ala Arg Ser Arg Arg Ile Glu Asp Ala Leu Ser Gln Leu Val Asp Ser
            20                  25                  30
Leu Thr Pro Pro Ile Ser Leu Ser Glu Ile Gly Asp Thr Val Ser Glu
        35                  40                  45
Asp Pro Asp Glu Leu Leu Ala Glu Ala Glu Glu Arg Arg His Gln Glu
    50                  55                  60
Asn Leu Glu Arg Ala Trp Arg Ile Ile Asp Thr Tyr Gly Gly Ser Gly
```

```
65                  70                  75                  80
Asn Asp His Ala Ser Pro Ala Asn Gly Ala Gly Leu Gly Ile Ser Arg
                85                  90                  95
Arg Gly Ser Leu Ala Gly Gly Glu Asn Ile Asn Asn Ala Ser Asp Leu
            100                 105                 110
Ile Lys Arg Lys Leu Leu Arg Glu Asn Ala Ser Pro Asp Lys Ala Val
        115                 120                 125
Arg Phe Ser Asn Leu Tyr Ser Arg Leu Leu Thr Gln Pro Val Leu Ser
    130                 135                 140
Gln Lys Trp Ala Ile Leu Tyr Leu Leu Tyr Arg Leu Ser Gly Ser Asp
145                 150                 155                 160
Ser Gln Val Glu Val Val Asp Glu Asn Gly Arg Ser Arg Ser Pro Leu
                165                 170                 175
Met Asp Ala Gly Asn Leu Gln Asn Met Met Leu Lys Gly Gly His Gln
            180                 185                 190
Arg Val Arg His Ser Leu Gly Pro Arg Leu Glu Gly Asp Ser Asp Glu
        195                 200                 205
Asp Ser Pro Ala Val Ser Ser Ser Ala Ser Gln Ile Pro Ala Lys Met
    210                 215                 220
Glu Arg Lys Ala Ser Met Arg Arg Gln Gly Trp Glu Lys Glu Lys Asp
225                 230                 235                 240
Val Asp Gln Glu His Gly His Ala Thr Ala Asp Arg Val Lys Gly Gly
                245                 250                 255
Arg Thr Pro Arg Gly Ala His Asp Ala Ala Pro Gly Gly Asn Arg Pro
            260                 265                 270
Val Asp Asp Gln Lys Ala Ser Phe Gln Thr Gln Ser Phe Ser Asp Thr
        275                 280                 285
Phe Glu Lys Arg Pro His Glu Ser Gly Leu Leu Arg Asp Leu Pro Tyr
    290                 295                 300
Asn Leu Gln Gly Leu Ser Ser Ser Asn Leu Glu Phe Ser Ser Ser Thr
305                 310                 315                 320
Val Leu Lys Leu Pro Pro Thr Leu Pro Leu Pro Ile Leu Ser Leu Leu
                325                 330                 335
Asn Thr Leu Ala Glu Pro Cys Leu Leu Tyr Lys Gly Leu Ser Lys Tyr
            340                 345                 350
Val Glu Asp Ser Gly Gly Gly Leu Leu Thr Gln Ser Leu Arg Ala Ala
        355                 360                 365
Leu Ser Asn Glu Leu Arg Ser Tyr Leu Gly Leu Val Ala Thr Leu Glu
    370                 375                 380
Gly Glu Ile Arg Arg Ala Leu Ala Ala Ser Glu Asp Pro Tyr Gln Ser
385                 390                 395                 400
Lys Glu Ser Ser Lys Gly Leu Val Thr Leu Lys Arg Cys Val Val Trp
                405                 410                 415
Thr Arg Asp Ala Thr Met Ala Leu Arg Leu Met Ser Leu Ile Val Glu
            420                 425                 430
Glu Ala Cys Ser Lys Cys Ala Phe Arg Leu His His Gly Ala Gly Arg
        435                 440                 445
Ile Ser Ala Leu Lys Lys Thr Lys Val
    450                 455
```

<210> 36609
<211> 393
<212> PRT
<213> A.fumigatus

<400> 36609

```
His Ala Gln Val Tyr Pro Ala Ser Phe Lys Asp Ser Asn Gly Asp Gly
1               5                  10                  15
Trp Gly Asp Ile Pro Gly Leu Ile Ser Lys Val Pro Tyr Leu His Ser
            20                  25                  30
Leu Gly Val Asp Val Val Trp Leu Ser Pro His Tyr Asp Ser Pro Met
        35                  40                  45
His Asp Met Gly Tyr Asp Ile Ser Asp Tyr Glu Lys Val Leu Pro Ala
    50                  55                  60
Tyr Gly Thr Val Ala Asp Val Lys Lys Leu Ile Asp Glu Cys His Ala
65                  70                  75                  80
Arg Gly Met Lys Leu Ile Leu Asp Leu Val Val Asn His Thr Ser Asp
                85                  90                  95
Glu His Ala Trp Phe Lys Glu Ser Arg Ser Ser Arg Asp Asn Glu Lys
            100                 105                 110
Arg Asp Trp Tyr Phe Trp Arg Pro Ala Arg Tyr Asp Glu His Gly Asn
        115                 120                 125
Arg Leu Pro Pro Thr Asn Tyr Arg Gly Tyr Phe Ala Gly Ser Thr Trp
    130                 135                 140
Thr Trp Asp Glu Gln Thr Gln Glu Tyr Tyr Leu His Leu Tyr Ala Lys
145                 150                 155                 160
Glu Gln Pro Asp Leu Asn Trp Asp Asn Arg Ala Thr Arg Glu Ala Ile
                165                 170                 175
Tyr Asn Ser Ala Ile Arg Phe Trp Leu Asp Arg Gly Val Asp Gly Phe
            180                 185                 190
Arg Val Asp Thr Val Asn Lys Tyr Ser Lys Arg Thr Asp Phe Pro Asp
        195                 200                 205
Ala Pro Val Thr Asp Pro Lys Ser Tyr Ile Gln Pro Ala Val Glu Met
    210                 215                 220
Trp Cys Asn Gly Pro Arg Ile His Glu Phe Leu Arg Glu Met Tyr Asp
225                 230                 235                 240
Glu Ala Leu Ala Pro Tyr Gly Asp Val Met Thr Val Gly Glu Leu Ala
                245                 250                 255
Asn Thr Pro Asp Pro Asn Asp Val Leu Lys Tyr Val Gly Ala Ser Ala
            260                 265                 270
Lys Gln Leu Ser Met Val Phe His Leu Asp Ile Gly His Ile Gly Met
        275                 280                 285
Gly Ser Ser Leu Glu Asp Lys Tyr Ile Phe Gln Pro Trp Lys Leu Thr
    290                 295                 300
Glu Leu Lys Ala Ile Val Gly Lys Trp Gln Ser Phe Val Glu Gly Thr
305                 310                 315                 320
Asp Gly Trp Thr Thr Ala Phe Cys Glu Asn His Asp Asn Gly Arg Ser
                325                 330                 335
Val Ser Arg Phe Gly Ser Asp Asp Pro Glu Phe Arg Glu Arg Ser Ala
            340                 345                 350
Lys Met Leu Ala Leu Met Met Val Ala Met Thr Gly Thr Leu Phe Leu
        355                 360                 365
Tyr Gln Gly Gln Glu Ile Gly Met Ile Asn Ala Pro Arg Asp Trp Tyr
    370                 375                 380
Ser Pro Pro Gly Trp Lys Asp Gln Arg
385                 390
```

<210> 36610
<211> 653
<212> PRT
<213> A.fumigatus

<400> 36610
Ala Asn Ser Tyr Arg Gln Arg Arg His Pro Val Thr Val Gln Phe Pro
1 5 10 15
Ala Leu Ala Ser Leu Thr Leu Ala His Leu Thr Arg Asn Leu Gly Asn
20 25 30
Gly Leu Asp Arg Thr Leu Leu Gly Leu Ser Leu Val Leu Val Phe Leu
35 40 45
Arg Gln Ser Asp Glu Ser Pro Tyr Val Ile Tyr Leu Gly Leu Leu Leu
50 55 60
Pro Leu Leu Leu His Leu Pro Phe Ile Thr His His Ile Ser Leu Ala
65 70 75 80
Leu Leu His Pro Leu Ser Leu Asp Ser Pro Ala Gly Ser Pro Trp Ile
85 90 95
Asp Thr Trp Gln Thr Pro Glu Pro Pro Val Thr Val Asp Leu Thr Arg
100 105 110
Glu Leu Ser His Val Ser Ser Pro Ala Ala Pro Asp Thr Asp Leu Lys
115 120 125
Ser Thr Gly Met Ala Ser Arg Thr Asp Asn Phe Ser Leu Ser Ser Val
130 135 140
Thr Gly Ser Ser Val Arg His Thr Ala Met Val Arg Ser Gln Ser Gln
145 150 155 160
Gln Thr Pro Val Ser His Arg Lys Pro Leu Ala Pro Gly Val Leu Gly
165 170 175
His Arg Gln Tyr Tyr Gly Pro Gln His Trp Gln Ile Arg Leu Asp His
180 185 190
Val Asn Glu Tyr Thr Pro Ser Glu Tyr Ala Lys Gln Cys Leu Asp Asp
195 200 205
Phe Gln Asp Arg Ser Asn Val Ser Thr Leu Ser Leu Ala Leu Ser Ala
210 215 220
Asp Pro Ala Leu Asn Gly Ile Gln His Gln Leu Gln Ile Ser Thr Pro
225 230 235 240
Glu Phe Pro Ile Asn Pro Asn Gly Leu Ser Asn Gln Ser Leu Ala Asn
245 250 255
Gln Pro Ala Pro Leu Ala Ser Ala Ala Val Glu Met Thr Arg Ser Thr
260 265 270
Thr Thr Asp Ser Ile Cys Gly Gly Leu Gly Met Ile Arg Phe Asp Ser
275 280 285
Ala Gly Pro Asn Leu Thr Pro Ser Tyr Pro Phe Ser Met Pro Ser Thr
290 295 300
Glu Phe Met Pro Ser Val Ser Pro Ile Asn Val Pro Ile His Asp Tyr
305 310 315 320
Pro Ser Gln Gln Ala Leu Gln Pro Val Thr Phe Pro Phe Thr Asp Ser
325 330 335
Ala Pro Leu Pro Phe Ser Cys Ser Ala Pro Ser Ser Thr Ser Phe Tyr
340 345 350
Pro Pro Pro Ser Ser Asn Val Pro Glu Thr Pro Ala Thr Glu Met Lys
355 360 365
Pro Ser Met Ser Ala Glu Ser Asn Asn Ser Ala Ala Ser Gln Gln Ser
370 375 380
Arg Ala Ala Arg Arg Thr Gln Glu Gln Ile Ala Gln Gly Thr Arg Pro
385 390 395 400
Ile Ala Pro Lys Leu Glu Ser Arg Asn Thr Ser Pro Gly Lys Pro Val
405 410 415
Glu Gln His Lys Met Ile Arg Ile Ser Ser Ser Asp Gly Thr Ser Lys
420 425 430
Glu Val Ala Ala Ile Pro Lys Ala Ser Ile Gln Arg Pro Pro Arg Pro

```
        435                 440                 445
Lys Thr Tyr Cys His Met Cys Asn Asp Gln Pro Asp Gly Phe His Gly
    450                 455                 460
Glu His Glu Leu Arg Arg His Ile Glu Arg Val His Ser Val Val Arg
465                 470                 475                 480
Lys Val Trp Val Cys Val Asp Ile Ser Pro Gly Lys Thr Phe Leu Ala
                485                 490                 495
Asn Cys Lys Ala Cys Arg Asn Gly Lys Arg Tyr Gly Ala Asn Tyr Asn
            500                 505                 510
Ala Ala Ala His Leu Arg Arg Thr His Phe Asn Pro Cys Gln Arg Gly
        515                 520                 525
Arg Gly Gly Arg Gly Lys Asp Ser Glu Lys Arg Gly Gly Lys Gly Gly
    530                 535                 540
Gly Asn His Pro Pro Met Glu Val Leu Lys His Trp Met Val Gln Gln
545                 550                 555                 560
Glu Glu Phe Val Leu Glu Asn Ala Gln Asn Ala Val Asp Gln Glu Thr
                565                 570                 575
Ile Gly Lys Asp Leu Ala Ser Val Pro Leu Ser Ala Ser Thr Asp Glu
            580                 585                 590
Val Val Phe Asn Gly Leu Pro Ser Ala Pro Ala Asp Ser His Pro Gln
        595                 600                 605
Val Gly Met Glu Ala Asn Ile Ala Gln Gly Tyr Glu Gly Tyr Ser Asp
    610                 615                 620
Leu Gln Thr Met Thr Val Gly Pro Ser Leu Glu Thr Ala Cys Tyr Phe
625                 630                 635                 640
Asp Ser Gln Thr Leu Pro Pro Glu Ile Asp Ser Tyr Val
                645                 650
```

<210> 36611
<211> 115
<212> PRT
<213> A.fumigatus

<400> 36611

```
Val Arg Leu Thr Phe Gly Asp Val Asp Phe His Leu Val Ala Asp Arg
1               5                   10                  15
Tyr Thr Glu Ala Gly Ile Glu Val Asn Glu Glu Val Val Leu Met Thr
            20                  25                  30
Thr Lys Gly Glu Ala Ile Ala Ile Gly Ile Ala Gln Met Ser Thr Val
        35                  40                  45
Glu Leu Ser Thr Cys Asp His Gly Val Val Ala Lys Val Lys Arg Cys
    50                  55                  60
Ile Met Glu Arg Asp Leu Tyr Pro Arg Arg Trp Gly Leu Gly Pro Val
65                  70                  75                  80
Ala Leu Glu Lys Lys Lys Leu Lys Ser Ala Gly Lys Leu Asp Val Ser
                85                  90                  95
Cys Trp Val Pro Pro Pro Thr Phe Gly Phe Cys Gly Phe Trp Tyr Ala
            100                 105                 110
Asp Gln Pro
        115
```

<210> 36612
<211> 184
<212> PRT
<213> A.fumigatus

<400> 36612
Phe Ser Cys Ala Lys Arg Pro His Ser Lys Ser Lys Leu Ile Lys Gly
1 5 10 15
Asn Leu Ile Arg Phe Ala Gly Glu Phe Arg Val Ile Glu Thr Lys Pro
20 25 30
Ser Phe Ala Phe Glu Asp Val Leu Thr Val Ile Ser Leu Thr Lys Ala
35 40 45
Pro Ser Asp Ala Glu Phe Arg His Lys Ile Lys Pro Thr Lys Asp Leu
50 55 60
Leu Phe Arg Phe Ser Ala Leu Thr Phe Asn Ala His Ser Ile His Leu
65 70 75 80
Asp Thr Ser Tyr Thr Gln Asn Val Glu Gly Tyr Pro Ala Leu Leu Val
85 90 95
His Gly Pro Leu Thr Leu Thr Leu Leu Leu Thr Val Leu Gln Ser Tyr
100 105 110
Leu Val Glu Ser Asn Arg Ala Ile Arg Glu Ile Glu Tyr Arg Asn Leu
115 120 125
Cys Pro Leu Tyr Val Asp Glu Asp Leu Thr Ile Cys Gly Lys Pro Arg
130 135 140
Ala Asp Lys Gly Ser Gly Ala Trp Asp Ile Trp Ile Glu Gly His Asn
145 150 155 160
Gly Gly Leu Ala Val Arg Gly Thr Val Lys Thr Asp Lys Cys Ile Asn
165 170 175
Leu Arg Glu Asp Arg Arg Asp Gln
180

<210> 36613
<211> 67
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (67)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36613
Gly Ile Leu Ser Lys Leu Asp Asp Arg Thr Leu Thr Ala Leu Thr Phe
1 5 10 15
Ala Gln Ser Ala Leu Val Tyr Gly Gly Leu Leu Ser Gly Tyr Met Leu
20 25 30
Leu Phe Ile Pro Arg Leu Leu Tyr Ser Phe Arg Leu Ser Met Glu Ile
35 40 45
Tyr Phe His Phe Ser Ser Asp Arg Thr Gly Pro Phe Leu His Ile Arg
50 55 60
Ser Leu Xaa
65

<210> 36614
<211> 60
<212> PRT
<213> A.fumigatus

<400> 36614
Thr Phe Met Leu Ser Pro Glu Ala Cys Ser Asp Phe Tyr Leu Gly Ser
1 5 10 15

```
Ser Phe Asp Gln Val His Asn Ala Asp Phe Ser Lys Ile Thr Ala Gly
            20                  25                  30
Tyr Phe Leu Ser Gly Val Ile Phe Thr Ser Gly Glu Pro Asn Leu Ala
        35                  40                  45
Asp Arg Val Leu Thr Arg Ala Asn Leu Gln Gln Leu
    50                  55                  60
```

<210> 36615
<211> 221
<212> PRT
<213> A.fumigatus

<400> 36615

```
Asn His Gly Val Phe Cys Arg Ala Glu Lys Thr Gly His Ser Gly Thr
1               5                   10                  15
Leu Asp Pro Lys Val Thr Gly Cys Leu Ile Val Cys Ile Asp Arg Ala
            20                  25                  30
Thr Arg Leu Val Lys Ser Gln Gln Gly Ala Gly Lys Glu Tyr Val Cys
        35                  40                  45
Val Ile Arg Leu His Asp Lys Ile Pro Gly Gly Glu Ala Gln Phe Lys
    50                  55                  60
Arg Ala Leu Glu Thr Leu Thr Gly Ala Leu Phe Gln Arg Pro Pro Leu
65                  70                  75                  80
Ile Ser Ala Val Lys Arg Gln Leu Arg Ile Arg Thr Ile His Glu Ser
                85                  90                  95
Lys Leu Tyr Glu Phe Asp Asn Asp Arg His Leu Gly Val Phe Trp Val
            100                 105                 110
Ser Cys Glu Ala Gly Thr Tyr Ile Arg Thr Leu Cys Val His Leu Gly
        115                 120                 125
Leu Leu Leu Gly Val Gly Ala His Met Gln Glu Leu Arg Arg Val Arg
    130                 135                 140
Ser Gly Ala Met Asp Glu Asn Asn Gly Leu Val Thr Leu His Asp Val
145                 150                 155                 160
Leu Asp Ala Gln Trp Met Tyr Asp Asn Gln Arg Asp Glu Ser Tyr Leu
                165                 170                 175
Arg Arg Val Ile Gln Pro Leu Glu Ser Leu Leu Thr Thr Tyr Lys Arg
            180                 185                 190
Ile Val Val Lys Asp Ser Ala Val Asn Ala Val Cys Tyr Gly Ala Lys
        195                 200                 205
Leu Met Ile Pro Gly Leu Leu Arg Phe Gly Lys Phe Asp
    210                 215                 220
```

<210> 36616
<211> 132
<212> PRT
<213> A.fumigatus

<400> 36616

```
Val Ala Gly Phe His Leu Gln His Leu Val Phe Val Val Phe Gly Thr
1               5                   10                  15
Leu Thr Ser Pro Lys Lys Tyr Gly Arg Ala Asn Glu Asp Thr Pro Ala
            20                  25                  30
Lys Trp Lys Thr Glu Tyr Lys Asp Tyr Ser Ala Pro Glu Glu Ala Ser
        35                  40                  45
Ala His Ala Ala Ser Glu Ser Thr Ala Lys Glu Asp Val Ala Ala Ala
    50                  55                  60
```

```
Leu Ala Thr Glu Gln Asp Glu Ala Pro Ser Ser Pro Gln Ser Lys Met
65                  70                  75                  80
Asp Val Asp Glu Thr Lys Glu Glu Lys Lys Arg Lys Arg His Glu Gly
                85                  90                  95
Glu Thr Ala Glu Glu Arg Ala Glu Arg Lys Arg Lys Lys Lys Glu Lys
            100                 105                 110
Lys Glu Lys Lys Glu Arg Arg Lys Ser Lys Gln Glu Lys Glu Asp Ser
        115                 120                 125
Asp Asp Ser Asp
    130
```

<210> 36617
<211> 85
<212> PRT
<213> A.fumigatus

<400> 36617

```
Leu Glu Leu Phe Leu Leu Gln Ser Tyr Arg Ala Gln Ser Pro Ser Ala
1               5                   10                  15
Arg Val Glu Ile Thr Phe His Asp Ala Thr Phe Asp Leu Ser Tyr Asp
            20                  25                  30
Thr Met Ile Ala Ser Gly Lys Phe Asn Ser Arg His Leu Ser Asn Ala
        35                  40                  45
Asn Gly Asp Gly Phe Thr Leu Cys Ser His Glu Asn Asn Phe Phe Val
    50                  55                  60
Asp Phe Asn Ala Ser Leu Cys Val Ser Val Ser Asn Gln Val Lys Ile
65                  70                  75                  80
Asn Ile Thr Glu Ser
                85
```

<210> 36618
<211> 86
<212> PRT
<213> A.fumigatus

<400> 36618

```
Thr Ser Pro Asp Thr Leu Leu Phe Leu Val Phe His Asp Arg Ala Asp
1               5                   10                  15
Thr Pro Leu Tyr Ile Asp Gln Asn Phe Phe Leu Pro Leu Val Ala Phe
            20                  25                  30
Asp Tyr Tyr Val Pro Asn Arg Phe Asn Ala Asp Ser Pro Thr Ala Ile
        35                  40                  45
Lys Glu Arg Thr Val His Gln Trp Glu Ser Asn Pro Thr Thr Ser Pro
    50                  55                  60
Lys Thr Pro Asp Lys Trp Arg Ser Trp Glu Met Gln Cys Ile Ser Thr
65                  70                  75                  80
Val Arg Glu Tyr Leu Arg
                85
```

<210> 36619
<211> 665
<212> PRT
<213> A.fumigatus

<400> 36619

```
Val Ser Phe Ile Leu Pro Arg Gln Ser Thr Asp Lys Met Tyr Phe Ser
```

```
1               5                   10                  15
Pro His Ala Ser Ser Ser Ala Tyr Glu Ser Gln Lys Phe Ser Lys Gln
            20                  25                  30
Lys Thr Val Ser Pro Arg Lys Gln Gln His Phe Gln Ala Glu Lys Gly
        35                  40                  45
Ser Thr His Thr Arg Asn Ser Ser Thr Gly Leu Ser Val Tyr Ser Ile
    50                  55                  60
Glu Ser Lys Glu Ile Pro Ile Trp Phe Ser Val Phe Phe Gly Lys Pro
65                  70                  75                  80
Ser Leu Leu Ser Pro Gln Leu Asp Asn Ala Arg Phe Asp Ala Arg Ile
                85                  90                  95
Ser Glu Arg Val Phe Gly Pro Ser Ser Thr Pro Ala Asn Ser Pro Ser
            100                 105                 110
Lys Ser Ser Phe Arg Thr Ser Val Ser Ser Asn Val Ser Leu Pro Arg
        115                 120                 125
Pro Gly Leu Leu Glu Glu Thr Pro Val Ile Arg Ala Ile Leu Ser Leu
    130                 135                 140
Cys His Ser Phe Glu Gly Glu Ile Leu Asn Cys Val Thr Asp Gly Cys
145                 150                 155                 160
Thr Ile Cys Gly Lys Gly Pro Ala Gln Ser Leu Val His His Pro Leu
                165                 170                 175
Cys Ala Thr Arg Tyr Gly Tyr Val Glu Leu Ser Asp Phe Val Glu Met
            180                 185                 190
His Lys Leu Val Ser Thr Val Ala Ser His Thr Ser His Val Thr Arg
        195                 200                 205
Arg Asp Glu Ile Asp Trp Ser Val Gly Asp Val Met Ser Asp Arg Pro
    210                 215                 220
Tyr Ile Cys Ser Leu Ala Val Pro Ile Cys Ser Ser Glu Gly Glu Cys
225                 230                 235                 240
His Arg Ala Ala Arg Arg Leu Met Glu Met Tyr Ile Asp Gly Ile Lys
                245                 250                 255
Asp Gly Ser Val Lys Pro Lys Ala Leu Asp Lys Phe Glu Thr Pro Asp
            260                 265                 270
Arg Thr Ser Leu Pro Gln Arg Arg Ser Val Thr Ser Gln Arg Ser Phe
        275                 280                 285
Arg Leu Asn Ala Thr Lys Lys Glu Asp Tyr Ser Val Ser Thr Leu Cys
    290                 295                 300
Leu Arg Ser Pro Ser Ile Glu Thr Leu Gly Ser Pro Ser Ala Gln Pro
305                 310                 315                 320
Tyr Lys Ile Gly Ala Thr Met Phe Val Gly Arg Pro Ser Leu Gln Leu
                325                 330                 335
Ser Gly Thr Pro Arg Arg Gly Gln Leu Gly Cys Ser Val Phe Ser Ser
            340                 345                 350
Thr Trp Ser Gly Ala Ala Leu Pro Gly Val Ala Lys Asn Glu Ala Asp
        355                 360                 365
Asp Ala Val Phe Tyr Cys Arg Ile Ala Ala Phe Tyr Glu Ser His Ile
    370                 375                 380
Leu Ser Ser Val Ser Tyr Arg Cys Ala Val Cys Ser Glu Val Ala Pro
385                 390                 395                 400
Ala Arg Ser Leu Val His Arg Pro Leu Leu Phe Thr Gln Thr Tyr Arg
                405                 410                 415
Ser Gly Leu Gln Asn Glu Ser Glu Arg Arg Leu Ile Val Lys Leu Ser
            420                 425                 430
Gln Phe Val Gln Gly Arg Trp Ser Tyr Pro Glu Met Asn Ala Val Met
        435                 440                 445
Gly Gly Thr Thr Asp Ala His Ile Phe Asp Leu Ile Val Pro Ile Cys
```

```
    450                 455                 460
Glu Ser Asn Thr Leu Cys Ala Glu Val Ala Arg Thr Ser Ala Arg Glu
465                 470                 475                 480
Phe Val Lys Leu Leu Leu Pro Ser Asp Met Ala Leu Ile Phe Pro Gly
                485                 490                 495
Leu Asp Pro Asp Thr Asp Leu Ser Leu Met Glu Asp Glu Ala Ala Asp
            500                 505                 510
Glu Tyr Cys Tyr Lys Pro Glu Tyr Ala Glu Ile Leu Val His Arg Ile
        515                 520                 525
Gly Cys Asp Leu Leu Thr Ile Thr Cys Glu Glu Arg Asp Glu Asp Pro
    530                 535                 540
Met Asp Cys Ser Leu Thr Ile Thr Lys Leu Arg Arg Trp Tyr Glu Leu
545                 550                 555                 560
Ala Phe Glu Glu Glu Asn Ala Lys Arg Leu Tyr Leu Glu Asp Ile Gly
                565                 570                 575
Tyr Lys Arg Thr Gly Asp Arg Ser Glu Ser Asp Ser Asp Asp Ser Glu
            580                 585                 590
Ile Glu Asp Asp Leu Val Trp Val Tyr Ala Leu Asn Asp Pro Asp Asp
        595                 600                 605
Ser Ser Ser Arg Arg Asn Ser Ala Arg Leu Ser Asn Arg Glu Leu Thr
    610                 615                 620
Arg Gln Asp Ser Ala Ile Arg Thr Phe Glu Lys Leu Ala Leu Phe Gln
625                 630                 635                 640
Pro Thr Leu Ser Leu Glu Phe Trp Lys Val Trp Glu Ala Met Lys Ser
                645                 650                 655
Ser Asp His Lys His Ala Ser Pro His
            660                 665
```

<210> 36620
<211> 235
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (163)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36620

```
His Asn Ile Ile Asn Leu Arg Glu Asp Ile Lys Leu Cys Gln Gln Lys
1               5                   10                  15
Gly Lys Thr Ile Leu Ile Ser Ile Gly Gly Ala Ala Ser Pro Glu Leu
            20                  25                  30
Gly Phe Ala Ser Glu Ala Ala Ala Ile Glu Ala Ala Asn Lys Met Trp
        35                  40                  45
Gln Ile Phe Gly Pro Val Asp Ala Asp Asn Thr Ala Tyr Arg Pro Phe
    50                  55                  60
Gly Asp Ala Ala Ile Asp Gly Phe Asp Phe Asp Phe Glu Thr Ser Val
65                  70                  75                  80
Thr Asn Ile Val Pro Phe Ala Asn Gln Leu Arg Arg Leu Met Asp Thr
                85                  90                  95
Ser Ala Gly Arg Arg Tyr Tyr Leu Thr Val Ala Pro Gln Cys Val Phe
            100                 105                 110
Pro Asp Val Ala Asp Gln Glu Met Leu Asn Gly Ala Val Ala Phe Asp
        115                 120                 125
Ala Ile Trp Val Gln Phe Tyr Asn Asn Tyr Cys Gly Val Asn Ala Phe
```

```
    130                 135                 140
Ser Phe Gly Thr Met Gln Gln Asp Ala Phe Asn Phe Asp Leu Trp Asp
145                 150                 155                 160
Ala Trp Xaa Lys Ser Gln Ser Lys Asn Lys Gln Val Lys Phe Phe Ile
                165                 170                 175
Gly Leu Pro Gly Asn Val Val Ala Ala Gly Thr Gly Tyr Val Gly Ala
            180                 185                 190
Glu Gln Leu Arg Glu Ile Val Ala Trp Ser Lys Ala Phe Ser Ser Phe
        195                 200                 205
Gly Gly Ile Met Ile Trp Asp Ala Ser Ser Met Asp Ala Asn Gln Gly
    210                 215                 220
Tyr Leu Glu Ser Val Lys Lys Thr Leu Ile Gly
225                 230                 235
```

<210> 36621
<211> 411
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (409)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36621

```
Ser Thr His Leu Arg Phe Gln Ser Gln Gly His Phe Ser Cys Phe His
1                   5                   10                  15
Pro Thr Asp Leu Pro Phe Phe Thr Leu Ser Asp Ser Phe Gln His Asn
            20                  25                  30
Ile Met Gly Lys Lys Ala Ile Gln Phe Gly Gly Gly Asn Ile Gly Arg
        35                  40                  45
Gly Phe Val Ala Glu Phe Leu His Glu Ala Gly Tyr Glu Val Val Phe
    50                  55                  60
Ile Asp Val Val Asp Lys Ile Ile Asp Ala Leu Lys Ser Thr Pro Ser
65                  70                  75                  80
Tyr Glu Val Thr Glu Val Ser Glu Glu Gly Glu Lys Thr Lys Thr Ile
                85                  90                  95
Thr Asn Tyr Arg Ala Ile Asn Ser Lys Thr Asn Glu Glu Asp Val Val
            100                 105                 110
Lys Glu Ile Gly Thr Ala Asp Val Val Thr Cys Ala Val Gly Pro Asn
        115                 120                 125
Val Leu Lys Phe Ile Ala Pro Val Ile Ala Lys Gly Ile Asp Ala Arg
    130                 135                 140
Thr Ala Ser Lys Pro Val Ala Val Ile Ala Cys Glu Asn Ala Ile Gly
145                 150                 155                 160
Ala Thr Asp Asn Leu Arg Gly Phe Ile Glu Gln Asn Thr Asp Lys Asp
                165                 170                 175
Arg Leu Ser Ser Met Ser Glu Arg Ala Arg Val Ala Asn Ser Ala Ile
            180                 185                 190
Asp Arg Ile Val Pro Asn Gln Pro Pro Asn Ala Gly Leu Asn Val Arg
        195                 200                 205
Ile Glu Lys Phe Tyr Glu Trp Thr Val Glu Gln Thr Pro Phe Gly Glu
    210                 215                 220
Phe Gly His Pro Asp Ile Pro Ala Ile His Trp Val Asp Asp Leu Lys
225                 230                 235                 240
Pro Tyr Ile Glu Arg Lys Leu Phe Thr Val Asn Thr Gly His Ala Thr
```

```
                245                 250                 255
Thr Ala Tyr Tyr Gly His Met Arg Gly Lys Lys Met Ile Ala Asp Ala
            260                 265                 270
Leu Ala Asp Ala Glu Ile Arg Gln Thr Val His Lys Val Leu Glu Gln
        275                 280                 285
Thr Ala Lys Leu Ile Thr Thr Lys His Glu Ile Thr Glu Gln Glu Gln
    290                 295                 300
Asn Glu Tyr Val Asp Thr Ile Val Lys Arg Met Ser Asn Pro Phe Leu
305                 310                 315                 320
Glu Asp Asn Val Glu Arg Val Gly Arg Ala Pro Leu Arg Lys Leu Ser
                325                 330                 335
Arg Asn Glu Arg Phe Ile Gly Pro Ala Ser Gln Leu Ala Glu Lys Gly
            340                 345                 350
Leu Pro Phe Asp Ala Leu Leu Gly Ser Ile Glu Met Ala Leu Arg Phe
        355                 360                 365
Gln Asn Val Pro Gly Asp Glu Glu Ser Ala Glu Leu Ala Lys Ile Leu
    370                 375                 380
Lys Glu Thr Pro Pro Lys Arg Pro Val Ile Thr Ala Gly Leu Ile Asp
385                 390                 395                 400
Gln Asp Leu Arg Ser Thr Pro His Xaa Ser Ala
                405                 410
```

<210> 36622
<211> 214
<212> PRT
<213> A.fumigatus

<400> 36622

```
Phe Ser Ala Phe Phe Ile Ala Gly His Ile Leu Glu Ala Lys Ser His
1               5                   10                  15
Leu Asp Arg Ala Gln Gln Cys Ile Lys Arg Gln Ala Leu Leu Ser Glu
            20                  25                  30
Leu Arg Gly Arg Pro Asp Glu Ala Phe Val Ser Arg Gln Leu Ala Lys
        35                  40                  45
Gly Ser Thr Ser His Thr Leu Asn Val Val Phe Gln Glu Trp Ile Gly
    50                  55                  60
His Thr Phe His Asp Gly Val Asp Ile Leu Ile Leu Leu Leu Leu Gly
65                  70                  75                  80
Asp Leu Val Leu Gly Cys Asn Glu Leu Cys Gly Leu Phe Gln Asn Leu
                85                  90                  95
Val Asp Ser Leu Ala Asp Leu Gly Val Gly Lys Ser Val Ser Asp His
            100                 105                 110
Leu Leu Ala Ala His Val Thr Val Val Gly Ser Gly Gly Met Ala Gly
        115                 120                 125
Val Asp Gly Glu Glu Leu Ala Phe Asp Val Gly Leu Gln Ile Val Asn
    130                 135                 140
Pro Val Asn Ser Arg Asp Ile Arg Met Ala Glu Leu Ala Lys Arg Ser
145                 150                 155                 160
Leu Leu His Arg Pro Phe Val Lys Phe Leu Asp Ala Asp Ile Glu Ala
                165                 170                 175
Gly Val Arg Gly Leu Val Gly Asp Asp Ala Val Asp Ser Gly Val Gly
            180                 185                 190
Asp Thr Ser Thr Leu Thr His Arg Ala Glu Thr Val Leu Ile Gly Val
        195                 200                 205
Leu Leu Asp Glu Ala Ala
    210
```

<210> 36623
<211> 122
<212> PRT
<213> A.fumigatus

<400> 36623
Phe Gln Pro Gly Phe Gly Cys Leu Ser Ala Leu Ile Val Met Met Ser
1 5 10 15
Leu Ser Phe Thr Tyr Leu Ser Pro Asp Ser Ala Phe Ile Val Ser Pro
20 25 30
His Phe Ser Tyr Ile Phe Arg Ala Leu Tyr Leu Leu Ile Thr Thr Ser
35 40 45
Leu Ile Ser Arg Arg Val Leu Val Thr Gly Pro Pro Tyr Phe Ser Ser
50 55 60
Asn Phe Val Thr Leu Cys Met Leu Glu Leu Val Tyr Leu Val Leu Asp
65 70 75 80
Phe Ile Leu Pro Ser Thr Arg Phe Ile Leu Val Ile Tyr Leu Ser Ser
85 90 95
Gly Phe Leu Val Ile Ala His Ser Asp Phe Val Thr Phe Val Ser Tyr
100 105 110
Pro Pro His Ala Ile Cys Cys Met Leu His
115 120

<210> 36624
<211> 99
<212> PRT
<213> A.fumigatus

<400> 36624
Asp Gly Trp Arg Arg Leu Leu Gly Ser Arg Leu His Leu Cys Pro Ser
1 5 10 15
Ser Asp Glu Val Ser Phe Tyr Ile Val Tyr Thr Pro His Val Asp Asp
20 25 30
Ala Asn Asn Gly Asp Lys Val Tyr Asn Trp Thr Glu Leu Arg Pro Asp
35 40 45
Ser Lys Ile Arg His Thr Trp Ile Ala Phe Asp Cys Leu Asp Ser Pro
50 55 60
Asn Thr Leu Leu Ile Gly Glu Phe Gln Glu Gly Asp Ala Ser Thr Leu
65 70 75 80
Ile Leu Leu Val Lys Tyr Pro Leu Asp Tyr Thr His Ala Gly Cys Ala
85 90 95
Arg Pro Ala

<210> 36625
<211> 393
<212> PRT
<213> A.fumigatus

<400> 36625
Leu Arg Glu Asp Ile Ser His Phe Ala Met Thr His Gln Ala Gln Ala
1 5 10 15
Val Asn Ala Pro Val Ser Ser Ala Leu Pro Ser Gly Asn Met Arg Gln
20 25 30
Arg Ser Arg Gln Ala Cys Ala Pro Cys Arg Gln Arg Lys Arg Lys Cys

```
        35                  40                  45
Asp Gly Lys Phe Pro Cys Ser Ala Cys Thr Gly Tyr Gly Tyr Asp Cys
    50                  55                  60
Gln Phe Leu Asp Asp Ser Val Asn Ser Val Lys Arg Asn Ala Asp Ala
65                  70                  75                  80
Val Ser Ser Leu Pro Leu Pro Ser Thr Lys Ala Ala Arg Leu Ser Glu
                85                  90                  95
Val Thr Ala Lys Ser Leu Gly Gly Ser Ser Val Ile Ser Ser Ser Ser
            100                 105                 110
His Gly Ile Leu Asp Pro Ser Lys Leu Arg Tyr Met Gly Arg His Ala
        115                 120                 125
Ser Val Ala Phe Pro Met Thr Val Gly Leu Glu Leu Gln Ala Ala Lys
    130                 135                 140
Pro Pro Arg Leu His Ser Phe Ala Tyr Asn Pro Gly Val Arg Thr Glu
145                 150                 155                 160
Pro Ser Cys Gly Val Ser Phe Asn Leu Thr Ala Phe Ile Ser Trp Asp
                165                 170                 175
Lys Val Arg Ser Leu Met Asp Val Tyr Ser Ser Thr Val His Pro Val
            180                 185                 190
Phe Gly Leu Leu Asp Met Glu Arg Leu Tyr His Arg Cys Glu Glu His
        195                 200                 205
Trp His Gly Lys Ala Gln Gly Leu Gly Leu Glu Ala Leu Ile Ser Gly
    210                 215                 220
Val Ile Ala Leu Ser Ser Leu Phe Ser Gly Phe Leu Ser Glu Glu Glu
225                 230                 235                 240
Glu Thr Arg Val Met Leu His Ala Lys Glu Ile Leu Glu Asp Ala Ser
                245                 250                 255
Val Ser Arg Lys Pro Ser Ile Asp Lys Ile Ala Gly Trp Ile Leu Arg
            260                 265                 270
Thr Ile Tyr Val Arg Ala Thr Ser Arg Pro His Ser Ala Trp Met Cys
        275                 280                 285
Ser Cys Thr Leu Met His Leu Val Glu Ala Ala Gly Leu His Gln Pro
    290                 295                 300
Leu Asp Ala Val Ile Leu Thr Thr Gly Ser Ser Gly Arg Lys Ala Leu
305                 310                 315                 320
Glu Asp Ile Thr Glu Thr Arg Asp Arg Ile Ala Gln Val Ala Gln Cys
                325                 330                 335
Leu Asn Ile Ile Ile Ala Tyr Asp Tyr Gly Arg Ser Val Ile Asp Leu
            340                 345                 350
Gly Leu Thr Trp Lys Arg Asp Ser Lys Ser Asp Ala Pro Ser Asn Asp
        355                 360                 365
Leu Thr Pro Gln Leu Phe Ser Leu Ile Gly Ala Val Pro Leu Asp Asn
    370                 375                 380
Asn Ala Asp Pro Ala Ala Lys Arg Gly
385                 390
```

<210> 36626
<211> 82
<212> PRT
<213> A.fumigatus

<400> 36626

```
Ile Ser Trp Leu Ser Gln Arg Phe Thr Val Gly Lys Val Cys Pro Ala
1               5                   10                  15
Ile Cys Phe Leu Trp Ala Val Val Val Pro Cys Thr Pro Ala Cys Thr
            20                  25                  30
```

```
Asn Tyr Thr Gly Met Leu Ile Asn Arg Phe Met Leu Gly Leu Ile Glu
        35                  40                  45
Ser Gly Val Ser Pro Ala Phe Met Leu Cys Thr Gly Met Trp Tyr Thr
    50                  55                  60
His Ser Glu Gln Val Phe Arg Ser Ser Leu Cys Ser Pro Ser Ala Gly
65                  70                  75                  80
Leu Ser
```

<210> 36627
<211> 99
<212> PRT
<213> A.fumigatus

<400> 36627

```
Asn Arg Lys Ser Ser Ala Gly Tyr Asn Leu Asn Ala Leu Phe Thr Gly
1               5                   10                  15
Ser Glu Gly Thr Leu Gly Met Ile Thr Glu Ile Thr Leu Lys Leu Ala
            20                  25                  30
Pro Ile Pro Glu Thr Gln Ser Ala Ala Val Ala Thr Phe Ser Ser Val
        35                  40                  45
Arg Asn Ala Val Ala Cys Ala Thr Lys Ile Met Arg Gln Gly Ile Pro
    50                  55                  60
Val Ala Ala Val Glu Leu Met Asp Glu Val Gln Met Gln Val Ile Asn
65                  70                  75                  80
Lys Asn Gly Gly Ala Gly Gly Arg Leu Trp Glu Glu Lys Pro Thr Leu
                85                  90                  95
Met Phe Lys
```

<210> 36628
<211> 193
<212> PRT
<213> A.fumigatus

<400> 36628

```
Val Asp Lys Ile Thr Ser Trp Pro Ala Tyr Thr Phe Leu Ala Glu Arg
1               5                   10                  15
Gln Ile Gly Phe Arg Val Pro Ser Ser Leu Tyr Pro Leu Ile Leu Arg
            20                  25                  30
Glu Ser Lys Lys Ser Ser Leu Arg Lys Glu Ala Val Arg Ser Ser Leu
        35                  40                  45
Arg Gly Gln Arg Lys Arg Cys Val Thr Tyr Gly Leu Leu Gly Arg Lys
    50                  55                  60
Pro Cys Gly Pro Cys Val His Arg Gly Arg Arg Ala Arg Lys Tyr Gly
65                  70                  75                  80
Pro Pro Met Leu Pro Cys His Tyr Leu Ala Tyr Pro Arg Ser Leu Val
                85                  90                  95
Ser Leu Ser Ile Val Val Glu Tyr Thr Trp Lys Met Leu Met Val Cys
            100                 105                 110
Val Leu Pro Glu Leu Ser Lys Thr Glu Ser Ser Ser Leu Gly Leu Phe
        115                 120                 125
Ser Ser Val Leu Gly His Val Gly Asp Gly Asn Phe His Gln Ala Val
    130                 135                 140
Met Tyr Asp Pro Ser Asp Pro Ser Glu Ala His Gly Val Arg Glu Cys
145                 150                 155                 160
```

```
Val Arg Lys Met Val Arg Arg Ala Val Glu Met Glu Gly Thr Val Ser
                165                 170                 175
Val Arg Tyr Val Pro Glu Ala Phe Ile Leu Ser Leu Ile Asp Arg Leu
            180                 185                 190
Phe
```

<210> 36629
<211> 61
<212> PRT
<213> A.fumigatus

<400> 36629

```
Glu Ile Leu Phe Trp Thr Ser Glu Gln Leu Leu Thr Gln Ile Val Pro
1               5                   10                  15
Phe Gly Ala Gly Ser Ser Val Glu Gly Asn Phe Thr Thr Pro His Ser
            20                  25                  30
Gly Ile Ser Ile Asp Phe Ser Gln Met Asn Lys Ile Ile Ala Leu His
        35                  40                  45
Glu Asp Glu Cys Val Ser Pro Arg Trp Leu Glu Gly Ile
    50                  55                  60
```

<210> 36630
<211> 62
<212> PRT
<213> A.fumigatus

<400> 36630

```
His Ala Arg Gln Ser Ala Met Lys Lys Leu Ile Glu Leu Gly Ser Gly
1               5                   10                  15
Thr Asn Ala Val Arg Tyr Gly Thr Met Lys Asp Trp Val Ile Asn Leu
            20                  25                  30
Thr Val Val Leu Ala Asp Gly Ser Val Ile Lys Thr Arg His Arg Pro
        35                  40                  45
Arg Tyr Arg Asp Pro Arg His Pro Arg His Trp Ser Ile Ser
    50                  55                  60
```

<210> 36631
<211> 87
<212> PRT
<213> A.fumigatus

<400> 36631

```
Lys Thr Asp Arg Phe Ser Gly Thr Glu Gln Ser Val Ser Ala Asp Ile
1               5                   10                  15
Ala Arg Val Glu Lys Ile Ile Ser Gln Glu Gly Gly Ser Ala Phe Glu
            20                  25                  30
Phe Ala Arg Thr Glu Lys Glu Met Arg Asn Leu Trp Ser Ala Arg Lys
        35                  40                  45
Glu Ala Val Trp Ala Met Cys Ala Gln Arg Pro Glu Gly Thr Gln Ile
    50                  55                  60
Trp Ser Thr Asp Val Ala Val Pro Leu Ser Ser Leu Pro Glu Ile Ile
65                  70                  75                  80
Gly Gln Ser Val Tyr Cys Arg
                85
```

<210> 36632
<211> 243
<212> PRT
<213> A.fumigatus

<400> 36632
Lys Lys Arg Gln Lys Val Tyr Ser Ala Ser Ser Ser Val Ser Gly Gly
1 5 10 15
Leu Gly Val Pro Leu Gly Asp Cys Asn Leu Trp Arg Val Ser Ser Leu
20 25 30
Gln Lys Val Lys Ser His Lys Ile Arg Arg Ser Ile Pro Phe Lys Val
35 40 45
Thr Gln Ser Thr Ala Arg Leu Ala Leu Leu Gln Leu Ser Thr Ser His
50 55 60
Leu Leu Leu Leu Pro Gly Leu Glu Leu Gln Phe Ala Leu Ile Phe Gly
65 70 75 80
Ala Arg Val Asp Ser Arg Gly Ser Gly Ala Gly Ser Arg Arg Val Gly
85 90 95
Asp Gly Ala Ala Gly Leu Arg Arg Thr Gly Gly Ala Val Leu Glu Ala
100 105 110
Val Glu Ser Asp Gly Gly Val Gly Ala Ser Asp Asn Ala Thr Ile Gly
115 120 125
Asp Val Gln Leu Leu Gly Ala Gln Gly Thr His Glu Leu Phe Val Val
130 135 140
Gly Asn His Asp Asp Thr Ser Leu Glu Val Thr Asp Gly His Cys Gln
145 150 155 160
Thr Thr Glu Arg Val Thr Val Gln Glu Ile Gly Arg Leu Val Gln His
165 170 175
Gln Gln Val Arg Val Val Pro His Gly Thr Gly Gln Asp Asn Leu Asp
180 185 190
Leu Leu Thr Thr Gly Glu Thr Gly Asp Leu Val Val Val Gly Asn Leu
195 200 205
Arg Val Gln Thr Asp Ile Leu Lys Val Phe Arg Asp Arg Leu Gly Phe
210 215 220
Lys Asp Ser Glu Thr Glu Ala Leu Thr Gly Gly Phe Val Ile Val Lys
225 230 235 240
Leu Leu Asp

<210> 36633
<211> 462
<212> PRT
<213> A.fumigatus

<400> 36633
Leu Glu Glu Ala Lys Leu Asp Gln Gly Leu Thr Arg Asp His Gly Ile
1 5 10 15
Val Leu Gly Lys Lys Ala Asp Pro Phe Asp Phe Val Leu Glu Gly Leu
20 25 30
Leu Pro Leu Leu Thr Thr His Asp Gly Phe Asp Ala Ala Arg Ala Pro
35 40 45
Ala Val Ser Glu Val Asp Arg Leu Leu His Leu Arg Leu Val Leu Leu
50 55 60
Arg Gln Asn Ser Gly Leu Leu Glu Glu Asp Phe Ala Val Val Ser Val
65 70 75 80
Gly Ile Thr Pro Leu Gln Val Leu Ala Gly Ser Leu Leu Glu Met His

```
                85                  90                  95
Phe Asn Val Leu Gln Ser Val Leu Leu Asp Val Ser Asp Pro Lys Val
            100                 105                 110
Gly Val Leu Leu Asn Leu Ser Cys Leu Gly Asn Arg Leu Thr Arg Gln
        115                 120                 125
His Leu Asp Glu Ser Arg Phe Thr Ser Thr Val Ser Thr Asn Asp Gly
    130                 135                 140
Asp Ala Arg Arg Glu Gly Lys Arg Glu Gly Gly Val Asn Gln Arg Arg
145                 150                 155                 160
Leu Ala Arg Thr Arg Val Gly Ile Arg Ala Val Gly His Ser Lys Asp
                165                 170                 175
Gly Ala Gly Val Gly Leu Asp Ala Gly Gln Asp Pro Gly Gly Arg Glu
            180                 185                 190
Leu Glu Leu His His Ala Gly Gly Gln Gly Val Val Ala Leu Gly Phe
        195                 200                 205
Gly Leu Leu Leu Asp Lys Ser Gly Gln Val Ala Leu Val Val Asp Gln
    210                 215                 220
Leu Leu Ser Phe Val Val Val Asp Val Gly Ala Asp Leu Val Gln Glu
225                 230                 235                 240
Ser Arg Val Val Thr Asp Asn Lys Thr Gly Asp Val Ser Val Leu Leu
                245                 250                 255
Gln Val Leu Leu Gln Pro Leu Asp Val Gly Asp Ile Glu Met Val Ser
            260                 265                 270
Arg Phe Val Gln Lys Gln His Ile Ser Leu His Glu His Ser Thr Gly
        275                 280                 285
Gln Ser Gln Leu His Leu Pro Thr Thr Arg Glu Gly Pro Asn Thr Leu
    290                 295                 300
Val Leu Ser Ser Leu Gly Ala Ile Gly Lys Ser Glu Phe Glu Glu Asn
305                 310                 315                 320
Thr Ala Asn Val Phe Leu Ser Gly Phe Gly Asn Leu Gly Val Leu Gly
                325                 330                 335
His Ile Phe Asp Asp Ala Gln Ile Gly Val Phe Ala Leu Ile Val Leu
            340                 345                 350
Asp Glu Ala Arg Ala Asp His Ile Leu Arg Arg Glu Pro Leu Glu Leu
        355                 360                 365
Leu Ile Gly Asn Thr Ala His Glu Gly Arg Leu Ala Gly Thr Val Pro
    370                 375                 380
Thr Thr Glu Ala Val Ala Val Ala Leu Glu Lys Thr Lys Val Arg Val
385                 390                 395                 400
Arg Lys Glu Lys His Ser Ser Val Ser Glu Gly Glu Val Gly Val Asp
                405                 410                 415
Asn Leu His Leu Val Gly Val Val Arg Asn Gly Leu Ala Lys Leu Ala
            420                 425                 430
Gly Asp Leu Pro Arg Ile Lys Cys Ser Trp Thr Ala Arg Val Asp Ser
        435                 440                 445
Leu Arg Ala Cys His Pro Trp Glu Glu Ser Pro Lys Asp Lys
    450                 455                 460
```

<210> 36634
<211> 176
<212> PRT
<213> A.fumigatus

<400> 36634

```
Ser Gly Pro Ala Asp Ile Val Lys Phe Pro Ser Leu Cys Leu Gln Asp
1               5                   10                  15
```

```
Gly Pro Gln Gly Leu Arg Phe Ala Asp His Val Ser Ala Phe Pro Ala
            20                  25                  30
Gly Ile Thr Thr Gly Ser Thr Trp Asn Arg Glu Leu Met Arg Glu Arg
        35                  40                  45
Gly Val Ala Met Gly Arg Glu Ala Arg Leu Lys Gly Val Asn Val Leu
    50                  55                  60
Leu Gly Pro Ser Met Gly Pro Leu Gly Met Met Pro Ala Gly Gly Arg
65                  70                  75                  80
Asn Trp Glu Gly Phe Gly Ser Asp Pro Val Leu Gln Ala Val Ala Ala
                85                  90                  95
Ala Glu Thr Ile Arg Gly Ile Gln Ser Asn Gly Val Met Ala Thr Ala
            100                 105                 110
Lys His Phe Val Met Asn Glu Gln Glu His Phe Arg Gln Pro Phe Glu
        115                 120                 125
Trp Gly Ile Pro Thr Ala Leu Ser Ser Asn Val Gly Asp Arg Ala Leu
    130                 135                 140
His Glu Val Phe Ala Trp Pro Phe Ala Glu Ser Ile Arg Ala Asp Leu
145                 150                 155                 160
Ala Asn Arg Asp Val Leu Val Ser Asn Gly Glu Gln Gln Pro Thr Leu
                165                 170                 175
```

Sequence Listing

<210> 36635
<211> 680
<212> PRT
<213> A.fumigatus

<400> 36635

```
Leu Ile Phe Arg Gly Leu Phe Pro Arg Met Thr Ser Thr Glu Ala Val
1               5                   10                  15
Asp Ser Gly Arg Pro Gly Ala Phe Tyr Ser Arg Glu Ile Thr Gly Lys
            20                  25                  30
Phe Gly Lys Pro Val Pro Asp Asp Pro Asn Glu Val Glu Ile Val Asn
        35                  40                  45
Ala Asn Phe Ser Leu Ala Tyr Gly Gly Met Leu Leu Leu Ser His Thr
    50                  55                  60
Asn Leu Arg Leu Leu Lys Gly His Arg Tyr Gly Leu Cys Gly Arg Asn
65                  70                  75                  80
Gly Ala Gly Lys Ser Thr Leu Met Arg Ser Ile Ala Asn Glu Lys Leu
                85                  90                  95
Glu Gly Phe Pro Pro Gln Asp Val Val Arg Thr Cys Phe Val Glu His
            100                 105                 110
Asn Gln Gly Glu Asp Ala Asp Leu Ser Ile Ile Glu Tyr Val Ser Lys
        115                 120                 125
Asp Pro Lys Ile Ala Glu Ala Gly Gln Glu His Ile Ser Arg Ile Leu
    130                 135                 140
Leu Glu Phe Gly Phe Thr Asp Gly Pro Glu Gly Arg Gln Asn Gln Arg
145                 150                 155                 160
Val Gly Ser Leu Ser Gly Gly Trp Lys Met Lys Leu Ala Leu Ala Arg
                165                 170                 175
Ala Met Leu Met Lys Ala Asp Val Leu Leu Leu Asp Glu Pro Thr Asn
            180                 185                 190
His Leu Asp Val Ala Asn Val Lys Trp Leu Gln Glu Tyr Leu Lys Lys
        195                 200                 205
His Thr Asp Ile Thr Ser Leu Ile Val Ser His Asp Ser Gly Phe Leu
    210                 215                 220
Asp Glu Val Cys Thr Asp Ile Tyr His Tyr Glu Gly Lys Lys Leu Val
```

225 230 235 240
His Tyr Lys Gly Asn Leu Ala Ala Phe Val Lys Gln Lys Pro Glu Ala
245 250 255
Lys Ser Tyr Tyr Thr Leu Ser Ser Ser Met Val Gln Phe Lys Phe Pro
260 265 270
Pro Pro Gly Ile Leu Ser Gly Ile Lys Ser Asn Thr Arg Ser Ile Leu
275 280 285
Arg Met Thr Asn Cys Ser Tyr Thr Tyr Pro Gly Ala Ser Lys Pro Ser
290 295 300
Leu Val Asp Ala Ser Leu Ser Leu Ser Leu Ser Ser Arg Val Ala Ile
305 310 315 320
Ile Gly Gly Asn Gly Ala Gly Lys Ser Thr Phe Ile Lys Met Leu Thr
325 330 335
Gly Glu Thr Ile Pro Gln Thr Gly Lys Val Glu Lys His Pro Asn Leu
340 345 350
Arg Ile Gly Tyr Ile Lys Gln His Ala Leu Glu His Val Glu Met His
355 360 365
Leu Glu Lys Thr Pro Ser Gln Tyr Leu Gln Trp Arg Tyr Ala Asn Gly
370 375 380
Asp Asp Arg Glu Val Phe Leu Lys Gln Thr Arg Ile Leu Thr Glu Gln
385 390 395 400
Asp Lys Ala Gln Met Glu Lys Pro Val Asp Leu Gly Asp Gly Arg Gly
405 410 415
Pro Arg Arg Ile Glu Ala Ile Met Gly Arg Gln Lys Trp Lys Lys Thr
420 425 430
Phe Gln Tyr Glu Val Lys Trp Val Gly Leu Leu Pro Lys His Asn Thr
435 440 445
Met Ile Ser Arg Glu Thr Leu Val Glu Leu Gly Phe Phe Lys Leu Val
450 455 460
Gln Glu Phe Asp Asp His Glu Ser Ser Arg Glu Gly Leu Gly Phe Arg
465 470 475 480
Val Leu Glu Pro Lys Ala Ile Ser Lys His Phe Glu Asp Ile Gly Leu
485 490 495
Asp Pro Glu Ile Ala Asn His Asn Gln Ile Ser Gly Leu Ser Gly Gly
500 505 510
Gln Lys Val Lys Val Val Leu Ala Gly Ala Met Trp Asn Asn Pro His
515 520 525
Leu Leu Val Leu Asp Glu Pro Thr Asn Phe Leu Asp Arg Asp Ser Leu
530 535 540
Gly Gly Leu Ala Val Ala Ile Arg Asp Phe Lys Gly Gly Val Val Met
545 550 555 560
Ile Ser His Asn Glu Glu Phe Val Gly Ala Leu Cys Pro Glu Gln Leu
565 570 575
His Ile Ala Asp Gly Arg Ile Val Ala Arg Thr Asn Thr Ala Val Ala
580 585 590
Leu Asp Arg Phe Glu Asp Ser Ala Ala Ser Ser Pro Gln Pro Gly Ser
595 600 605
Thr Val Ala Asn Ser Ala Ala Thr Ser Ala Ala Pro Ser Ala Val Asn
610 615 620
Ser Gly Ala Glu Asp Gln Gly Glu Leu Lys Phe Lys Ala Arg Lys Lys
625 630 635 640
Lys Lys Met Thr Arg Ala Gln Leu Lys Glu Arg Glu Ala Arg Arg Arg
645 650 655
Leu Arg His Leu Glu Trp Tyr Ala Pro Pro Tyr Leu Val Thr Phe Asp
660 665 670
Phe Leu Gln Thr Ala Asn Ser Pro

675 680

<210> 36636
<211> 128
<212> PRT
<213> A.fumigatus

<400> 36636
Pro Met Val Pro Ser Asp Ser Trp Phe Pro Ser Pro Lys Gly Gly Thr
1 5 10 15
Leu Lys His Trp Glu Glu Ser Tyr Lys Lys Ala Gln Ser Leu Val Arg
20 25 30
Asn Met Thr Leu Val Glu Lys Val Asn Ile Thr Thr Gly Ile Gly Trp
35 40 45
Gln Met Gly Leu Cys Val Gly Asn Thr Gly Thr Leu Val Asp Cys Asp
50 55 60
Tyr Gly Phe Ile Leu Ile Asp Gln Ala Arg Arg Ile Leu Leu Asn Ser
65 70 75 80
Pro Pro Cys Val Tyr Arg Thr Val Leu Lys Asp Tyr Asp Leu Arg Thr
85 90 95
Met Cys Leu Pro Phe Arg Arg Val Leu Gln Arg Gly Leu Arg Gly Ile
100 105 110
Glu Ser Ser Cys Ala Ser Val Ala Ser Leu Trp Gly Glu Arg Leu Gly
115 120 125

<210> 36637
<211> 115
<212> PRT
<213> A.fumigatus

<400> 36637
Met Ser Arg Asn Ile Ser Gly Ser Pro Leu Ser Gly Gly Phe Arg Pro
1 5 10 15
Leu Tyr Arg Pro Thr Trp Ala Thr Val Pro Cys Thr Lys Ser Leu His
20 25 30
Gly Arg Leu Pro Arg Val Phe Glu Pro Thr Trp Leu Thr Val Met Cys
35 40 45
Ser Tyr Gln Met Val Asn Asn Ser Gln Pro Cys Glu Asn Asn Lys Leu
50 55 60
Leu Asn Gly Ile Leu Gln Asp Glu Leu Gly Val Ser Arg Ile Arg Ala
65 70 75 80
Leu Pro Thr Gly Leu Gly Pro Pro Val Trp Ala Ser Thr Ala Pro Leu
85 90 95
Gly Gly Leu Leu Leu Glu Pro Cys Pro Gly Val Arg Ser Ala Phe Gly
100 105 110
Leu Glu Arg
115

<210> 36638
<211> 63
<212> PRT
<213> A.fumigatus

<400> 36638
Asn Leu His Ser Phe Val Ser Thr Thr Ile Val Ser Val Pro Cys Thr
1 5 10 15

```
Phe Cys Asp Ser Asn Ser Asp Ser Asn Arg Glu Glu Tyr Met Gly Tyr
            20                  25                  30
Ile Trp Val Leu Asn Lys Ser Tyr Met Gly Leu Pro Ser Leu Ala Phe
        35                  40                  45
Thr Tyr Tyr Ser Val Val Cys Arg Leu Asp Cys Ile Asp Ser His
    50                  55                  60
```

<210> 36639
<211> 74
<212> PRT
<213> A.fumigatus

<400> 36639

```
Tyr Val Arg Ile Val Pro Phe Ile Val Ser Lys Met Thr Gln Val Asp
1               5                   10                  15
Thr Gly Thr Ala Phe Gly Lys Asp Thr Ile Gly Gly Ser Gln Phe Asp
            20                  25                  30
Thr Leu Ile Gly Gln Pro Phe Leu Glu Asn Val Thr Leu Gln Ser Leu
        35                  40                  45
Lys Arg Met Ile Asp Val Ser Lys Ser Leu Pro Thr Phe Phe Ser Phe
    50                  55                  60
Val Val Thr Gly Trp Gly Ile Val Tyr Pro
65                  70
```

<210> 36640
<211> 61
<212> PRT
<213> A.fumigatus

<400> 36640

```
Leu Pro Ser Arg Ser Gly Glu Gly Asn Ala Leu Ile Thr Asn Ala Val
1               5                   10                  15
His Tyr Ala Ser Lys His Gly Ile Ile Leu Ser Leu Phe Ile Gly Trp
            20                  25                  30
Arg Gly Pro Arg Pro Ala Lys Leu Pro Leu Arg Leu Ser Asp Phe Ile
        35                  40                  45
Ile Tyr Thr Leu Gly Ser Ser Ala Arg Gly Gly Gln Asn
    50                  55                  60
```

<210> 36641
<211> 529
<212> PRT
<213> A.fumigatus

<400> 36641

```
Pro Ser Glu Asp Ile Thr Leu Ile Thr Pro Pro Ala Ser Gln Ala Pro
1               5                   10                  15
Leu Glu Ala Ala Leu Ser Gln Asn Pro His Leu Thr Ser Leu Pro Ala
            20                  25                  30
Pro Ser Pro Ser Val Leu Ala Pro Ser Gly Leu Thr Leu Thr Thr Gly
        35                  40                  45
Thr Ala Glu Leu Leu Arg Leu Pro Glu Val Gln Ser Cys Ile Lys Ser
    50                  55                  60
Asp Phe Leu Leu Leu Pro Cys Asp Leu Ile Cys Glu Leu Pro Gly Glu
65                  70                  75                  80
Ser Leu Ile Glu Ala Trp Met Val Thr Gln Ser Ala Leu Gly Gly Ser
```

```
                85                  90                  95
Thr Ile Ser Gly Gly Trp Asn Ser Asn Gly Pro Lys Ser Ile Gly Met
            100                 105                 110
Gly Gly Glu Gln Gly Gly Arg Arg Gly Gly Leu Gly Val Tyr Tyr Gln
        115                 120                 125
Thr Arg Gly Arg Glu Glu Ser Val Lys Gly Glu Val Thr Asp Phe Val
    130                 135                 140
Ala Thr Ala Pro Leu Glu Gln Glu Glu Ala Pro Ala Val Ser His Asn
145                 150                 155                 160
Ser Asp Gly Pro Val Ser Ile Arg Tyr Gly Leu Ser Lys Leu Val Leu
                165                 170                 175
Ser Ile Pro Met Asp Thr Leu Lys Glu Gln Met Glu Glu Gln Lys Ala
            180                 185                 190
Leu Leu Ile Arg His Ser Leu Val Lys Lys His Ala Arg Val Lys Met
        195                 200                 205
Leu Thr Thr Tyr Arg Asp Ala His Ile Tyr Val Phe Pro Tyr Trp Val
    210                 215                 220
Lys Glu Met Ala Val Leu Asn Glu Lys Phe Glu Ser Val Gly Glu Asp
225                 230                 235                 240
Leu Val Gly Trp Trp Ala Lys Ala Glu Trp Gln Lys Gly Leu Ala Glu
                245                 250                 255
Lys Leu Arg Leu Arg Glu Ile Phe Glu Pro Glu Gly His Lys Ala Thr
            260                 265                 270
Glu Ser Gly Ser Leu Asp Gly Glu His Ile Glu Glu Glu Ile Asp Leu
        275                 280                 285
Lys Ala Met Ser Thr Thr Lys Ala Gly Ala Gly Thr Ser Arg Asp Ala
    290                 295                 300
Leu Ser Asp Asp Pro Ser Glu Ala Val Gln Phe Ala Ser Arg Val Lys
305                 310                 315                 320
Arg Ser Gly Thr Asp Leu Ser Thr Ala Pro Pro Glu Pro Ser Lys Gly
                325                 330                 335
Lys Leu Thr Val Pro Pro Leu Leu Ala Tyr Val His Ser Ser Leu Pro
            340                 345                 350
Ser Ala Pro Leu Val Arg Arg Val Asp Thr Ser Ala Leu Leu Leu Ser
        355                 360                 365
Val Ser Leu Arg Leu Ala Lys Leu Glu Ser Ile Glu Glu Val Gly Arg
    370                 375                 380
Thr Ala Ala Ser Pro Phe Ala His Ser Gln Lys Val Ala Tyr Pro Ala
385                 390                 395                 400
Gly Val Ala Gln Arg Cys Thr Val Thr Lys Ala Asp Cys Leu Leu Ala
                405                 410                 415
Asp Asn Val Thr Val Glu Glu Lys Cys Val Ile Lys Glu Ser Val Ile
            420                 425                 430
Gly Ala Asn Cys His Ile Ala Ser Gly Ala Arg Leu Thr Arg Cys Leu
        435                 440                 445
Ile Met Asp Gly Ala Val Ile Gly Glu Arg Cys Gln Leu Thr Gly Cys
    450                 455                 460
Ile Val Gly Arg Arg Ser Gln Ile Gly Arg Glu Ser Val Leu Lys Asp
465                 470                 475                 480
Cys Glu Ile Gln Asp Gly Asn Ile Val Pro Glu Glu Thr Asp Ala Lys
                485                 490                 495
Asn Glu Lys Phe Met Val Phe Glu Gly Leu Asp Asp Glu Asp Gly Glu
            500                 505                 510
Gly Met Glu Val Ser Glu Glu Phe Asp Asp Ser Asn Asp Glu Leu Gly
        515                 520                 525
Phe
```

<210> 36642
<211> 67
<212> PRT
<213> A.fumigatus

<400> 36642
Ser Gln His Phe Val Met Pro His Ser Ile Pro Val Pro Pro Thr Gly
1 5 10 15
Phe Gln Ala Leu Ile Leu Cys Gly Pro Gly Val Ser Leu Asn Thr Phe
20 25 30
Thr Ser Asn Pro Glu Glu Phe Pro Lys Ala Leu Leu Pro Ile Ala Asn
35 40 45
Arg Pro Met Val Trp Tyr Pro Leu Asp Trp Cys Tyr Arg Met Gly Ile
50 55 60
Thr Ser Glu
65

<210> 36643
<211> 235
<212> PRT
<213> A.fumigatus

<400> 36643
Thr Pro Tyr Arg Arg Arg Asp Arg Thr Gly Gly Lys Ile Leu Asp Arg
1 5 10 15
Asn Pro Arg Lys Gly Lys Ser Pro Ser Pro Gln Lys Leu Pro Thr Lys
20 25 30
Lys Ser Gly Gly Val Gly Ile Ile Gly Gly Lys Lys Gln Ile Lys Gln
35 40 45
Lys Phe Gln Thr His Pro Pro Pro Cys Pro Pro Arg Asp Phe Ala Ser
50 55 60
His Glu His Lys Ala Thr Asp Ser Gly Thr Asp Arg Asp Thr Gln Pro
65 70 75 80
Leu Gln Tyr His His Arg Pro Pro Ala Ala Leu Lys Pro Ser Ala Ser
85 90 95
Val Thr Thr Ala Ser Lys Pro Arg Gly Leu Gly Val Ile Gly Gly Lys
100 105 110
Lys Lys Glu Gln Ser Pro Gln Gln Ile Pro Gln Pro Ser Leu Ser Pro
115 120 125
Glu Ala Gln Glu Val Leu Thr Ser Glu Pro Lys Gln Lys His Gly Gly
130 135 140
Lys Leu Gly Met Ile Gly Asp Lys Ala Arg Lys Thr Thr Glu Val Phe
145 150 155 160
Pro Ala Ala Ser Pro Lys Asn Arg Ala Glu Thr Thr Thr Ser Pro Pro
165 170 175
Pro Ala Lys Ser Glu Ser Gly Glu Val Ser Arg Arg Gly Ala Val Lys
180 185 190
Arg Ser Ser Ser Pro Val Lys Pro Pro Pro Gln Glu Thr Glu Gln Glu
195 200 205
Arg Ala Asp Arg Lys Arg Glu Glu Leu Lys Arg Gln Leu Glu Ala Lys
210 215 220
Ser Arg Ala Pro Ala Lys Lys Lys Arg Arg Phe
225 230 235

<210> 36644
<211> 749
<212> PRT
<213> A.fumigatus

<400> 36644

```
Ala Gln Thr Trp Gly Ile Val Lys Phe Ala Val Ile Gln Glu Leu Glu
1               5                  10                  15
Ser Gly Ala Arg Ala Gln Glu Gln Ala Pro Glu Arg Gly Ser Arg Asn
            20                  25                  30
Val Lys Lys Lys Leu Ser Lys Glu Gly Gln His Ala Glu Arg Pro Pro
        35                  40                  45
Ala Trp Glu Asp Gly Arg Thr Asp Arg Leu Arg Asn Arg Leu Phe Arg
    50                  55                  60
Gly Val Met Glu Thr Asp Ala Ser Lys His Ser Thr Thr Glu Ile Glu
65                  70                  75                  80
Ser Thr Ser Asn Ile Thr Thr Pro Leu Ala Arg Pro Leu Pro Asp Ser
                85                  90                  95
Pro Val Glu Ser Leu His Ser Pro His Ser Gln Met Thr Ser Val Asn
            100                 105                 110
Asp Asp Ala Ala Asp Ile Glu Pro Leu Pro Pro Ser Val Leu Ser Ser
        115                 120                 125
Asn Gln Gly Thr Met Asn Thr Met Asn Ser Asn Gly Trp Ser Ser Met
    130                 135                 140
Ser Asp Val Glu Pro His Ser Ile Pro Gln Phe Glu Lys Arg His Ser
145                 150                 155                 160
Asp Ala Gly Glu Ser Ser Leu Ser Ser Phe Glu Asn Pro Pro Arg Asp
                165                 170                 175
Leu Ala Gly Thr Ser Ala Ile Gln Ser Pro Glu Ser Asp Gln Arg Ser
            180                 185                 190
Ala Pro Arg Ala Ile Asn Arg Gln Ala Asp Trp Arg Leu Arg Asn His
        195                 200                 205
Pro Asp Tyr Val Lys Gly Ala Ser Glu Asp Glu Phe Asp Gln Lys Met
    210                 215                 220
Glu Asp Lys Arg Ala Ala Ile Arg Asp Tyr Lys Leu Phe Pro Lys Lys
225                 230                 235                 240
Val Leu Ser Leu Glu Ser His Ile Glu Pro Pro Arg Pro Pro Pro Phe
                245                 250                 255
His Arg His Glu Ser Ser Glu Ser Phe Pro Met Phe Ser Glu Ser Thr
            260                 265                 270
Gly Ser Ser His Pro Ser Lys Ser Leu Ala Thr Ser Phe Ser Ser Ala
        275                 280                 285
Ala Arg Leu Tyr Asp Ser Ser Lys Ile Ala Glu Ala Asp Glu Ser Val
    290                 295                 300
Ile Glu Asp Tyr Pro Arg Glu His Glu Asn Leu Glu Leu Ala His Thr
305                 310                 315                 320
Pro Val Leu Asn Glu Gln Ala Val Gln Asp Asp Gly Leu Phe Gln Glu
                325                 330                 335
Ser Val Ile Asp Ala Ser Arg Val His Leu Glu Arg Pro Ser Ser Pro
            340                 345                 350
Pro Gln Leu Leu Thr Glu Ser Ser Pro Leu Gln Ile Pro Lys Asp Ser
        355                 360                 365
Ser Thr Ser Ala Lys Asn Ala Pro Asp Leu Arg Ser Val Pro Glu Ser
    370                 375                 380
Thr Glu Asp Leu Ser Asp Ile Val Ile Pro Leu Ser Pro Asn Leu Ser
385                 390                 395                 400
```

```
Gly Asn Lys Pro Trp Ser Pro Glu Met Leu Leu Lys Glu Ala Ile Arg
                405                 410                 415
Tyr Asn His Ser Ser Thr His Val Asp Ile Gln Ser Ala Ala His Leu
            420                 425                 430
Leu Gln Lys Leu Cys Ile Leu Phe Gly Glu Cys Glu Lys Leu Leu Pro
        435                 440                 445
Arg Glu Glu Cys Glu Leu Ile Phe Lys Thr Tyr His Glu His Leu Val
    450                 455                 460
Arg Gln Ser Met Tyr Leu Glu Ala Ala Glu Leu Arg Leu Leu Cys Val
465                 470                 475                 480
Pro Ser Tyr Pro Ala Val Tyr Glu Tyr Ala Gln Thr Asn Thr Phe Ile
                485                 490                 495
Asn Val Phe Cys Phe Thr Cys Lys Arg Pro Tyr Glu Asn Pro Lys Gln
            500                 505                 510
Asp Asn Arg Ser Cys Tyr Gln Cys Asn Thr Pro Gln Glu Pro Cys Ala
        515                 520                 525
Ile Cys Met Ser Val Asp Pro Pro Ala Asp Trp Ile Thr Glu Gln Ile
    530                 535                 540
Ser Ser Phe Ala Asp Thr Glu Glu His Ser Glu Ala Thr Ser His Leu
545                 550                 555                 560
Leu Ser Ser Ser Arg Ser Ser Leu Lys Thr Glu Gln Ile Pro Leu Ser
                565                 570                 575
Glu Leu Gln Arg Leu Asp Gly Ala Leu Leu Gly Asp Tyr Thr Ala Pro
            580                 585                 590
Arg Pro Met Gly Ser Thr Leu Trp Thr Trp Cys Gln Gly Cys Gly His
        595                 600                 605
Gly Gly His Met Ala Cys Ile Thr Thr Trp Leu Ser Asp Pro Ser Leu
    610                 615                 620
Ser Glu Gly Gly Cys Ala Thr Pro Gly Cys Met His Asp Cys Gly Pro
625                 630                 635                 640
Gly Pro Arg Arg Glu Phe Asn Arg Ala Val Leu Gln Asp Val Ser Arg
                645                 650                 655
Lys Arg Asp Ala Ala Ser Arg Lys Ala Gly Leu Gly Phe Val Lys Arg
            660                 665                 670
Asp Pro Trp Ala Lys Gly Glu Ser Lys Ala Val Glu Lys Val Arg Gly
        675                 680                 685
Met Leu Gly Val Ala Thr Ser Gly Gly Ser Thr Val Ala Pro Val Ser
    690                 695                 700
Ala Asn Ile Gly Ala Ala Ser Ser Ser Gly Thr Met Ser Pro Lys Lys
705                 710                 715                 720
Val Arg Leu Val Thr Pro Ile Glu Gln Gly Lys Arg Arg Ser Gly Pro
                725                 730                 735
Ser Arg Ala Ser Thr Gly Gly Ser Ser Gly Ile Asn Ile
            740                 745
```

<210> 36645
<211> 281
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (268)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36645

```
Ser Leu Val Leu Gln Leu Pro Ser Asn Cys Phe Tyr Ser Thr Met Ala
1               5                  10                  15
Thr Pro Ile Leu Ile Ser Tyr Asn Pro Thr Ser Ala Ser Ser Gly Leu
            20                  25                  30
Ser Leu Ser Gln Ile Ala Tyr Phe Gly Arg Val Leu Ile Lys Val Ser
        35                  40                  45
Ser Leu Ser Gln Ala Glu Glu Phe Leu Arg Gln Asn Phe Arg Leu Leu
    50                  55                  60
Asp Val Tyr Val Asp Ala Thr Asp Ile Thr Ser Ser Gly Asp Ile Val
65                  70                  75                  80
Asp Ile Leu Asn Ala Gly Ala Ala Lys Ala Phe Ile Ser Leu Asp Gln
                85                  90                  95
Leu Thr Ser Leu Ser Gln Glu Gln Ser Val Pro Ser Ser Arg Leu Val
            100                 105                 110
Val Tyr Thr Ser Ser Asp Ser Gln Val Asp Ala Phe Gln Ser Trp Val
        115                 120                 125
Gly Glu Asp Ala Glu Arg Lys Glu Ala Gly Ile Cys Thr Glu Ser Ala
    130                 135                 140
Asp Val Lys Thr Val Ala Asp Arg Leu Gly Leu Asn Leu Glu Ala Gln
145                 150                 155                 160
Asn Leu Tyr Arg Thr Tyr Thr Thr Ser Thr Val Thr Glu Asp Ala Val
                165                 170                 175
Lys Glu Thr Leu Lys Gln Gly Ala Val Ser Ile Val Ser Ala Asp Ala
            180                 185                 190
Leu Thr Leu Asp His Lys Asn Pro Ser Gly Lys Ile Ala Ala Ala Ala
        195                 200                 205
Leu Val Ala Ala Arg Ala Val Ala Asp Gln Ser Asn Gly Leu Tyr Ala
    210                 215                 220
Thr Ser Val Thr Asp Glu Arg Gly Val Cys Leu Gly Leu Val Trp Ser
225                 230                 235                 240
Ser Asp Glu Ser Ile Ala Glu Ala Leu Arg Thr Gly Thr Gly Val Tyr
                245                 250                 255
Gln Ser Arg Lys Arg Val Phe Thr Gly Gly Cys Xaa Gly Asp Gln Phe
            260                 265                 270
Leu Ile Gln Ile Trp Ala Gly Ile Ser
        275                 280
```

<210> 36646
<211> 92
<212> PRT
<213> A.fumigatus

<400> 36646

```
Gly Gly Pro Arg Leu Leu Arg Ala Tyr Leu Ser Leu Val Ser Gly Phe
1               5                  10                  15
Cys Ile Leu Ser Leu Val Gly Ile Met His Leu Pro Ser Leu Ser Val
            20                  25                  30
Ala Leu Ala Leu Val Ser Ser Ser Leu Ala Leu Pro Gln Ala Val Leu
        35                  40                  45
Pro Glu Asn Asp Val Ser Ser Arg Ala Ala Ala Val Lys Glu Ala Phe
    50                  55                  60
Ser His Ala Trp Asp Gly Tyr Met Lys Tyr Ala Phe Pro His Asp Glu
65                  70                  75                  80
Leu Leu Pro Val Ser Asn Ser Tyr Gly Asp Ser Arg
                85                  90
```

<210> 36647
<211> 190
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (128)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36647
Pro Gly Asp Leu Cys Arg Asn Gly Trp Gly Ala Ser Ala Val Asp Ala
1 5 10 15
Leu Ser Thr Ala Ile Val Met Arg Asn Ala Thr Ile Val Ser Gln Ile
20 25 30
Leu Asp His Ile Ala Lys Ile Asp Tyr Ser Lys Thr Ser Asp Met Val
35 40 45
Ser Leu Phe Glu Thr Thr Ile Arg Tyr Leu Gly Gly Met Leu Ser Gly
50 55 60
Tyr Asp Leu Leu Lys Gly Pro Ala Ala Asp Leu Val Glu Asp Arg Thr
65 70 75 80
Lys Val Asp Met Leu Leu Gln Gln Ser Lys Asn Leu Gly Asp Val Leu
85 90 95
Lys Phe Ala Phe Asp Thr Pro Ser Gly Val Pro Tyr Asn Asn Ile Asn
100 105 110
Ile Thr Ser Asp Gly Asn Asp Gly Ala Thr Thr Asn Val Leu Ala Xaa
115 120 125
Thr Val Thr Leu Val Leu Glu Cys Thr Arg Leu Ser Asp Leu Thr Gly
130 135 140
Asp Gln Glu Tyr Ala Lys Leu Ser Gln Arg Ala Glu Ser Tyr Leu Leu
145 150 155 160
Ala Pro Gln Ala Ser Ser Gly Glu Pro Phe Pro Cys Leu Val Arg Ser
165 170 175
Ala Asn Asn Phe Gln Thr Gly Gln Phe Thr His Gly Phe Arg
180 185 190

<210> 36648
<211> 179
<212> PRT
<213> A.fumigatus

<400> 36648
Tyr Ser Leu Arg Ala Glu Leu Lys Pro Tyr Gln Leu Val Gly Leu Ser
1 5 10 15
Phe Leu Val Tyr Leu Cys Arg Asn Gly Val Gly Gly Ile Leu Ala Asp
20 25 30
Glu Met Gly Leu Gly Lys Thr Leu Gln Thr Leu Ser Leu Phe Gln Phe
35 40 45
Leu Lys Glu Arg Asp Gly Gly Tyr Ser Asn Arg Asn Ser Pro Phe Leu
50 55 60
Val Val Cys Pro Leu Ser Ile Gln Glu Lys Trp Leu Arg Glu Ile Glu
65 70 75 80
Lys Trp Ala Pro Ser Leu Arg Ala Val Lys Tyr His Gly Thr Phe Glu
85 90 95
Gln Arg Asp Asn Val Lys Lys Met Val Ser Ala Gln Lys Lys Pro Ser
100 105 110

```
Ile Leu Arg Val Pro Thr Asp Ile Val Asp Ile Val Ile Thr Thr Tyr
        115                 120                 125
Glu Thr Leu Ile Ser Glu Ile Asn Trp Phe Ser Arg Val Phe Val Trp
    130                 135                 140
Arg Gly Val Val Leu Asp Glu Gly His Arg Ile Lys Asn Ser Arg Ser
145                 150                 155                 160
Lys Arg Ser Leu Val Leu Asn Arg Ile Lys Ala Glu Met Lys Leu Val
                165                 170                 175
Leu Ser Gly
```

<210> 36649
<211> 379
<212> PRT
<213> A.fumigatus

<400> 36649

```
Glu Lys Ser Val Leu Met Phe Pro Ser His Leu Arg Ile Thr Asp Ile
1               5                   10                  15
Arg Gln Cys Cys Ile His Pro Tyr Leu Phe Ala Asp Ala Ile Pro Ser
            20                  25                  30
Pro Tyr Glu Leu Gly Glu His Leu Ile His Gln Ser Gly Lys Phe Leu
        35                  40                  45
Val Leu Lys Lys Leu Leu Gln Tyr Tyr Val Thr Thr Glu Thr Lys Val
    50                  55                  60
Ile Val Phe Ser Asn Phe Asp Gln Cys Leu Asn Leu Cys Glu Asp Leu
65                  70                  75                  80
Val Met Met Leu Gln Gly Ser Asn Arg Ala Phe Glu Tyr Ala Arg Leu
                85                  90                  95
Asp Gly Arg Thr Thr Gly Pro Trp Arg Lys Val Met Val His Leu Phe
            100                 105                 110
Gln Asn Asp Pro Arg Tyr Lys Val Phe Leu Val Ser Ile Arg Ala Gly
        115                 120                 125
Gly Glu Gly Leu Asn Leu Thr Ser Ser Ser Val Val Val Phe Leu Asp
    130                 135                 140
Glu Asp Trp Asn Pro Gln Val Met Arg Gln Ala Glu Ala Arg Val His
145                 150                 155                 160
Arg Ile Gly Gln Thr Arg Pro Val Val Ile Tyr Lys Leu Arg Ser Ala
                165                 170                 175
Gly Thr Val Glu Glu Gln Met Ser Arg Arg Leu Val Lys Lys Ala Tyr
            180                 185                 190
Val Ala Asp Arg Val Thr Glu Asn Ile Pro Ala His Cys Pro Gly Asn
        195                 200                 205
Asp Tyr Leu Glu Met Leu Lys Ala Glu Glu Ala Ser Met Ser Gln Asn
    210                 215                 220
Ser Thr Asp Thr Phe Gly Leu Pro Ser Pro Val Phe Met Asp Gln Thr
225                 230                 235                 240
Phe Leu Ser Gln Gln Gln Ile Asp Thr Asn Glu Leu Ser Gln Trp Asp
                245                 250                 255
Met Ser Thr Ile Leu Ala Lys Cys Ser Ser Thr Gln Lys Asp Gly Gly
            260                 265                 270
Leu Ser Pro Cys Leu Thr Val Glu Gln Glu Gln Leu Trp Leu Glu Lys
        275                 280                 285
Ala Asp Arg Val Arg Thr Asn Phe Phe Asn Gly Val Thr Ile Asp Thr
    290                 295                 300
Ser Gly Arg His His Thr Val Tyr Ala Glu Glu Glu Ser Ser Asn Leu
```

```
305                 310                 315                 320
Leu Arg Ser Asn Arg Arg Ile Gly Lys Glu Arg Thr Val Met Ile Asp
                325                 330                 335
Gly Tyr Ala Val Ser Lys Glu Ser Leu Arg Ala Ser Gly Glu Glu Pro
            340                 345                 350
Thr Ser Thr Asn Glu Cys Ala Ser Pro Thr Asn Lys Phe Thr Arg Leu
        355                 360                 365
His His Gly Ala Gly Arg Ser Arg Ser Val Gly
    370                 375
```

<210> 36650
<211> 166
<212> PRT
<213> A.fumigatus

<400> 36650

```
Ala Leu Val Ala Ile Arg Thr Cys Phe Pro Ile Asn Arg Ser Ala Cys
1               5                   10                  15
Val Cys Ile Ser Ser Arg Met Thr Asn Ser Pro Ala Met Thr Arg Ile
            20                  25                  30
Pro Arg His Leu Gly Glu Gln Ala Glu Ser Arg Lys Arg Arg Thr Gly
        35                  40                  45
Lys Arg Asn Glu Thr Asn Val Leu Val Leu Gly Asp Gly Gly Pro Gly
    50                  55                  60
Ser Gly Val Gly Gly Arg Ser Ser Arg Arg Gly Arg Gly Ala Ser Gly
65                  70                  75                  80
Arg Ser Gly Arg Ser Gly Arg Arg Gly Arg Ser Ser Arg Ser Gly Cys
                85                  90                  95
Ser Gly Ser Gly Leu Gly Gly Ile Arg Leu Gly Gly Arg Thr Arg Ser
            100                 105                 110
Gly Cys Arg Gly Phe Arg Gly Arg Ala Ser Gly Arg Leu Ser Cys Val
        115                 120                 125
Gly Ala Ala Gly Arg Leu Arg His Val Gly His Thr Gly Gly Phe Thr
    130                 135                 140
Tyr Pro Val Arg Lys Leu Asp Gly Gly Cys Gly Lys Glu Trp Val Ser
145                 150                 155                 160
Ile Phe Cys Arg Val Ser
                165
```

<210> 36651
<211> 189
<212> PRT
<213> A.fumigatus

<400> 36651

```
Gln Leu Arg Gln Glu Arg Gly Lys Arg Met Ala Leu Ser Asn Val Ala
1               5                   10                  15
Val Phe Gly Ala Ala Phe Leu Thr Pro Val Leu Ala Gly Lys Ile Thr
            20                  25                  30
His Ser Leu Ser Trp Gln Trp Thr Phe Tyr Leu Val Ala Ile Phe Thr
        35                  40                  45
Ala Ala Cys Leu Pro Leu Thr Phe Phe Leu Ile Pro Glu Thr Ala Phe
    50                  55                  60
Arg Arg Ala Asp His Phe Asn Thr Asp Phe Glu His Val Gly Asp Arg
65                  70                  75                  80
Leu Asp Gly Ser His Ser His Thr Gln Leu Gln Pro Ala Gly Tyr Ala
```

```
                85                  90                  95
Thr Ser Glu Leu Ser Gln Ile Ser Gly Glu Gln Lys Gln Ser Val Leu
            100                 105                 110
Gly Thr Asn Glu Lys Pro Gln Gly Glu Pro Ser Arg Arg Glu Asp Gly
        115                 120                 125
Val Ser Gln Glu Pro Thr Leu Pro Arg Lys Ala Thr Tyr Trp Glu Thr
    130                 135                 140
Leu Lys Leu Phe Asn Gly Arg Lys Thr Asp Glu Asp Phe Phe Thr Leu
145                 150                 155                 160
Leu Leu Arg Pro Phe Pro Leu Phe Phe His Pro Gly Ile Leu Trp Val
                165                 170                 175
Asn Pro Pro Ser His Ser Phe Ile Tyr Glu Ala Tyr Val
            180                 185
```

<210> 36652
<211> 95
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (52),(91)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36652

```
Leu Pro Gln Ala Cys Leu Ile Gln Gly Val Leu Ile Gly Trp Thr Val
1               5                   10                  15
Phe Ile Gly Val Val Leu Ala Ala Ile Phe Leu Gly Pro Pro Leu Trp
            20                  25                  30
Phe Asn Glu Val Gln Thr Gly Tyr Leu Tyr Thr Gly Ala Phe Ile Gly
        35                  40                  45
Ser Ile Leu Xaa Leu Ile Leu Ser Gly Ile Leu Ser Asp Ser Leu Asn
    50                  55                  60
Lys Val Met Ile Lys Leu Gln Gln Arg Gln Tyr Asn Pro Glu Phe Arg
65                  70                  75                  80
Ile Leu Leu Val Ile Phe Gln Leu Ile Phe Xaa Gly Thr Gly Leu
                85                  90                  95
```

<210> 36653
<211> 103
<212> PRT
<213> A.fumigatus

<400> 36653

```
His Thr Phe Arg Pro Ser Leu Pro Ile Ser Met Gly Leu Gly Val Leu
1               5                   10                  15
Glu Asp Lys Val Leu Asp His Val Pro Gly Lys Phe His Cys Leu Val
            20                  25                  30
Tyr Ile Phe Thr Gly Arg Leu Val Gln Ser Lys Ser Pro Phe Leu Asn
        35                  40                  45
Ile Trp Leu Gly Thr Ser Tyr Ile Leu Glu Asp Glu Arg Asp Asp Asn
    50                  55                  60
Thr Ala Leu Asp Ser Arg Leu Lys Tyr Asp Arg Ser Gly Asp Val Pro
65                  70                  75                  80
Ile Leu Leu Val Pro Gln Pro Ser Asp Asp Pro Asn Asp Pro Leu Val
                85                  90                  95
```

Gly Arg Arg Ser Tyr Gly Trp
100

<210> 36654
<211> 185
<212> PRT
<213> A.fumigatus

<400> 36654
Asn Trp Pro Val Trp Trp Arg Asp Leu Ile Leu Phe Ala Leu Cys Phe
1 5 10 15
Val Ser Val Leu Cys Ala Thr Thr Ser Ser Leu Met Ala Ala Asn Thr
20 25 30
Val Thr Ile Ala Leu His Tyr Gly Lys Ser Phe Thr Ser Val Ala Leu
35 40 45
Leu Thr Gly Tyr His Leu Cys Gly Val Gly Val Ala Gly Val Leu Ile
50 55 60
Val Pro Thr Ala Arg Val Trp Gly Lys Arg His Leu Phe Ile Leu Gly
65 70 75 80
Asn Ile Leu Met Val Val Ser Cys Ala Trp Ala Gly Gly Ser Gly Gln
85 90 95
Asn Tyr Gln Ser Leu Leu Trp Ala Arg Ile Ile Gln Gly Val Ala Leu
100 105 110
Ala Pro Phe Glu Ala Leu Thr Asn Ala Cys Val Gly Asp Leu Phe Phe
115 120 125
Val His Val Gly Ser Ile Cys Ala Thr Ser Arg Ile Ser Ser Asp Asn
130 135 140
Tyr Ala Arg Asn Gly Ala Ser Gly Trp Pro Tyr Arg Met Leu Pro Cys
145 150 155 160
Ser Ala Leu Pro Ser Ser His Arg Phe Trp Leu Ala Arg Ser His Thr
165 170 175
Arg Leu Val Gly Asn Gly Arg Phe Thr
180 185

<210> 36655
<211> 179
<212> PRT
<213> A.fumigatus

<400> 36655
Ser Ala Ser Ala Pro Ile Arg Pro Ser Phe Leu Val Phe Pro Ala Ala
1 5 10 15
Phe Ser Asn His Ala Val Arg Thr Ser Ser Arg Val Ser Ser Arg Ser
20 25 30
Cys Cys Ser Arg Asn Ser Ala Arg Leu His Met Ala Leu Asp Ser Pro
35 40 45
Leu Arg Tyr Pro Thr Glu Asp Ala His Pro Phe Phe Pro Thr Ala Ala
50 55 60
Val Glu Phe Ala Asn Arg Ile Cys Lys Thr Ala Gly Val Thr Asn Met
65 70 75 80
Pro Gln Ser Pro Ser Cys Ala Asn Thr Thr Gln Ser Ala Thr Gly Thr
85 90 95
Ala Ser Lys Ser Ser Thr Ala Thr Ser Gly Ser Ser Thr Glu Ser Asn
100 105 110
Ala Ser Gln Thr Ala Ala Thr Ala Thr Thr Ser Thr Thr Pro Pro Thr
115 120 125

```
Ser Pro Thr Ser Pro Thr Ser Thr Thr Gly Ser Thr Thr Ser Ser Ala
    130                 135                 140
Ala Ser Thr Thr Asn Thr Thr Thr Gly Ala Ala Val Thr Gln His Lys
145                 150                 155                 160
Asp Ile Gly Leu Ile Ala Leu Ala Gly Ala Ala Leu Ala Ala Phe Gly
                165                 170                 175
Leu Leu Ala
```

<210> 36656
<211> 158
<212> PRT
<213> A.fumigatus

<400> 36656

```
Pro Thr Cys Leu Ser Leu Pro Ala Ala Pro Thr Gln Leu Asn Leu Pro
1               5                   10                  15
Leu Ala Arg Pro Leu Asn Pro Leu Gln Pro Leu Leu Val Leu Pro Pro
            20                  25                  30
Ser Leu Met Pro Pro Arg Pro Leu Pro Leu Gln Pro Leu Leu Leu Leu
        35                  40                  45
Leu Pro Arg Leu Pro Leu Leu Pro Leu Leu Pro Leu Ala Pro Arg Pro
    50                  55                  60
Arg Leu Leu Leu Arg Pro Pro Thr Pro Leu Pro Gly Pro Pro Ser Pro
65                  70                  75                  80
Ser Thr Arg Thr Leu Val Ser Leu Arg Leu Pro Val Arg Arg Leu Arg
                85                  90                  95
Leu Ser Ala Cys Ser Pro Arg Cys Arg Gly Ile Arg Val Met Ala Gly
            100                 105                 110
Leu Phe Val Ile Leu Asp Glu Ile Gln Thr Gln Ala Glu Arg Phe Met
        115                 120                 125
Gly Lys Gln Val Arg Met Ala Thr Ser Ala His Ile Val Thr Gln Cys
    130                 135                 140
Pro Arg Leu His His Gly Ala Gly Arg Ile His Ala Gly Pro
145                 150                 155
```

<210> 36657
<211> 312
<212> PRT
<213> A.fumigatus

<400> 36657

```
Arg Met Thr Lys Pro Ala Phe Leu Glu Leu Pro Ala Gly Ala Gln Leu
1               5                   10                  15
Thr Tyr Leu Ala Glu Gly Gly Ala Asn Ile Ile Tyr Arg Ile Ala Ser
            20                  25                  30
Ala Pro Ser Pro Cys His Thr Gly Pro Thr Asp Thr Tyr Ser Ser Ser
        35                  40                  45
Gly Pro His Phe Ile Val Pro Pro Glu Phe Lys Gly Lys Leu Leu Arg
    50                  55                  60
Leu Arg Lys Glu Thr Lys Thr Gly Ile Ser Tyr Gln Glu Ile Ala Arg
65                  70                  75                  80
Asn Phe Asp Arg Thr Ile Arg Pro Leu Phe Ser Pro Asp Glu Leu Val
                85                  90                  95
Asp Gln Glu Leu Val Tyr Leu Pro Ser Gly Leu Val Gln Arg Cys Asn
            100                 105                 110
```

```
Glu Gln Leu Ser Ala Ala Glu Arg Asn Gly Glu Arg Pro Lys Lys Arg
        115                 120                 125
Gln Gly Val Tyr Leu Ser Val Thr Glu Pro Phe Gly Leu Leu Val Thr
    130                 135                 140
Asp Met Thr Thr Phe Ala Thr Pro Asn Thr Val Leu Ala Glu Leu Lys
145                 150                 155                 160
Pro Lys Trp Leu Leu Gln Ser Pro Ser Ala Pro Val Asn Ala Arg Arg
                165                 170                 175
Cys Arg Thr Cys Ala Leu Arg Asp Met Lys Asn Tyr Gln Ser Arg Arg
            180                 185                 190
Ala Gly Gly Ser Glu Glu Ile Ser Phe Cys Pro Leu Asn Leu Val Ser
        195                 200                 205
Asp Lys Phe Glu Asn Val Leu Arg Ala Ala Lys Tyr Val Lys Gly Cys
    210                 215                 220
Glu Asp Gln Thr Arg Leu Ala Arg Ile Leu Tyr Arg Asn Pro Thr Leu
225                 230                 235                 240
Gln Lys Leu Leu Thr His Gln Lys Ala Met Arg Asp Val Gly Leu His
                245                 250                 255
Gly Pro Ser Ala Gln Ser Arg Glu Gln Ser Leu Ala Met Thr Leu Arg
            260                 265                 270
Asp Cys Thr Met Phe Ile Lys Val Ala His Ser Thr Pro Ser Met Cys
        275                 280                 285
Thr Arg Arg Leu Ala Tyr Ser Ile Arg Phe Arg Val Thr Arg Trp Gly
    290                 295                 300
Gln Trp Lys Ser Ala Leu Glu Thr
305                 310
```

<210> 36658
<211> 73
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (71)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36658

```
Tyr Arg Phe Phe Asp Ile Glu Gly Pro Trp Asp Lys Val His Gln Val
1               5                   10                  15
Ile Gly Gln Ala His Met Leu Leu His Gln Gln Gly Ile Val Arg Ile
            20                  25                  30
Gln Thr Asp Ile Arg Val Gly Ser Arg Phe Val Pro Cys Phe Ser Tyr
        35                  40                  45
Pro Val Asp Leu Trp Trp Cys Gln Leu Thr Arg Phe Ser Val Pro Gly
    50                  55                  60
Leu Asn Arg Asn Asn His Xaa Glu Gly
65                  70
```

<210> 36659
<211> 336
<212> PRT
<213> A.fumigatus

<400> 36659

```
Asn Leu Asp Ser Met Asp Asp His Gln His Gly His Val Pro Tyr Val
```

```
1               5                   10                  15
Leu Leu Leu Leu His Tyr Leu Glu Lys Trp Lys Gln Ala His Asp Gly
            20                  25                  30
Lys Val Arg Ser Asn Tyr Lys Glu Lys Ser Glu Phe Arg Glu Phe Val
        35                  40                  45
Arg Ala Ser Ala Arg Thr Asn Asn Ala Glu Gly Gly Glu Glu Asn Tyr
    50                  55                  60
Asp Glu Ala Val Ala Ala Val Leu Lys Ser Leu Asn Pro Phe Ser Leu
65                  70                  75                  80
Arg Gly Ser Ile Arg Glu Ile Phe Glu Met Asp Gln Cys Lys Asn Leu
                85                  90                  95
Lys Gln Asn Ser Ala Glu Phe Trp Leu Ile Ala Ala Ala Val His Glu
            100                 105                 110
Phe Tyr Gln Thr His Lys Val Leu Pro Leu Pro Gly Ser Leu Pro Asp
        115                 120                 125
Met Lys Ala Gln Ser Ala Asp Tyr Val Ser Leu Gln Asn Ile Tyr Lys
    130                 135                 140
Ser Lys Ala Arg Lys Asp Val Glu Glu Val Thr Ala Thr Val Arg Arg
145                 150                 155                 160
Leu Glu Ala Gln Leu Gly Pro Arg Ala Ala Val Ile Pro Asp Lys Asp
                165                 170                 175
Ile Glu Ile Phe Cys Lys Asn Ala Ala His Ile Lys Val Ile His Gly
            180                 185                 190
Arg Asp Ile Pro Arg Ile Asn Gly Asp Ala Gln Thr Leu Lys Ala Ile
        195                 200                 205
Thr Asp Asn Leu Ser Ser Ser Glu Ala Leu Val Pro Ile Phe Ile Ala
    210                 215                 220
Cys Gln Ile Leu Asp Asp Ile Val Thr Asp Ile Gln Glu Ser Asn Ile
225                 230                 235                 240
Ala Asp Val Ser Leu Asp Asp Glu Ser Leu Trp Asn Thr His Ile Gln
                245                 250                 255
Gln Val Ile Ser Asn Leu Ala Ser Asp Pro Thr Ala Ile Asp Glu Arg
            260                 265                 270
Ala Arg Glu Lys Ile Leu Glu Ala Thr Gln Glu Leu Arg Leu Thr Glu
        275                 280                 285
Gly Gly Glu Leu His Asn Ile Ser Ala Leu Thr Gly Gly Leu Val Ala
    290                 295                 300
His Glu Ala Leu Lys Val Ile Thr Arg Gln Tyr Val Pro Leu Asp Asn
305                 310                 315                 320
Thr Cys Ile Phe Asp Gly Ala Arg Ser Arg Asn Glu Met Tyr Arg Leu
                325                 330                 335
```

<210> 36660
<211> 93
<212> PRT
<213> A.fumigatus

<400> 36660

```
Val His Cys Ala Gln Thr Asn Ser Leu Val Ser Asn Lys Val Ser Ser
1               5                   10                  15
Trp Pro Phe Met Met His Trp Thr Trp Thr Ala Gln Val Phe Leu Thr
            20                  25                  30
Leu His Thr Leu Val Phe Leu Met Lys Met His Ser Tyr Ala Phe Tyr
        35                  40                  45
Asn Gly His Leu Ser Glu Thr Gln Arg Arg Leu Ala Ser Leu Asp Lys
    50                  55                  60
```

```
Pro Gly Leu Val Ser Val Asp Thr Ala Val Arg Tyr Pro Asp Pro Ala
65                  70                  75                  80
Pro Ser Gly His Pro Thr His Gln His Ser Asn His Ala
                85                  90
```

<210> 36661
<211> 79
<212> PRT
<213> A.fumigatus

<400> 36661

```
Leu Glu Ala Gln Leu Ser Lys Lys Lys Val Val Asp Phe His Ser Ser
1               5                  10                  15
Ile Leu Phe Pro Gly Ser Ala Ser Thr Gly Phe Phe Ala Ala Leu Ser
            20                  25                  30
Ser Ser Ser Phe Pro Val Ser Ser Leu Ile Val Ala Thr Pro Ser Ile
        35                  40                  45
Leu Leu Ser Ser Ser Pro Phe Gly Gly Pro Cys Asp Arg His Asp Ile
    50                  55                  60
Pro Tyr Val Phe Ala Leu His Asp Pro Pro His Pro His Pro Phe
65                  70                  75
```

<210> 36662
<211> 102
<212> PRT
<213> A.fumigatus

<400> 36662

```
Phe Gly Ser Pro Val Ser Lys His Gln Thr Pro Ala Pro Leu Asn Phe
1               5                  10                  15
Ser Arg Thr Thr Ser Ser Tyr Met Ile Leu Cys Arg Arg Asn Asn Val
            20                  25                  30
Ala Lys Leu Leu Tyr Leu Phe Thr Leu Gly Glu Arg Thr His Phe Gly
        35                  40                  45
Gln Ile Glu Cys Leu Lys Leu Leu Ala Ser His Arg Phe Ala Asp Lys
    50                  55                  60
Arg Leu Gly Tyr Leu Gly Thr Met Leu Leu Leu Asp Glu Asn Gln Glu
65                  70                  75                  80
Val Leu Thr Leu Val Thr Asn Ser Leu Lys Lys Trp Val Phe Arg Leu
                85                  90                  95
Asn Leu Cys Leu Leu Leu
            100
```

<210> 36663
<211> 481
<212> PRT
<213> A.fumigatus

<400> 36663

```
Glu Val Ser Trp Leu Thr Gly Ser Ser Asp Leu Asn His Ser Asn Gln
1               5                  10                  15
Tyr Ile Val Gly Leu Ala Leu Cys Ala Leu Gly Asn Ile Ala Ser Val
            20                  25                  30
Glu Met Ser Arg Asp Leu Phe Thr Glu Val Glu Ser Leu Leu Ser Thr
        35                  40                  45
Ala Asn Pro Tyr Ile Arg Arg Lys Ala Ala Leu Cys Ala Met Arg Ile
```

```
    50                  55                  60
Cys Arg Lys Val Pro Asp Leu Gln Glu His Phe Leu Glu Lys Ala Lys
65                  70                  75                  80
Ala Leu Leu Ser Asp Arg Asn His Gly Val Leu Leu Cys Gly Leu Thr
                85                  90                  95
Leu Val Ile Asp Met Cys Glu Ala Glu Glu Ala Glu Glu Gly Gln Glu
            100                 105                 110
Gly Val Ile Glu Met Phe Arg Pro Leu Ala Pro Gly Leu Val Arg Ala
        115                 120                 125
Leu Lys Gly Leu Thr Thr Ser Gly Tyr Ala Pro Glu His Asp Val Ser
    130                 135                 140
Gly Ile Thr Asp Pro Phe Leu Gln Val Lys Ile Leu Arg Leu Leu Lys
145                 150                 155                 160
Val Leu Gly Arg Gly Asp Ala Ala Thr Ser Glu Leu Ile Asn Asp Ile
                165                 170                 175
Leu Ala Gln Val Ala Thr Asn Thr Asp Ser Thr Lys Asn Val Gly Asn
            180                 185                 190
Ala Ile Leu Tyr Glu Ala Val Leu Thr Ile Leu Asp Ile Glu Ala Asp
        195                 200                 205
Ser Gly Leu Arg Val Leu Gly Val Asn Ile Leu Gly Lys Phe Leu Ser
    210                 215                 220
Asn Lys Asp Asn Asn Ile Arg Tyr Val Ala Leu Asn Thr Leu Asn Lys
225                 230                 235                 240
Val Val Ala Ile Glu Pro Asn Ala Val Gln Arg His Arg Asn Thr Ile
                245                 250                 255
Leu Glu Cys Leu Arg Asp Pro Asp Ile Ser Ile Arg Arg Arg Ala Leu
            260                 265                 270
Asp Leu Ser Phe Met Leu Ile Asn Glu Ser Asn Val Arg Val Leu Val
        275                 280                 285
Arg Glu Leu Leu Ala Phe Leu Glu Val Ala Asp Asn Glu Phe Lys Pro
    290                 295                 300
Ala Met Thr Thr Gln Ile Gly Ile Ala Ala Asp Arg Tyr Ala Pro Asn
305                 310                 315                 320
Lys Arg Trp His Val Asp Thr Ile Leu Arg Val Leu Lys Leu Ala Gly
                325                 330                 335
Ala Tyr Val Lys Glu Gln Ile Leu Ser Ser Phe Val Arg Leu Ile Ala
            340                 345                 350
Thr Thr Pro Glu Leu Gln Thr Tyr Cys Val Gln Lys Leu Tyr Thr Ser
        355                 360                 365
Leu Lys Glu Asp Ile Ser Gln Glu Gly Leu Thr Leu Ala Ala Thr Trp
    370                 375                 380
Val Ile Gly Glu Tyr Gly Asp Ser Leu Leu Arg Gly Gly Gln Tyr Glu
385                 390                 395                 400
Glu Glu Glu Leu Val Lys Glu Val Lys Glu Ser Asp Ile Val Asp Leu
                405                 410                 415
Phe Asn Asn Ile Leu Asn Ser Thr Tyr Ala Thr Gln Thr Val Val Glu
            420                 425                 430
Tyr Ile Thr Thr Ala Ser Met Lys Leu Thr Val Arg Met Thr Asp Pro
        435                 440                 445
Ala Gln Ile Glu Arg Leu Arg Arg Phe Leu Asn Ser Arg Thr Ala Asp
    450                 455                 460
Leu Ser Val Glu Ile Gln Gln Arg Ala Val Glu Tyr Thr Asn Leu Phe
465                 470                 475                 480
Gly
```

<210> 36664
<211> 107
<212> PRT
<213> A.fumigatus

<400> 36664
Ser Ser Gln Pro Pro Pro Ser Ser Ser Leu Pro Pro Arg Ser Gly Val
1 5 10 15
Leu Ala Thr Ala Met Thr Ser Arg Thr Cys Leu Pro Ser Met Ile Pro
20 25 30
Pro Thr His Thr Pro Phe Glu Leu Ala Thr Glu Ser Leu Ile Asn Pro
35 40 45
Tyr Arg Thr Cys Gly Leu Gly Thr Val Lys Gln Phe Ile Arg Asn Val
50 55 60
Arg Ser Ala Lys Thr Ile Ala Asp Glu Arg Ala Val Ile Gln Lys Glu
65 70 75 80
Ser Ala Ala Ile Arg Ala Ser Phe Arg Glu Glu Ser His Asp Ser Gly
85 90 95
Val Arg Ser Ala Asn Thr Arg His Gln His Leu
100 105

<210> 36665
<211> 65
<212> PRT
<213> A.fumigatus

<400> 36665
Leu Thr Gln Arg Tyr Arg Pro Leu Ser Ser Phe Phe Ile Lys Ser Thr
1 5 10 15
Ser Thr Ala Ala Arg Leu Asp Asn Ser Leu Ile His Pro Phe Leu Ser
20 25 30
Ile Leu Leu Arg Tyr Leu His Arg Ala Ser Ser Ser Ser Tyr Asn Ile
35 40 45
Val Asn Lys Gly Leu Tyr Ser Ser Asp Phe Leu Leu Ser Ser Tyr Ile
50 55 60
Leu
65

<210> 36666
<211> 90
<212> PRT
<213> A.fumigatus

<400> 36666
Asp Gly Gln Asp Gln Pro Thr Phe Gly His Phe Pro Val His Met Val
1 5 10 15
Glu His Ile Ser Glu His Arg Tyr Pro Ala Glu Glu Val Asp Thr Ser
20 25 30
Ser Ser Pro Met Val Phe Pro Trp Asp Arg Met Lys Asp Arg Lys Glu
35 40 45
Glu Thr Glu Gly Asn Arg Ala Thr Gln Arg Tyr Leu Lys Asp Glu Gly
50 55 60
Arg Glu Gly Lys Pro Ala Ser Gly Ala Met Arg Ser Phe Leu His Ile
65 70 75 80
Gly Leu Thr Glu Gly Gly Gly Asn Gly Gln
85 90

<210> 36667
<211> 205
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (187)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36667
Gln Glu Pro Gly Ala Leu Ala Gly Pro Ser Ser Asn Ile Ala Phe Leu
1 5 10 15
Arg His Leu Ser Arg Ala Val Ser His Arg Lys Ile Ser Gln Lys Glu
20 25 30
Ile Asn Thr Pro Leu Ile Asp Gln Thr Ala Tyr Asp Gly Gly Val Val
35 40 45
Ser Ala Thr Arg Pro Pro Ser Pro Leu Ser Gly Cys Thr Pro Thr Ser
50 55 60
Gly Gln Pro Gly Leu Val Thr Asn Leu Ala Leu Pro Ser Ser Glu Glu
65 70 75 80
Thr Leu Gln Leu Ile Arg Arg Tyr Phe Tyr Glu Thr Gly Leu Leu Phe
85 90 95
Pro Tyr Ile His Pro Pro Thr Phe Leu Glu Thr Tyr Asp Glu Phe Lys
100 105 110
Asn Asn Ala Lys Lys Val Arg Arg Thr Trp Leu Gly Leu Leu Ser Ile
115 120 125
Met Leu Ala Met Ala Lys Val Thr Ala Val Ser Gly His Ala Pro Ala
130 135 140
Glu Ser Arg Ile Lys Glu Ser Thr Val Tyr Tyr Arg Gln Ala Leu Asn
145 150 155 160
Leu Cys Arg Gly Glu Met Leu Arg Gly Thr Thr Leu Glu Val Gly Gly
165 170 175
Leu Ile Leu Ser Ser Ala Asp Leu Ser Val Xaa Ser Thr Asp Leu Ser
180 185 190
Cys Ser Ala Val Ser Pro Thr His Gly Pro Ile Ser Pro
195 200 205

<210> 36668
<211> 123
<212> PRT
<213> A.fumigatus

<400> 36668
Ala Arg Phe Arg Arg Tyr Ala Leu Leu Pro Ala His Trp Ala Asn Gly
1 5 10 15
Gly Gly Gly Lys Arg Ser Val Ser Arg Val Leu Gly Gly Ser Ala Glu
20 25 30
Arg Leu Asn Ala Gly Thr Ser Ser Pro Arg Arg Gln Asp Thr Leu Ser
35 40 45
Ala Val Tyr His Val Ile Thr Gly Lys Gly Cys Ser Glu Val Gly Asp
50 55 60
Gln Thr Leu Glu Trp Lys Ala Gly Asp Thr Phe Cys Val Pro Ser Trp
65 70 75 80
His Ala Tyr Gln His Phe Ala Asp Pro Gly Glu Thr Val Tyr Leu Tyr

```
                85                  90                  95
Arg Phe Asp Asp Lys Pro Met Ile Thr Ala Leu Gly Phe Tyr Arg Ser
            100                 105                 110
Ala Glu Asp Asp Ser Glu Glu Leu Ile Ser Asp
        115                 120
```

<210> 36669
<211> 97
<212> PRT
<213> A.fumigatus

<400> 36669

```
Phe Arg Val Arg Leu Gln Leu Ile Glu Glu Trp Ile Asp Ile Ser Met
1               5                   10                  15
Asp His Lys Tyr Ile Pro Ser Gln Ala Thr Arg Ser Ile Leu Ala Met
            20                  25                  30
Pro Leu Gly Tyr Leu Tyr Ile Ser Phe Ile Ile Ile Ile Gly Ile Ile
        35                  40                  45
Ile Thr Ile Phe Ile Tyr Val Ser Val Ser Pro Ser Gly Arg Val Ala
    50                  55                  60
Ala Gly Pro Ala Gly Gly Trp Val Gly Arg Tyr Tyr Leu Ile Ser Thr
65                  70                  75                  80
Arg Ser Met Val Gly Leu Ile Val Pro Leu Pro Pro Gln Ile Tyr Leu
                85                  90                  95
Val
```

<210> 36670
<211> 95
<212> PRT
<213> A.fumigatus

<400> 36670

```
Ile Ala Ser Ser Leu Ser Asn Thr Arg Lys Asp Lys Asp Tyr Ile Cys
1               5                   10                  15
Tyr Gln Val Ile Tyr Tyr Phe Leu Tyr Tyr Pro Asp Leu Ile Pro Tyr
            20                  25                  30
Pro Ser Ile Val Pro Asn Ser Cys Leu Val Asn Arg Leu Ile Tyr Pro
        35                  40                  45
Ala Leu Trp Ile Ile Phe Tyr His Glu Val Pro Phe Pro Gly Lys Lys
    50                  55                  60
Leu His Ile Thr Gln Leu Lys Val Ile Asn Phe Val Arg Ala Arg Pro
65                  70                  75                  80
Phe Gln Ser Glu Ile Ser Ser Ser Glu Ser Ser Ser Ala Asp Arg
                85                  90                  95
```

<210> 36671
<211> 117
<212> PRT
<213> A.fumigatus

<400> 36671

```
Trp Ser Pro Val His Ala Met Thr Thr Val Gln Val Tyr Lys Ala Gly
1               5                   10                  15
Ser Ile Arg Gly Ile Ile Thr Ser Arg Asn Ser Ile Ser Pro Thr Leu
            20                  25                  30
```

```
Val Ser Ile Thr Gly Leu Pro Phe Asp Ala Ser Ser Gly Thr Ser Val
        35                  40                  45
Ala Ala Ser Tyr Met Gln Ile Ala Arg Trp His Gln Cys Tyr Pro Ser
    50                  55                  60
Asn Gln Thr Asn Arg Asn Thr Asp Ala Asp Met Ser Tyr Ser Cys Gly
65                  70                  75                  80
Lys Phe Val Val Ile Glu Leu Val Val Ala Ser Ser Glu Val Val Val
                85                  90                  95
Val Thr Val Lys Ala His Cys Asn Tyr Met Asp Ala Arg His Leu Val
            100                 105                 110
Gly Lys Ser Ala Met
        115
```

<210> 36672
<211> 262
<212> PRT
<213> A.fumigatus

<400> 36672

```
Cys Ser Ser Lys Pro Lys Gly Gly Lys Pro Ala Pro Pro Lys Pro Asp
1               5                   10                  15
Ala Gly Glu Thr Gly Ser Lys Lys Arg Gln Gly Asp Thr Thr Glu Asp
            20                  25                  30
Thr Lys Gln Ser Ser Arg Lys Lys Ile Ala Gly Ser Ser Thr Pro Thr
        35                  40                  45
Glu Ala Asp Asn Gly Ala Thr Ser Thr Ala Ser Asn Leu Lys Ile Leu
    50                  55                  60
Pro Gly Glu Lys Leu Ser Asp Phe Val Ala Arg Val Asp Arg Glu Met
65                  70                  75                  80
Pro Ile Ser Gly Met Lys Arg Ser Gly Lys Pro Ala Pro Ala Asp Leu
                85                  90                  95
Pro Lys Leu Arg Glu Gly Arg Gln Thr Lys His Glu Lys Arg Leu Arg
            100                 105                 110
Arg Leu Gln Glu Gln Trp Arg Lys Glu Glu Ala Glu Ile Leu Glu Arg
        115                 120                 125
Glu Ala Ala Glu Arg Glu Glu Arg Glu Ala Glu Leu Glu Glu Gln Leu
    130                 135                 140
Glu Leu Trp Lys Glu Trp Glu Met Glu Ala Ala Gln Ala Lys Ala Lys
145                 150                 155                 160
Lys Lys Gly Ala Ala Ala Lys Arg Lys Lys Lys Gly Asp Gly Ala Leu
                165                 170                 175
Asp Asp Asp Gly Pro Asp Pro Trp Ala Lys Leu Lys Lys Arg Asp Arg
            180                 185                 190
Met Asn Lys Pro Ala Asn Pro Phe Glu Val Val Gln Ala Pro Pro Gln
        195                 200                 205
Leu Thr Lys Pro Lys Glu Val Phe Lys Val Arg Gly Gly Ala Arg Val
    210                 215                 220
Asp Val Ala Asn Val Pro Ala Ala Val Gly Ser Leu Arg Arg Arg Glu
225                 230                 235                 240
Glu Leu Ala Ser Glu Arg Arg Thr Ile Val Glu Glu Tyr Arg Arg Leu
                245                 250                 255
Met Ala Glu Lys Arg Arg
            260
```

<210> 36673
<211> 60

<212> PRT
<213> A.fumigatus

<400> 36673
Arg Leu Asp Leu Pro Leu Thr Thr Glu Glu Lys Lys Phe Ala Glu Pro
1 5 10 15
Ser Gln Ala Ser Val Ser Ile Asn His Asn His Asn Gln Gln Asn Asn
20 25 30
Asn Pro Pro Cys Leu Thr Ser Ile Arg Glu Glu Lys Met Thr Arg Gly
35 40 45
Ala Tyr Gln Ser Thr Tyr Asn Ile Ile Tyr Leu Arg
50 55 60

<210> 36674
<211> 96
<212> PRT
<213> A.fumigatus

<400> 36674
Ser His His Ser Ile Tyr Asp Leu Pro Pro Thr Leu Ile Ala Lys Pro
1 5 10 15
Leu Pro Thr Arg Asp Pro Asn Ala Pro Lys Thr Lys Gly Lys Lys Pro
20 25 30
Ala Pro Lys Ser Lys Ala Pro Lys Lys Lys Glu Ser Leu Ser Ala Phe
35 40 45
Ala Arg Arg Lys Ser Glu Leu Asp Asp Asp Thr Pro Arg Ala Phe Arg
50 55 60
Arg Leu Met Gln Leu Gln Ala Lys Gly Arg Gln Ala Ser Thr Thr Gln
65 70 75 80
Thr Arg Cys Arg Arg Asp Arg Lys Gln Glu Ala Pro Gly Arg Tyr Asn
85 90 95

<210> 36675
<211> 538
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (10)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36675
Val Lys Thr Glu Gly Pro Cys Arg Cys Xaa Leu Arg Pro Arg Lys Gly
1 5 10 15
Arg Leu Asp Leu Thr Ala Lys Gln Arg Ser Ser Lys Leu Ser Phe Glu
20 25 30
Asp Ile Ser Val Gly Met Ile Leu Pro Gly Arg Val Thr Lys Val Thr
35 40 45
Glu Lys Gln Val Ile Met Gln Leu Ser Asp Thr Val Val Gly Ala Val
50 55 60
Asn Leu Ile Asp Leu Ala Asp Asp Tyr Ser Lys Ala Asn Pro Thr Val
65 70 75 80
Tyr His Lys Asn Asp Val Leu Arg Ala Cys Val Val Gly Val Asp Lys
85 90 95
Ala Asn Lys Lys Ile Ser Leu Ser Leu Arg Pro Ser Lys Val Leu Ser

```
            100                 105                 110
Ser Ser Leu Pro Val Gln Asp Pro Glu Ile Thr Ser Met Lys Gln Leu
        115                 120                 125
Lys Val Asn Asp Val Val Arg Gly Phe Val Lys Arg Val Ala Asp Ser
    130                 135                 140
Gly Leu Phe Val Thr Leu Gly His Asp Val Thr Ala Tyr Val Arg Val
145                 150                 155                 160
Ser Asp Leu Ser Asp Ser Tyr Leu Lys Glu Trp Lys Asp Ser Phe Gln
                165                 170                 175
Val Asp Gln Leu Val Lys Gly Arg Val Thr Val Val Asp Pro Glu Gln
            180                 185                 190
Gly Arg Leu Gln Met Ser Leu Lys Glu Ser Val Leu Asp Pro Glu Tyr
        195                 200                 205
Lys Ala Pro Ile Thr Met His Asp Leu Lys Val Gly Gln Phe Val Thr
    210                 215                 220
Gly Lys Val Arg Lys Val Glu Glu Phe Gly Ala Phe Ile Val Ile Asp
225                 230                 235                 240
Arg Ser Ala Asn Ile Ser Gly Leu Cys His Arg Ser Glu Met Ala Asp
                245                 250                 255
Lys Arg Val Asp Asp Ala Arg Thr Leu Tyr Glu Glu Gly Asp Leu Val
            260                 265                 270
Lys Ala Lys Ile Ile Lys Ile Asp Arg Glu Ser Gly Lys Ile Ser Phe
        275                 280                 285
Ser Leu Lys Ala Ser His Phe Lys Asp His Asp Glu Glu Asp Glu Ser
    290                 295                 300
Gly Ser Asp Glu Glu Gly Asp Ser Asn Gly Val Ser Leu Asp Gly Met
305                 310                 315                 320
Gly Gly Val Asp Val Glu Gly Ser Asp Asp Ser Glu Asp Asp Asp Asp
                325                 330                 335
Asp Asp Glu Ser Met Gly Gly Val Asp Leu Glu Glu Asp Ser Glu Ser
            340                 345                 350
Asp Gly Gly Glu Ser Asp Glu Asp Val Glu Met Thr Ser Ala Pro Val
        355                 360                 365
Lys Arg Asp Gly Gly Leu Gly Ala Thr Gly Phe Asp Trp Ser Gly Asn
    370                 375                 380
Val Lys Asp Asp Glu Asn Glu Ala Met Gln Ser Asp Ser Asp Asp Glu
385                 390                 395                 400
Asp Asn Ser Arg Lys Lys Lys Lys Lys Ser Arg Lys Pro Glu Ile Gln
                405                 410                 415
Val Asp Arg Thr Gly Glu Leu Asp Ala Asn Gly Pro Gln Ser Val Ala
            420                 425                 430
Asp Tyr Glu Arg Leu Leu Leu Gly Glu Pro Asp Ser Ser Leu Leu Trp
        435                 440                 445
Leu Lys Tyr Met Ala Phe Gln Leu Glu Leu Gly Glu Val Glu Lys Ala
    450                 455                 460
Arg Glu Ile Ala Glu Arg Ala Leu Arg Thr Ile Ser Ile Gly Gln Asp
465                 470                 475                 480
Thr Glu Lys Leu Asn Ile Trp Val Ala Leu Leu Asn Leu Glu Asn Thr
                485                 490                 495
Tyr Gly Asn Asp Asp Ser Leu Asp Glu Val Phe Lys Arg Ala Cys Gln
            500                 505                 510
Tyr Asn Asp Thr Gln Glu Ile Tyr Asp Arg Met Thr Ser Ile Tyr Ile
        515                 520                 525
Gln Ser Gly Lys Asn Glu Val Ser His Pro
    530                 535
```

<210> 36676
<211> 196
<212> PRT
<213> A.fumigatus

<400> 36676
Met Leu Thr Gln Leu Thr Leu Gln Lys Ala Asp Glu Leu Phe Gln Thr
1 5 10 15
Ala Leu Lys Lys Lys Ile Ser Asn Thr Pro Lys Phe Phe Leu Asn Tyr
20 25 30
Ala Ser Phe Leu Phe Asp Ser Met Ala Ala Pro Asp Arg Ala Arg Ser
35 40 45
Leu Leu Pro Arg Ala Leu Gln Ser Leu Pro Ser His Thr His Val Glu
50 55 60
Leu Thr Ser Lys Phe Gly Gln Leu Glu Phe Arg Ser Pro Asn Gly Asp
65 70 75 80
Val Glu Arg Gly Arg Thr Val Phe Glu Gly Leu Leu Ser Ser Phe Pro
85 90 95
Lys Arg Val Asp Leu Trp Asn Val Leu Leu Asp Leu Glu Ile Lys Asn
100 105 110
Gly Asp Ala Glu Gln Val Arg Arg Leu Phe Glu Arg Val Leu Gly Ile
115 120 125
Arg Asp Ala Lys Lys Gly Ala Ala Ala Ala Val Ala Thr Pro Thr Asp
130 135 140
Ala Ser Lys Lys Leu Arg Pro Lys Gln Ala Lys Phe Phe Phe Lys Lys
145 150 155 160
Trp Leu Ser Phe Glu Glu Lys Leu Ala Ala Ala Asn Gly Gly Asp Glu
165 170 175
Lys Met Val Glu Glu Ile Lys Ala Arg Ala Ala Asp Tyr Val Lys Ser
180 185 190
Leu Gln Asn Ala
195

<210> 36677
<211> 266
<212> PRT
<213> A.fumigatus

<400> 36677
Ala Leu Pro Ser Gln Thr Gly Ala Gly Thr Ala Ala Ser Val His Gly
1 5 10 15
Gln Ala Asp Leu Gly Ile Cys Thr Leu Asn Asp Met Arg Ala Asn Ala
20 25 30
Glu Met Leu Ala Asn Ile Ser Pro Ser Thr Pro Val Ile Ala Asp Ala
35 40 45
Asp Thr Gly Tyr Gly Gly Pro Ile Met Val Ala Arg Thr Thr Glu Gln
50 55 60
Tyr Ser Arg Ser Gly Val Ala Ala Phe His Ile Glu Asp Gln Val Gln
65 70 75 80
Thr Lys Arg Cys Gly His Leu Ala Gly Lys Ile Leu Val Asp Lys Glu
85 90 95
Thr Tyr Val Ser Arg Ile Arg Ala Ala Val Gln Ala Arg Lys Arg Met
100 105 110
Gly Ser Asp Ile Val Val Ile Ala Arg Thr Asp Ala Leu Gln Gly Tyr
115 120 125
Gly Tyr Glu Glu Ser Val Ala Arg Leu Arg Ala Ala Arg Asp Ala Gly

```
    130                 135                 140
Ala Asp Val Gly Phe Leu Glu Gly Ile Thr Ser Lys Glu Met Ala Arg
145                 150                 155                 160
Gln Val Val Gln Asp Leu Ala Pro Trp Pro Met Leu Leu Asn Met Val
                165                 170                 175
Glu His Gly Ala Thr Pro Ser Ile Ser Ala Asp Glu Ala Lys Glu Met
            180                 185                 190
Gly Phe Arg Ile Ile Ile Phe Pro Phe Ala Ala Ile Gly Pro Ala Leu
        195                 200                 205
Thr Ala Ile Arg Glu Gly Met Glu Lys Leu Lys Arg Asp Gly Leu Pro
    210                 215                 220
Gly Leu Ser Lys Glu Leu Thr Pro Gln Met Leu Phe Arg Thr Cys Gly
225                 230                 235                 240
Leu Asp Glu Ser Leu Lys Val Asp Ala Glu Ala Gly Gly Ala Ala Phe
                245                 250                 255
Gln Gly Gly Val Asp Leu Glu Asp Lys Glu
            260                 265
```

<210> 36678
<211> 527
<212> PRT
<213> A.fumigatus

<400> 36678

```
Val Leu Ile Ala Gly Ser Cys Gln Val Asp Gly Ala Ser Ala Asp Asn
1                 5                  10                  15
His Arg Tyr Ser Ser Asp Ser Thr Phe Ser Ala Asn Arg Pro Asp Ser
            20                  25                  30
Gly His Arg Val Thr Ser Ser Ile Tyr Ser Arg Asp Thr Phe Asp His
        35                  40                  45
Ser Arg Gln Arg Ser Val Thr Trp Asp His Gln Asn Asp Gly Arg Phe
    50                  55                  60
Phe Arg Asp Pro Glu Thr Ala Ser Glu Asn Leu Ser Val Glu Ile Ser
65                  70                  75                  80
Pro Pro Asp Ser Pro Met Ser Ile Gly Arg Thr Tyr His Ser Arg Gly
                85                  90                  95
Ser Ser Arg Val Ser Ser Leu Glu Phe Glu Ser Asn Pro Thr Ser Asn
            100                 105                 110
Gly Glu His Asn Ile Thr Lys Phe Ala Ser His Leu Pro Ile Pro Arg
        115                 120                 125
Lys Arg Ala Gly Ser Ala Gln Pro His Asn Arg Pro Ser Thr Gln Gly
    130                 135                 140
Leu Ser Asp Gln Asn Arg Thr Ala Arg Trp Asp Gly Phe Thr Asp Gly
145                 150                 155                 160
Pro Thr Thr Ser His Ser Asp Arg Phe Ala Pro Asn Leu Ser Thr Asp
                165                 170                 175
Ile Ser Phe Glu Ser Gln His Thr Gly Ser Ser Asn Ala Ser Arg Trp
            180                 185                 190
Ile Lys Gly His Gly His Ser Lys Glu Gln Asn Thr Glu Gly Arg Gln
        195                 200                 205
Arg Ser Pro Ser Lys Asn Asp Asn Pro Phe Ser Leu Ala Val Arg Glu
    210                 215                 220
Pro Trp Lys Gly Pro Ser Gly Arg Ser Ala Met Ile Asn Pro Ile Gln
225                 230                 235                 240
Glu Lys Pro Lys Glu Arg Ser Ser Ser Arg Val His His Ser Lys Asn
                245                 250                 255
```

```
Asn Asp Arg Asn Asp Arg Ser Lys Glu Ser Asp Cys Ala Ser Pro Asp
            260                 265                 270
Tyr Ser Tyr Leu Gly Phe Val Pro Ser Val Val Thr Thr Ile Thr Gly
        275                 280                 285
Gly Ala Asp Asp Ala Leu Gly Pro Asp Lys Arg Gln Pro Ser Lys Ser
    290                 295                 300
Arg Gln Gln Pro Ser Ile Ala Lys Lys Pro Ile Ser Ala Thr Ser Asp
305                 310                 315                 320
Val Pro Pro Arg Ile Glu Ile Pro Val Pro Thr Leu Glu Thr Thr Leu
                325                 330                 335
Ala Glu Leu Lys Leu Ser Thr Gly Asp Gln Ala Asp Ala Pro Val Ser
            340                 345                 350
Arg Phe Ser Ala Thr Thr Cys Ala Thr Thr Glu Ser Asp Ser Pro Thr
        355                 360                 365
Pro Ser Arg Arg Glu Ser Val Asp Ala Ala Ser Gln Ser Thr Glu Asn
    370                 375                 380
Ala Pro Ser Ile Met Ser Arg Lys Arg Pro Ile Pro Ser Ala Met Ala
385                 390                 395                 400
Pro Gly Lys Lys Pro Ser Arg Lys Pro Thr Pro Ser Gln Ala Asp Asn
                405                 410                 415
Gly Lys Asp Leu Pro Pro Cys Pro Pro Glu Gln Gln Ser Gln Asn Arg
            420                 425                 430
Ile Glu Met Leu Glu Ala Arg Arg Asp Asn Leu Ala Arg Arg Arg Ala
        435                 440                 445
Asn Ile Asn Thr Ile Ile His Glu Leu Thr Gln Val Ile Gln Pro Ser
    450                 455                 460
Ser Ile Ala Tyr Asp Met Ala Ala Arg Asp Glu Val Lys Lys Thr Val
465                 470                 475                 480
Ala Ser Leu Asn Asn Glu Leu Ala Asp Ile Arg Arg Glu Glu His Glu
                485                 490                 495
Ile Gly Met Lys Leu Phe Arg Leu Trp Lys Lys Arg Asp Glu Lys Asn
            500                 505                 510
Leu Tyr Gly Gly Asp Ser Gly Leu Trp Val Lys Arg Val Thr Ser
        515                 520                 525
```

<210> 36679
<211> 120
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (83)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 36679
Ile Ser Ala Leu Pro Leu Val Pro Pro Pro Pro Leu Ile Ser Tyr Phe
1               5                   10                  15
Ser Ser Leu Phe Lys Asn Phe Phe Leu Ile Gly His Phe Pro His Ile
            20                  25                  30
Ala Ala Ile Phe Val Phe His Leu Val Lys Arg Leu Phe Pro Thr Ile
        35                  40                  45
Ser Leu Ser Lys Thr Leu Tyr Thr Met Gly Gly Ala Lys Gln Arg Arg
    50                  55                  60
Tyr Val Val Pro Leu Pro Trp Ile Met Arg Tyr Ser Gln Leu Ser Tyr
65                  70                  75                  80
```

```
Phe Ser Xaa Gly Arg Ala Lys Leu Leu Lys Ala Pro Lys Lys Gly Lys
                85                  90                  95
Lys Glu Leu Asp Glu Glu Asp Leu Ala Phe Lys Glu Arg Gln Arg Ala
            100                 105                 110
Gly Met Leu Ser Thr Cys Gly Arg
        115                 120
```

<210> 36680
<211> 189
<212> PRT
<213> A.fumigatus

<400> 36680

```
His Ala Phe Gln Arg Pro His Ile His Glu Tyr Leu Gln Glu Met His
1               5                  10                  15
Glu Glu Val Phe Ser His Tyr Asp Cys Met Thr Leu Ala Glu Met Ser
            20                  25                  30
Cys Gly Val Ser Ala Pro Glu Ala Val Arg Tyr Thr Ser Arg Phe Asn
        35                  40                  45
Ala Arg Pro Glu Leu Asn Leu Val Ile Gln Phe Gln His Val Glu Leu
    50                  55                  60
Asp Cys His Asp Gly Asp Lys Trp Met Leu Arg Glu Trp Glu Leu Pro
65                  70                  75                  80
Glu Leu Lys Arg Ile Ile Asn Glu Trp Gln Glu Thr Leu Val Lys Asn
                85                  90                  95
Gly Gly Trp Asn Thr Val Trp Met Glu Asn His Asp Gln Pro Arg Gly
            100                 105                 110
Ile Ser Arg Phe Thr Thr Asn Ser Pro Arg Phe Arg Ala Met Cys Ala
        115                 120                 125
Lys Leu Leu Ala Leu Trp Gln Phe Thr Leu Gln Gly Thr Asn Leu Ile
    130                 135                 140
Phe Gln Gly Gln Glu Leu Gly Met Ile Asn Pro Gly Leu Phe Ser Glu
145                 150                 155                 160
Asp Met Asn Gln Asp Ile Glu Thr Ile Gln Tyr Trp Lys Ala Tyr Val
                165                 170                 175
Ser Leu Ile Leu Ala Arg His Ile Val Arg Leu Leu Thr
            180                 185
```

<210> 36681
<211> 75
<212> PRT
<213> A.fumigatus

<400> 36681

```
Phe Trp Gly Arg Asn Glu Leu Glu Asn Tyr Ser Val Leu Arg Glu Glu
1               5                  10                  15
Lys Ile Leu Met Lys Gly Glu Lys Asn Ile Ile Leu Asn Tyr Gly Trp
            20                  25                  30
Asp Asn Thr Leu Leu Thr Thr Leu Leu Phe Trp Ala Pro Ile Leu Ile
        35                  40                  45
Ser Ser Lys Thr Pro Lys Lys Phe Gly Ile Glu Trp Ile Leu Pro Pro
    50                  55                  60
Ile Phe Phe Leu Cys Cys Leu Pro Ser Phe Pro
65                  70                  75
```

<210> 36682

<211> 85
<212> PRT
<213> A.fumigatus

<400> 36682
Gln Cys Leu Gly Pro Gly Lys Arg Ile Met Pro Ser Thr Pro Thr Arg
1 5 10 15
Ser Gln Phe Ser Ser Pro Ala Lys Pro Arg Glu Ser Pro Val Ser Val
20 25 30
Glu Thr Gln Arg Tyr Met Ala Arg Met Arg Arg Met Glu Arg Glu Glu
35 40 45
Asp Ala Ser Leu Gln Arg Leu Asn Glu Gln Leu Gln Ala Met Ile Lys
50 55 60
Glu Gly Lys Gln Ala Leu Gly Thr Arg Val Glu Val Asp Asp Leu Asp
65 70 75 80
Leu Asp Glu Asp Tyr
85

<210> 36683
<211> 76
<212> PRT
<213> A.fumigatus

<400> 36683
Ser Phe Ser Glu Cys Ala His Asn Ser Arg His Ser Phe Tyr Ile Asp
1 5 10 15
Thr Pro Lys Arg Ser Phe Thr Phe Gln Ile Leu His Asp Tyr Tyr Gln
20 25 30
Met Thr Thr Val Leu Leu Arg Tyr Leu Ile Pro Phe Val Val Val Leu
35 40 45
Arg Ser Ser Gly Leu Phe Lys Ser Asp Leu Gln Pro Arg Glu Leu Gln
50 55 60
Ser Pro Ser Leu Ala Ser Ala Gln Arg Leu Tyr Phe
65 70 75

<210> 36684
<211> 69
<212> PRT
<213> A.fumigatus

<400> 36684
Thr Arg Gln Ile Gln Asp Thr Val Met Leu Asp Asn Met Lys Ile Phe
1 5 10 15
Ser Leu Met Gly Lys Met Pro Val Glu Gly Leu Pro Gln Tyr Gln Phe
20 25 30
Ser Phe Leu Thr Gln Ser Arg Glu Pro Phe Thr Pro Cys Leu Gly Arg
35 40 45
Asp Gly Pro Gln Arg Val Thr Asp Gly Asn Ala Arg Leu Thr Ile Ser
50 55 60
Ala Thr Gly Thr Ile
65

<210> 36685
<211> 109
<212> PRT
<213> A.fumigatus

<400> 36685
Leu Leu Arg Thr Asp Pro Ser Lys Pro Thr Thr Phe Ser Ile Ser Arg
1 5 10 15
Asp Leu Thr Ala Trp Tyr Asn Ala Phe Gly Ser Ser His Asn Ile Val
20 25 30
Ala His Glu Glu Thr Asn Met Ile Tyr Ala Val Gly Thr Thr Arg Ser
35 40 45
His Ser Cys Ala Gly Gly Leu Trp Met Val Asp Val Ser Asn Pro Ala
50 55 60
Lys Pro Ile Ser Pro Gly Cys Val Asn Gln Asp Gly Tyr Val His Asp
65 70 75 80
Gly Lys Pro Leu Pro Ala Leu Ile Val Pro Cys His Thr Asn Ser His
85 90 95
Ser Thr Met Cys Asn Leu Gln Gly Ala Arg Gln Glu Val
100 105

<210> 36686
<211> 116
<212> PRT
<213> A.fumigatus

<400> 36686
Tyr Ala Glu Arg Lys Arg Tyr Leu Asp Asn Met Lys Phe Thr Ala Phe
1 5 10 15
Ser Leu Leu Ser Leu Ala Cys Ala Ala Val Ala Ser Arg Glu Gly Glu
20 25 30
Ala Ala Met Asp Arg Leu Met Ser Val Lys Val Glu Glu Arg Glu Arg
35 40 45
Phe Arg Ala Glu Gly Leu Phe Asp Ala Asn Gln Tyr Pro Asp Leu Gly
50 55 60
Ser Gln Lys Cys Val Asn Gly Lys Ala Gly Glu Tyr Ser Cys Glu Asn
65 70 75 80
Val Asp Leu Leu Gly Phe Leu Ser His Gln Ala Met Gly Ser Lys Thr
85 90 95
Arg Glu Gly Asn Asp Ile Trp Gly Met Leu Leu Thr Glu Asn Ile Ser
100 105 110
Asn Lys Ala His
115

<210> 36687
<211> 212
<212> PRT
<213> A.fumigatus

<400> 36687
Ser Phe Arg Ala Ile Leu Thr Ala Thr Ala Gln Cys Val Ile Tyr Lys
1 5 10 15
Gly Pro Asp Lys Lys Tyr Asn Gly Arg Glu Ile Cys Phe Asn Tyr Asn
20 25 30
Glu Asp Ser Leu Thr Ile Val Asp Val Ser Asn Lys Lys Ser Pro Val
35 40 45
Gln Ile Ser Lys Thr Pro Tyr Ala Gly Ser Ser Tyr Thr His Gln Gly
50 55 60
Trp Val Thr Asp Met Glu Asp Met Ser Tyr Leu Leu Leu Asp Asp Glu
65 70 75 80

```
Leu Asp Glu Lys Asp Gly Thr Gly Val Ala Ala Asn Gly His Thr Thr
                85                  90                  95
Thr Tyr Val Phe Asp Ile Arg Asn Leu Ala Lys Pro Lys His Thr Gly
            100                 105                 110
Thr Tyr Gln Ser Pro Val Lys Ser Ile Asp His Asn Gln Tyr Val Leu
        115                 120                 125
Asn Gly Leu Ser Tyr Met Ser Asn Tyr Ser Ser Gly Leu Arg Ile Val
    130                 135                 140
Asp Val Arg Ser Val Thr Gln Asp Pro Thr Gly Ala Lys Phe Lys Gln
145                 150                 155                 160
Val Gly Phe Phe Asp Cys His Pro Asp Asp Asp Ala Glu Gly Gly Lys
                165                 170                 175
Val Gln Phe Val Gly Ser Trp Ser Val Tyr Pro Tyr Phe Lys Ser Gly
            180                 185                 190
Asn Ile Leu Leu Asn Ser Ile Glu Arg Gly Val Phe Ser Leu Lys Tyr
        195                 200                 205
Thr Gly Pro Lys
    210
```

<210> 36688
<211> 88
<212> PRT
<213> A.fumigatus

```
<400> 36688
Asn Tyr Asp Ile Leu Gly Leu Tyr Val Leu Ile Phe Ser Thr Thr Ser
1               5                   10                  15
Ser Leu Thr Phe Tyr Tyr Asn Arg His Thr Met Gly Tyr Ala Val Ser
            20                  25                  30
Gln Gly Thr Gly Pro Tyr Pro Ala Thr Val Gly Ala Pro Cys Leu Arg
        35                  40                  45
Ala Cys Ser Thr Arg Ile Thr Tyr Leu Asp Cys Thr Cys Ser Arg Tyr
    50                  55                  60
Cys Glu Pro Arg Val Thr Val Cys Asp Ser Leu Arg Pro Val Ser Ala
65                  70                  75                  80
Lys Ala Arg Cys Glu Gly Phe Ser
                85
```

<210> 36689
<211> 391
<212> PRT
<213> A.fumigatus

```
<400> 36689
Ile Thr Ala Phe Ser Glu Ile Tyr Ser Ser Thr Arg Pro Ser Gly Ser
1               5                   10                  15
Cys Leu Ile Gly Arg Glu Ile Thr Pro Phe Phe Leu Phe Cys Lys Met
            20                  25                  30
Glu Ser Pro Ile Asp Gly Arg Ile Ala Arg Ser Ala Arg Gln Leu Asn
        35                  40                  45
Cys Gln Ser Glu Arg Glu Thr Gly Leu Ile Glu Lys Glu His Leu Thr
    50                  55                  60
Thr Glu Thr Gly Ser Thr Leu Ser Ser Phe Ser Asp Glu Asp Ser Glu
65                  70                  75                  80
Leu Ser Leu Gly His Gln Gln Gly Ser Arg Gly Arg Arg Arg Val Ser
                85                  90                  95
```

```
Arg Lys Tyr His Ala Arg Ala His Gly His Ser Trp Phe Ser Gln Arg
            100                 105                 110
Ser Thr Arg Pro Ala Thr Gln Arg Asp His Val Pro Gln Val Ser His
        115                 120                 125
Gln Arg Val Arg Ala Asn Ser His Ser Leu His Ser Leu Leu Pro Ser
    130                 135                 140
His Val Ser Leu Ser Ser Ser Leu Phe Phe Ser Pro Pro Ser Pro Ser
145                 150                 155                 160
Ser Tyr Pro Ser Ser Ser Thr Phe Ser Gln Ser Ser Pro Ser Thr Ser
                165                 170                 175
Pro Ser Pro Leu Pro Phe Thr Lys Arg Ala Lys Thr Lys Ala Met Thr
            180                 185                 190
Gln Gly Ser Arg Pro Arg Ser Thr Leu Leu Arg Glu Arg Lys Arg Ser
        195                 200                 205
Leu Gln Pro Ser Arg Gln Gln Val Pro Ser Gln Ala Pro Ser Ser Gly
    210                 215                 220
Gln His Val Pro Pro Val Thr Pro Gln Arg Ser Gln Trp Gln Gln Ile
225                 230                 235                 240
Pro Gln Val Leu Gln His Pro Ser Thr Ile Leu Cys Pro Trp Arg Leu
                245                 250                 255
Trp Glu Ser Val Ala Val His Val Phe Asn Ile Pro Arg Glu Ala Asp
            260                 265                 270
Thr Tyr Cys Leu Trp Gln Ala Phe Ser Lys Glu Gly His Val Phe Ser
        275                 280                 285
Ile Asp Ile Phe Glu Asp Phe His Gly Asn Arg Glu Ser Arg Gly Lys
    290                 295                 300
Ile Arg Phe Lys Ser Ala Asp Ser Pro Leu His Ser Ile Asn Trp Pro
305                 310                 315                 320
Asn Pro Phe Ser Arg Pro Pro Pro Gln Lys Asp Phe Trp Cys His Gly
                325                 330                 335
Thr Tyr Pro Ile Thr Leu Ser Asp Gly Lys Pro Thr Phe Val Ser Ile
            340                 345                 350
Thr Leu Asp Leu Lys Arg Pro Asp Val Gln Ile Gln Ser Pro Leu Arg
        355                 360                 365
Pro Asn Thr Met Tyr Pro Ala Glu Val Val Gly Leu Ser Thr Phe Pro
    370                 375                 380
Tyr Cys Thr Ile Phe Gln Arg
385                 390
```

<210> 36690
<211> 255
<212> PRT
<213> A.fumigatus

<400> 36690

```
His Val Phe Glu Arg Ile Arg Phe Leu Val Ser Ala Gly Leu Arg Trp
1               5                   10                  15
Asn Thr Thr Gln Met Ser Tyr Leu Thr Leu Pro Arg Glu Leu Lys Ser
            20                  25                  30
Ile Glu Thr Ser Asp Arg Tyr Trp Tyr Val Leu Val Ile Asn Phe Glu
        35                  40                  45
Phe Tyr Phe Phe Leu Leu Gln Phe Glu Thr Asn Gly Phe Thr Leu Gly
    50                  55                  60
Arg Trp Asn Ala Phe Arg Ile Thr Tyr Pro Glu Ala Leu Ser Lys Lys
65                  70                  75                  80
Asp Glu Glu Arg Phe Glu Leu Phe Cys Asn Ile Leu Asn Asp Tyr Asn
```

```
                85                  90                  95
Ile Ala Ile Glu Asn Thr Thr Arg Phe Ser Val Leu Asp Gln Thr Gln
            100                 105                 110
Glu Arg Pro Pro Pro Ile Trp Arg Trp Ile Asp Phe Ala Asp Leu Gln
        115                 120                 125
Gly Ser Lys Lys Ile Val Ser Ser Val Glu Glu Leu Gly Asp Glu Thr
    130                 135                 140
Tyr Val His Leu Pro Phe Pro Val Arg Tyr Gln Leu Glu Val Cys Leu
145                 150                 155                 160
Ser His Asn Tyr Leu Ser Glu Phe Thr Met Ser Arg Glu Phe Ala Val
                165                 170                 175
Lys Leu Leu Asn Leu Gly Glu Ser Glu Ala Val Lys Leu Leu Glu His
            180                 185                 190
Val Ala Ile Lys Glu Glu Val Tyr His Asp Pro Met Lys Ile Phe Asp
        195                 200                 205
Leu Lys Phe Ala Lys Gly Ser Thr Arg Ala Lys Ile Pro Ser Tyr Cys
    210                 215                 220
Cys Tyr Met Arg Ser Ala Arg Ile Thr Pro Thr Thr Ile Tyr Tyr Asn
225                 230                 235                 240
Thr Pro Ser Val Val Phe Thr Pro Gly Leu Glu Gly Asn Ala Leu
                245                 250                 255
```

<210> 36691
<211> 66
<212> PRT
<213> A.fumigatus

<400> 36691

```
Arg Leu Leu Ser Tyr Met Leu Val Pro Ala Ser Phe Ile Arg Ser Asp
1               5                   10                  15
Arg Gln Tyr Lys Thr Leu Leu Tyr Ser Ser Ser Ser His Leu Ser Leu
            20                  25                  30
Ser Phe Tyr Lys Ile Ile Phe Leu Lys Ile Ala Val Ser Glu Gln Phe
        35                  40                  45
Ile Arg His Thr Lys Leu Arg Val Gln Ser Ile Thr Ala His Trp Tyr
    50                  55                  60
Val Ser
65
```

<210> 36692
<211> 101
<212> PRT
<213> A.fumigatus

<400> 36692

```
Tyr Tyr Asp Gln Ser Val Ala Met Phe Arg Ile Leu Glu Ser Gln Ala
1               5                   10                  15
Pro Ala Lys Gln Thr Ala Thr Asp Thr Ile Asn Thr Leu Ser Ser Arg
            20                  25                  30
Leu Gln Ser Ala Thr Leu Leu Glu Asp Arg Arg Ala Ala Ile Gln Gly
        35                  40                  45
Leu Arg Ser Phe Ser Lys Leu Tyr Pro Ala Ser Val Ala Ser Gly Ala
    50                  55                  60
Leu Arg Pro Leu Ile Asn Ser Leu Arg Asn Asp Arg Glu Asp Val Asp
65                  70                  75                  80
Thr Ile Lys Val Val Leu Glu Thr Leu Leu Met Leu Phe Ser Pro Asp
```

```
                85                  90                  95
Glu Ser Ser Val Arg
            100
```

<210> 36693
<211> 118
<212> PRT
<213> A.fumigatus

<400> 36693

```
Leu Met Arg Arg Lys Arg Gln Asp Asn Ile Thr Ala Leu Leu Asp Leu
1               5                  10                  15
Leu Asp Thr Arg Asp Phe Tyr Ser Arg Leu Tyr Ser Leu Gln Leu Met
            20                  25                  30
Phe Gln Ile Ser Ser Ala Arg Pro Glu Arg Thr Gln Glu Cys Ile Leu
        35                  40                  45
Thr Ala Pro Leu Gly Ile Pro Arg Leu Val Gly Ala Leu Gly Asp Ser
    50                  55                  60
Arg Glu Pro Ile Arg Asn Gly Lys Leu His Arg Val Trp Ile Phe Tyr
65                  70                  75                  80
Asn Ala Arg Val Thr His Arg Thr Cys Ala Phe Tyr Arg Ser Ile Thr
                85                  90                  95
Phe Thr His Cys Ile Asp Thr Cys Leu Gly Gly Ile Ser Glu Thr Arg
            100                 105                 110
Cys Leu Arg Lys Cys Leu
        115
```

<210> 36694
<211> 675
<212> PRT
<213> A.fumigatus

<400> 36694

```
Ala Leu Ala Thr Cys Ala Asp Leu Ile Arg Gly Asn Ser Ser Leu Gln
1               5                  10                  15
Glu Arg Phe Gly Asp Ile Glu Val Phe Trp Gly Arg Gln Pro Ser Gln
            20                  25                  30
Asp Gly Val Val Asn Gly Asp Lys Val Ala Asn Gly Val Gln Arg Val
        35                  40                  45
Asn Val Ile Glu Ala Leu Leu Lys Leu Ser Leu Glu Pro Ala Pro Ile
    50                  55                  60
Gln Val Leu Asp Ala Arg Leu Ala Ala Ser Glu Cys Ile Lys Ala Phe
65                  70                  75                  80
Phe Ala Asn His Pro Gly Ile Arg Val His Val Leu Arg Arg Ala Ile
                85                  90                  95
Asp Gly His Leu Ser Gly Gln Asp Gln Ile Pro Asn Ile Met Thr Val
            100                 105                 110
Leu Leu Val Pro Pro Asp Ala Arg Gly Asn Ser Asp Pro Tyr Gln Val
        115                 120                 125
Trp Ile Ala Ser Val Leu Met Phe His Leu Leu Phe Glu Asp Ala Glu
    130                 135                 140
Ala Lys Ala Ile Ala Met Gln Val Thr Glu Gly Asp Ala Glu Ser Gly
145                 150                 155                 160
Glu Glu Val Ile Thr Cys Ile Gln Thr Ile Leu Gly Asn Leu Ile Thr
                165                 170                 175
Gly Met Lys Arg Gly Asp Asp Glu Arg Ile Thr Val Gly Tyr Leu Met
```

```
            180                 185                 190
Leu Leu Cys Gly Trp Leu Phe Glu Glu Pro Asp Ala Val Asn Asp Phe
        195                 200                 205
Leu Gly Glu Gly Ser Ser Val Gln Ser Leu Leu Gln Glu Thr Lys His
    210                 215                 220
Arg Gly Val Ser Asn Val Ile Met Pro Gly Leu Thr Thr Ile Leu Leu
225                 230                 235                 240
Gly Ile Ile Tyr Glu Phe Ser Thr Lys Asp Ser Pro Ile Pro Arg Ala
                245                 250                 255
Thr Leu His Lys Leu Leu Leu Asp Gln Leu Gly Arg Glu Gln Tyr Ile
            260                 265                 270
Asp Lys Ile Thr Arg Phe Arg Glu Ser Pro Met Val Arg Asp Phe Glu
        275                 280                 285
Val Leu Pro Gln Thr Val Gly Gly Gln Phe Asp Ala Gly Leu Pro Asp
    290                 295                 300
Ile Phe Phe Asp Arg Thr Phe Ile Asp Phe Ile Lys Asp Asn Phe Ser
305                 310                 315                 320
Arg Leu Ile Arg Ala Ile Asp Arg Glu Pro Gly Leu Glu Ile Ser Val
                325                 330                 335
Ile Thr Asn Gly Ile Gln Arg Gly Val Ser Arg Glu Leu Val Asp Ser
            340                 345                 350
Leu Arg Ala Glu Leu Asp Glu Arg Ser Gln Ala Val Gln Lys Leu Glu
        355                 360                 365
Ser Asp Leu Leu Asn Leu Arg Asn Gln Leu Glu Gln Glu Gln Leu Glu
    370                 375                 380
His Arg Lys Phe Lys Asp Leu Ser Ile Ser Glu Ala Ser Lys Ile Arg
385                 390                 395                 400
Gln Ile Asn Glu Ser Leu Gln Arg Asn His Glu Gln Glu Leu Ala Arg
                405                 410                 415
Leu Glu Glu Gln His Asn Tyr Ala Lys Asn Glu Leu Leu Lys Gln His
            420                 425                 430
Gly Asp Gln Leu Arg Ala Ile Asp Asn Gln Leu Lys Glu Thr Ser Ala
        435                 440                 445
Glu Tyr Glu Arg Arg Ser Gln Lys Val Lys Lys Leu His Asp Thr Glu
    450                 455                 460
Val Ala Asp Leu Gln Lys Lys Leu Gln Ser Leu Glu Leu Glu Leu Thr
465                 470                 475                 480
Arg Val Arg Glu Gln Ser Ala Asp Glu Ile Gly Gly Leu Gln Ser Thr
                485                 490                 495
Ile Gln Thr Met Arg Ser Glu Ala Asp Gln Ser Lys Gly Gln His Trp
            500                 505                 510
Ala Gln Val Ala Glu Leu Glu Ser Thr Ile Gln Ser Leu Arg Ser Glu
        515                 520                 525
Leu Asp Glu Asn Lys Ala Asn His Ala Asp Gln Val Ser Asn Leu Ser
    530                 535                 540
Asp Thr Ile Arg Arg Leu Gln Ser Glu Leu Asp Lys Ala Lys Glu Gly
545                 550                 555                 560
His Glu Ala Glu Leu Ala Asp Leu Arg Ala Lys Ala Gln Thr Val Gln
                565                 570                 575
Ser Glu Leu Asp Thr Ala Lys Gln Glu His Glu Thr Glu Ile Ser Gly
            580                 585                 590
Leu Arg Val Lys Ala Gln Ser Leu Gln Ser Glu Leu Asp Ser Arg Thr
        595                 600                 605
Glu Arg Ser Lys Glu Asp Leu Gln Ala Val His Asp Asp Tyr Leu Ser
    610                 615                 620
Lys Leu Ser Glu Leu Glu Lys Arg Val Lys Leu Ala Glu Ser Lys Ala
```

625 630 635 640
Glu Lys Ala Glu Ala Asp Ala Leu Lys Ser Ala Glu Thr Leu Lys Glu
645 650 655
Val Gln Ala Gln Leu Gly Lys Thr Lys Ala Glu Val Asp Glu Lys Asp
660 665 670
Glu Ala Arg
675

<210> 36695
<211> 187
<212> PRT
<213> A.fumigatus

<400> 36695
Leu Ile Val Arg Ala Arg Phe Thr Glu Ala Leu Leu Leu Leu Ile Ala
1 5 10 15
Leu Thr Pro Ala Ser Glu Glu Phe Gln Lys Leu Val Ala Phe Glu Asn
20 25 30
Ala Phe Asp Val Ile Leu Ser Leu Ile Glu Asn Glu Gly Gly Leu Ile
35 40 45
His Gly Leu Glu Val Val Glu Asp Cys Leu Ser Leu Leu Ala Asn Leu
50 55 60
Leu Arg Leu Asn Ile Ser Asn Gln Ser Tyr Phe Arg Glu Thr Gly Cys
65 70 75 80
Val Arg Arg Leu Ala Lys Leu Leu Ala Asp Val Asn Lys Asp Glu Asp
85 90 95
Pro Ala Glu Asp Ile Pro His Trp Thr His Gly Gln Arg Asp Lys Asn
100 105 110
Ile Trp Gly Leu Leu Val Ile Ile Gln Leu Phe Leu Thr Lys Gly Gly
115 120 125
Ile Asn Thr Pro Ala Asn Gln Met Ala Leu Trp Asn Asn Gly Val Met
130 135 140
Glu Gln Ile Leu Ser Ala Ala Phe Gly Gln Lys Phe Asn Val Asn Val
145 150 155 160
Thr Ser Lys Val Cys Ala Phe Glu Phe Ser Arg Tyr Asp Ser Ser Val
165 170 175
Asp Leu Ser Arg Arg Trp Leu His Ala Pro Ile
180 185

<210> 36696
<211> 75
<212> PRT
<213> A.fumigatus

<400> 36696
Ala Thr Asn Phe Val Cys Thr Leu Phe Pro Asp Ala Gly Lys Leu Gln
1 5 10 15
Phe Gln Arg Leu Glu Phe Leu Leu Lys Ile Ser Asp Phe Arg Ile Val
20 25 30
Gln Leu Phe Asp Phe Leu Ala Ser Pro Leu Ile Phe Ser Gly Gly Phe
35 40 45
Leu Glu Leu Val Val Asp Ser Ser Lys Leu Ile Ala Met Leu Phe Gln
50 55 60
Gln Phe Val Leu Gly Ile Ile Val Leu Phe Phe
65 70 75

<210> 36697
<211> 178
<212> PRT
<213> A.fumigatus

<400> 36697
Asp Arg Arg Asn Pro His Leu Val Arg Ile Gly Ile Ser Ser Ser Ile
1 5 10 15
Arg Arg His Glu Gln Asn Ser His Asp Ile Arg Asn Leu Ile Leu Pro
20 25 30
Ala Glu Met Ser Ile Asn Arg Ser Pro Gln His Val Asp Ala Asn Ser
35 40 45
Arg Met Ile Cys Lys Glu Cys Leu Asp Ala Leu Ala Cys Gly Gln Pro
50 55 60
Gly Ile Lys Tyr Leu Tyr Trp Gly Trp Phe Lys Thr Gln Phe Lys Gln
65 70 75 80
Cys Phe Asp Tyr Val Tyr Thr Leu Asn Thr Val Arg Asp Phe Val Pro
85 90 95
Ile Asp Asn Ala Ile Leu Thr Gly Leu Ser Thr Pro Lys Asp Leu Asn
100 105 110
Ile Pro Glu Ser Leu Leu Gln Arg Arg Val Ser Ala Asp Gln Ile Gly
115 120 125
Ala Cys Ser Gln Arg Leu Asp Arg Ser Thr Asp Glu Ser Tyr Leu Glu
130 135 140
Asn Ser Lys Ala Gln Thr Leu Asp Val Thr Leu Thr Leu Asn Phe Trp
145 150 155 160
Pro Lys Ala Ala Leu Asn Ile Cys Ser Ile Thr Pro Leu Phe His Lys
165 170 175
Ala Ile

<210> 36698
<211> 109
<212> PRT
<213> A.fumigatus

<400> 36698
Ser Thr Val Ala Ile Met Gly Val Pro Ala Leu Phe Arg Trp Leu Ser
1 5 10 15
Asn Lys Tyr Pro Lys Ile Ile Ser Pro Val Ile Glu Glu Leu Pro Tyr
20 25 30
Glu Val Asn Gly Glu Glu Ile Pro Val Asp Ile Thr Lys Pro Asn Pro
35 40 45
Asn Gly Glu Glu Met Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Val
50 55 60
His Pro Cys Thr His Pro Glu Gly Lys Pro Pro Pro Ala Asn Glu Gln
65 70 75 80
Glu Met Met Val Glu Ile Phe Lys Tyr Thr Asp Arg Val Val Asn Met
85 90 95
Val Arg Pro Arg Lys Leu Leu Met Ile Ala Val Gly Met
100 105

<210> 36699
<211> 97
<212> PRT
<213> A.fumigatus

<400> 36699
Ala Ala Leu Leu Val Thr Val Leu Ile Leu Leu Val Ile Ile Ile Ile
1 5 10 15
Thr Arg Val Val Gly Arg Val Ser Thr Gln Pro Val Leu Asp Ile Leu
20 25 30
Glu Ile Leu Val Val Leu Lys Ile Thr Asp Ile Leu His Leu Thr Asn
35 40 45
Ala Leu Phe Leu Phe Ile Leu Asn Leu Phe Thr Val Val Glu Ile Leu
50 55 60
Ile Pro Leu Thr Leu Thr Cys Ala Leu Gln Thr Ala Gln Asp Leu Phe
65 70 75 80
Pro Asp Pro Leu Leu Asn Ile Lys Arg Pro Val Thr Val Arg Ala Ala
85 90 95
Pro

<210> 36700
<211> 149
<212> PRT
<213> A.fumigatus

<400> 36700
Ser Leu Glu Ser Ser Ala Glu Ser Pro Pro Asn Gln Ser Ser Ile Ser
1 5 10 15
Ser Arg Ser Ser Ser Ser Ser Arg Ser Leu Thr Tyr Ser Thr Ser Pro
20 25 30
Thr Pro Ser Ser Ser Ser Ser Ser Ile Ser Ser Pro Ser Ser Arg Ser
35 40 45
Ser Ser Arg Ser Pro Ser Pro Val Arg Ser Arg Pro Arg Arg Thr Phe
50 55 60
Phe Gln Ile Pro Ser Ser Thr Leu Ser Gly Arg Ser Pro Tyr Ala Pro
65 70 75 80
Leu Arg Asn Arg Ser Ile Ser Ser Arg Ser Ile Ala Arg Ser Thr Leu
85 90 95
Ala Ala Asp Ser Ala Leu Arg Ser Leu Val Ser Ser Leu Arg Arg Ile
100 105 110
Leu Gly Ala Ser Phe Gly Thr Ile Phe Ser Pro Ser Arg Ser Ser Ser
115 120 125
Leu Ala Ile Phe Arg Ile Arg Ile Ala Thr Cys Val Ser Arg Val Arg
130 135 140
Arg Cys Leu His Leu
145

<210> 36701
<211> 314
<212> PRT
<213> A.fumigatus

<400> 36701
Ile Tyr Ala Arg Thr Asn Pro Ala Arg Ser Arg Thr Thr Lys Gly Gln
1 5 10 15
Asn Phe Cys Arg Asn Glu Tyr Asn Val Ser Gly Leu Cys Asn Arg Gln
20 25 30
Ser Cys Pro Leu Ala Asn Ser Arg Tyr Ala Thr Val Arg Ser Asp Pro
35 40 45

```
Glu Thr Gly Val Met Tyr Leu Tyr Met Lys Thr Ile Glu Arg Ala His
    50                  55                  60
Met Pro Ser Lys Leu Trp Glu Arg Ile Arg Leu Ser Ser Asn Tyr Ala
65                  70                  75                  80
Lys Ala Leu Glu Gln Leu Asp Glu Arg Leu Ile Tyr Trp Pro Lys Phe
                85                  90                  95
Leu Ile His Lys Cys Lys Gln Arg Leu Thr Arg Leu Thr Gln Val Ala
            100                 105                 110
Ile Arg Met Arg Lys Ile Ala Lys Glu Glu Glu Arg Leu Gly Glu Lys
        115                 120                 125
Ile Val Pro Lys Leu Ala Pro Lys Ile Arg Arg Arg Glu Glu Thr Arg
    130                 135                 140
Glu Arg Lys Ala Glu Ser Ala Ala Lys Val Glu Arg Ala Ile Glu Arg
145                 150                 155                 160
Glu Leu Ile Glu Arg Leu Arg Ser Gly Ala Tyr Gly Asp Arg Pro Leu
                165                 170                 175
Asn Val Glu Glu Gly Ile Trp Lys Lys Val Leu Arg Gly Leu Glu Arg
            180                 185                 190
Thr Gly Glu Gly Glu Arg Asp Glu Asp Leu Asp Asp Gly Glu Glu Ile
        195                 200                 205
Glu Asp Glu Glu Glu Glu Gly Val Gly Glu Val Glu Tyr Val Ser Asp
    210                 215                 220
Leu Glu Asp Asp Glu Asp Leu Glu Asp Ile Glu Asp Trp Leu Gly Gly
225                 230                 235                 240
Asp Ser Ala Asp Asp Ser Ser Asp Tyr Asp Asp Asp Glu Glu Asp Glu
                245                 250                 255
Asp Ser Asp Glu Glu Ser Gly Ser Glu Glu Ala Ser Ser Asp Glu Glu
            260                 265                 270
Thr Lys Lys Pro Lys Pro Gly Ala Lys Arg Lys Arg Ala Ala Pro Gln
        275                 280                 285
Val Lys Pro Arg Lys Arg Gly Pro Arg Val Glu Ile Glu Tyr Glu Thr
    290                 295                 300
Glu Gly Ala Gly Lys Glu Ser Ile Leu Ala
305                 310
```

<210> 36702
<211> 87
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3),(4)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 36702
Gly Gly Xaa Xaa Tyr Ser Leu His Cys Pro Ser Ala Pro Gly Glu Asp
1               5                   10                  15
Gly Tyr Gly Ala Val Asn Gly Phe Pro Ala Ala Pro Asn Ser Phe Ser
            20                  25                  30
Asp Ser Phe Asn Ala Asp Ala Ala Ile Glu Glu Leu Asp Asn Ile Arg
        35                  40                  45
Leu Arg Glu Ile Thr Gly Lys Ala Ile Ser Gly Ser Leu Leu Leu Met
    50                  55                  60
Leu Lys Trp Phe Lys Arg Ser Arg Lys Leu Gln Val Arg Gly Leu Cys
65                  70                  75                  80
```

Asp Met Val Ser Asn Arg Leu
85

<210> 36703
<211> 296
<212> PRT
<213> A.fumigatus

<400> 36703
Arg Thr Arg Val Gly Ala Arg Gln Ile Leu Ile Thr Val Lys Ser Leu
1 5 10 15
Thr Leu Ser Ser Phe Phe His Phe Cys His Val His Ser Asp Gln Pro
20 25 30
Pro Asn Ser Ala Asp Asn Ser Glu Glu Asp Ser Ser Pro Ser Asp Asp
35 40 45
Glu Ala Val Pro Pro Pro Ile Leu Arg His Arg Arg Asp Thr Asp Pro
50 55 60
Gly Thr Ser Ser Val Arg Pro Pro Ser Pro Gln Glu Ala Leu Pro Glu
65 70 75 80
Leu Val Glu Gly Ala His Arg Pro Glu Val Asp Glu Leu Gly Phe Pro
85 90 95
Thr Ala Pro Pro Pro Lys Glu Pro Ile Thr Val Phe Ser Phe Arg Asn
100 105 110
Phe Phe Ser Ala Ile Asn Tyr Leu His Ile Met Gln Lys Ile Thr Arg
115 120 125
Asp Lys Ala His Arg Cys Leu Leu Leu Val Gln Tyr Lys Ser Ser Thr
130 135 140
Ile Leu Arg Lys Gly Leu Lys Ile Pro Asp Pro His Leu Arg Phe Tyr
145 150 155 160
Thr Leu Lys Leu Phe Lys Ser Gln Val Pro Tyr Cys Gly Arg Lys Trp
165 170 175
Arg Gln Ser Asn Met Arg Val Ile Thr Ala Ile Tyr Leu Tyr Cys Arg
180 185 190
Pro Glu Leu Arg Asp Asp Trp Leu Ala Gly Ser Asp Ile Asp Ala Glu
195 200 205
Val Glu Glu Ala Leu Pro Leu Glu Gln Ala Leu Arg Gly Leu Thr His
210 215 220
Trp Trp His Leu Arg Arg Tyr Lys Asp Val Met Gly Gly Gly Glu Gly
225 230 235 240
Ala Ser Met Met Glu Glu Glu Arg Asp Phe Phe Val Arg Glu Leu Glu
245 250 255
Ala Met Gly Trp Gly Phe Ala Gly Glu Glu Met Met Asn Glu Glu Ala
260 265 270
Glu Met Ala Ala Asn Gly Val Met Met Asn Gly Thr Glu Trp Asp Gly
275 280 285
Gly Pro Leu Gln Met Glu Gly Trp
290 295

<210> 36704
<211> 64
<212> PRT
<213> A.fumigatus

<400> 36704
Leu Ile Ser Phe Leu Pro Ser Gly Ser Val Arg Leu Ala Asn Pro Leu
1 5 10 15

```
Phe Gly Ile Gln Val His Gln Ile Gln Ser Gly Gln Val Ile Val Asp
            20                  25                  30
Leu Cys Ser Val Val Lys Glu Leu Val Glu Asn Ser Leu Asp Ala Gly
        35                  40                  45
Ala Thr Ser Ile Gly Arg Ile Ile Glu Asn His Gln Arg Tyr Ala Arg
    50                  55                  60
```

<210> 36705
<211> 104
<212> PRT
<213> A.fumigatus

<400> 36705

```
Ser Val Asp Met Leu Ile Leu Val Leu Asp Ile Glu Val Arg Phe Lys
1               5                   10                  15
Asn Asn Gly Leu Asp Ser Ile Glu Val Gln Asp Asn Gly Ser Gly Ile
            20                  25                  30
Ser Pro Glu Asn Tyr Glu Asn Val Gly Lys Leu Ser Phe Gly Glu Tyr
        35                  40                  45
Ser Lys Ser Asp Leu Glu Val Leu Leu Thr Phe Gly Ser Ser Glu Thr
    50                  55                  60
Leu His Ile Glu Thr Leu Val Leu Arg Gly Ser Leu Pro Leu Thr His
65                  70                  75                  80
Phe Arg Phe Pro Arg Arg Ser Thr Leu Val Leu Met Arg Ser Ser Arg
                85                  90                  95
Phe Pro His Arg His Gly Pro Ser
            100
```

<210> 36706
<211> 432
<212> PRT
<213> A.fumigatus

<400> 36706

```
Arg Ser Val Ser Arg Thr Thr Gly Trp Thr Arg Ser Arg Tyr Lys Thr
1               5                   10                  15
Met Glu Ala Glu Tyr His Gln Arg Thr Thr Arg Thr Ser Val Ser Phe
            20                  25                  30
Pro Leu Val Asn Ile Pro Asn Leu Ile Leu Lys Phe Cys Leu Pro Leu
        35                  40                  45
Val Ala Leu Lys His Tyr Thr Ser Lys Leu Ser Ser Tyr Glu Asp Leu
    50                  55                  60
Ser Arg Leu His Thr Phe Gly Phe Arg Gly Glu Ala Leu Ser Ser Leu
65                  70                  75                  80
Cys Ala Leu Ala Asp Phe Arg Ile Val Thr Ala Gln Ala Asn Gln Ala
                85                  90                  95
Pro Lys Ala Thr Lys Leu Glu Phe Glu Thr Ser Gly Lys Leu Ser Lys
            100                 105                 110
Thr Gln Ile Val Ala Gly Gln Lys Gly Thr Thr Ala Ser Val Glu Gly
        115                 120                 125
Leu Phe Lys Lys Leu Pro Val Arg Arg Arg Glu Leu Glu Lys Asn Ile
    130                 135                 140
Lys Arg Glu Tyr Gly Lys Val Leu Asn Leu Leu His Ala Tyr Ala Cys
145                 150                 155                 160
Ile Ser Thr Gly Val Arg Phe Ser Val Arg Asn Thr Val Gly Lys Asn
                165                 170                 175
```

```
Arg Asn Val Met Val Phe Ser Thr Asn Gly Asn Gln Thr Thr Lys Glu
            180                 185                 190
Asn Ile Ala Asn Val Tyr Gly Ala Lys Thr Leu Leu Ala Leu Ile Pro
        195                 200                 205
Leu Asp Leu Thr Leu Glu Phe Glu Pro Ser Ala Ala Gly Arg Arg Thr
    210                 215                 220
Ala Glu Gly Glu Leu His Thr Ile Gln Val Lys Gly His Ile Ser Arg
225                 230                 235                 240
Pro Val Phe Gly Glu Gly Arg Gln Thr Pro Asp Arg Gln Met Phe Phe
                245                 250                 255
Val Asn Ser Arg Pro Cys Gly Leu Pro Gln Ile Ala Lys Ala Phe Asn
            260                 265                 270
Glu Val Tyr Lys Ser Phe Asn Val Ser Gln Ser Pro Phe Val Phe Ala
        275                 280                 285
Asp Leu His Met Asp Thr Asn Ala Tyr Asp Val Asn Val Ser Pro Asp
    290                 295                 300
Lys Arg Thr Ile Leu Leu His Asp Ala Gly Ala Leu Ile Asp Ser Leu
305                 310                 315                 320
Lys Gln Ser Leu Thr Glu Met Phe Glu Ala Thr Asp Gln Thr Val Pro
                325                 330                 335
Leu Ser Gln Ile Ala Asp Tyr Lys Gln Ser Gly Pro Lys Gln Gln Leu
            340                 345                 350
Gly Thr Leu Gln Ala Val Ala Pro Arg Arg Val Leu Ser Glu Lys Glu
        355                 360                 365
Ala Ile Thr Gly Glu Gln Gly His Ser Pro Asp Lys Glu Asp Thr Glu
    370                 375                 380
Ser Ser Gln Leu Ser Ser Gln Glu Lys Leu Lys Ser Phe Leu Ser Asn
385                 390                 395                 400
Leu Gly Ser Arg Gln Gly Arg Ala Thr Pro Ser Ser Ser Pro Val Arg
                405                 410                 415
Arg Gly Gly Val Gly Ala Thr Gly Leu Asp Cys Asn Ala Glu Tyr Pro
            420                 425                 430
```

<210> 36707
<211> 337
<212> PRT
<213> A.fumigatus

<400> 36707

```
Ala Thr Leu Val His Asp Arg Asp Glu Arg Leu His Pro Arg Leu Leu
1               5                   10                  15
Ser Ala Glu Glu Glu Ser Glu Gln Leu Asp Ser Thr Ala Thr Pro Ser
            20                  25                  30
Thr Pro Asp Gly Arg Ala Glu Ser Leu Thr Lys Thr Val Asp Asn Glu
        35                  40                  45
Leu Phe Val Ser Glu Gly Gly Thr Pro Ser Pro Glu Thr Ser Gln Leu
    50                  55                  60
Pro Lys Val Thr Asp Glu Glu Gln Glu Ser Pro Arg Asp Ala Val Glu
65                  70                  75                  80
Gln Ser Thr Pro Arg Gly Gly Ser Glu Leu Tyr Gly His His Thr Pro
                85                  90                  95
Ser Thr Gln Pro Asp Leu Leu Glu Glu Thr Pro Asn Val Ile Gln Asn
            100                 105                 110
Ala Phe Asp Arg Met Arg Pro Arg Arg Met Pro Ala Glu Val Ala Thr
        115                 120                 125
Ile Thr Ile Gly Asn Lys Thr Ile Thr Ser Met Val Gly Ser Gly Met
```

```
    130                 135                 140
Pro Arg Lys Arg Thr Gly Asp Ser Ile Gln Thr Ala Gly Gly Arg Ser
145                 150                 155                 160
Val Arg Lys Arg Arg Ile His Thr Pro Ser Arg Ser Asn Ile Phe Gly
                165                 170                 175
Lys His Met Arg Ala Phe Ala Ala Pro Gly Ser Gln Ile Gln Gln Ala
            180                 185                 190
Ser Ser Val Glu Ala Glu Glu Glu Asp Glu Asp Glu Glu Glu Arg Ala
        195                 200                 205
Glu Asp Glu Glu Ile Met Asp Ser Val Ser Glu Asp Gly Ser Arg Ser
    210                 215                 220
Ser Cys Pro Ser Asp Lys His Asp Asp Arg Ser Ala Glu Val Ser Asp
225                 230                 235                 240
Asp Glu Val Asn Glu Ser Gly Ala Thr Ala Ala Glu Met Met Asn Asp
                245                 250                 255
Glu Glu Lys Lys Lys His Glu Glu Ala Glu Val Gln Arg Leu Ile Arg
            260                 265                 270
Gln Ala Glu Glu Lys Ala Val Leu Pro Gln Glu Asn Ser Ile His Arg
        275                 280                 285
Ala Asn Lys Leu Asn Lys Gly Ala Gly His Arg Asp Ser Thr Thr His
    290                 295                 300
Leu Met Ser Thr Val Asp Gly Ser Leu Pro Lys Ile Glu Ser Gln Met
305                 310                 315                 320
Lys Lys Val Gln His Ser Leu Arg Ser Tyr Arg Lys Asp Val Asp Asn
                325                 330                 335
Ser
```

<210> 36708
<211> 284
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (27)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36708

```
Ser Arg Ser Pro Ser Pro Pro Ala Gly Arg His Asp Asp Asp Ser Ala
1               5                   10                  15
Ser Arg Gln Ser Tyr Asp Asp Arg Pro Pro Xaa Arg Leu Thr Asn Ala
            20                  25                  30
Thr Asp Pro Thr Ala Pro Leu Thr Gly Thr Gly Leu Gly Thr Ala Val
        35                  40                  45
Leu Ala Thr Gly Tyr Ser Asp Asp Phe Asp His Ala Leu Thr Pro Gln
    50                  55                  60
Thr Asp Arg His His Ser Arg Asp Tyr Asp Asp His Glu Gln Gly His
65                  70                  75                  80
His Arg Arg Arg Arg Arg Ser Arg Arg Ser Ser Arg Arg Arg Thr Glu
                85                  90                  95
Ser Asp Ser Asp Gly Tyr Thr Ser Asp Glu Asp Leu Lys Asn Tyr His
            100                 105                 110
Arg Glu Pro Ser Ala Arg Arg Gln Pro Gly Gly Ser Asp Ser Ser Ser
        115                 120                 125
Gly Gly Arg Lys Asp Pro Gly Ser Gln Tyr Leu Thr Val Glu Lys Ala
```

```
    130                 135                 140
His Arg Arg Arg Ser Ser Arg Ser Arg Arg His Gly Glu Asn Gly Ser
145                 150                 155                 160
Leu Arg Asn Glu Thr Ser Gly Arg Glu Ser Ala Ser Ser Gln Glu Asp
                165                 170                 175
Leu Lys Lys Ser Lys Asp Pro Asp Ala Pro Pro Lys Gly Ile Leu Lys
            180                 185                 190
Pro Pro Arg Asp Lys Phe Pro Glu Glu Pro Asn Pro Val Arg Glu Gly
        195                 200                 205
Val Ala Pro Leu Lys Asp Ala His Lys Lys Gly Ile Pro Pro Gly Ala
    210                 215                 220
Arg Trp Thr Lys Ile Asp Arg Arg Leu Val Asn Pro Ala Ala Leu Glu
225                 230                 235                 240
Ala Gly Asn Glu Arg Tyr Glu Glu Arg Pro Asp Tyr Val Ile Val Leu
                245                 250                 255
Arg Val Leu Thr Lys Glu Glu Ile Gln Arg Tyr Ala Ala Arg Thr Gln
            260                 265                 270
Glu Ile Arg Gly Met Cys Cys Ser Ser Thr Trp Tyr
        275                 280
```

<210> 36709
<211> 84
<212> PRT
<213> A.fumigatus

<400> 36709

```
Ser Pro Arg Lys Asn Arg Met Tyr Leu Val Arg Asn Arg Phe Phe Asn
1               5                   10                  15
Val Ser Leu Cys Pro Ala Leu Asn Leu Thr Asn Thr Ser Pro Pro Lys
            20                  25                  30
Ala Asn Ile Thr Ser Arg Leu Thr Glu Leu Arg Leu Pro Glu Gly Tyr
        35                  40                  45
Leu Gly Pro His Asp Ser Phe Arg Lys Pro Ala Ile Ser Glu Ser Ile
    50                  55                  60
Gln Asn Ser Ser Arg Glu Pro Ala Gln Gly Trp Leu His His Ala Thr
65                  70                  75                  80
Gly Gln Leu Tyr
```

<210> 36710
<211> 1051
<212> PRT
<213> A.fumigatus

<400> 36710

```
Ser Phe Ser Leu Ala Pro Asn Val Thr Asn Ile Met Ile Thr Pro His
1               5                   10                  15
Lys Asp Asp Ser Arg Phe Arg Ile Gln Asn Tyr Ser Ser Val Asn Pro
            20                  25                  30
Asp Ala Leu Arg Arg Val Arg Glu Asp Pro Lys Met Cys Ser Ala Ile
        35                  40                  45
Asp Phe Gly Arg Met Cys Val Thr Val Gly Leu Ser Phe Asn Lys Glu
    50                  55                  60
Ser Gln Val Trp Thr Ile Pro Asp Asn Arg Leu Asn Pro Leu Pro Ile
65                  70                  75                  80
Ser Glu Glu Ala Gly Pro Ser Arg Ile Trp Asn Asp Phe Thr Phe Gln
```

```
                85                  90                  95
Glu Ile Gly Lys Ala Asp Glu Phe Val Asp Ile Glu Ala Ile Ile Glu
            100                 105                 110
Asn Asp Pro Ser Lys Pro Gln Thr Leu Ile Ser Gly Ile Ala Pro Pro
        115                 120                 125
His Pro Phe Leu Thr Ala Asp Lys Val Lys Gln Val Asn Gln Trp Val
    130                 135                 140
Val Glu Arg Ala Glu Met Gln Pro Thr Glu His Glu Pro Glu Pro Glu
145                 150                 155                 160
Pro Glu Pro Glu Leu Glu Ser Asp Phe Glu Pro Gln Pro Glu Tyr Glu
                165                 170                 175
Gly Arg Asp Ile His Gln Leu Lys Leu Lys Arg Glu Thr Ala Ile Ile
            180                 185                 190
Pro Gln Ser Lys Arg Pro Pro Gly Met Lys Thr Arg Lys Ala Ala Ile
        195                 200                 205
Thr Ala Lys Val Ala Pro Pro Ser Glu Gln Ser Leu Ala Thr Glu Thr
    210                 215                 220
Lys Pro Val Ala Ile Gly Leu Lys Glu Thr Thr Ala Asn Pro Arg Lys
225                 230                 235                 240
Arg Trp Thr Met Leu Tyr Ser Ser Gly Ala Glu Asp Ala Ser Pro Asp
                245                 250                 255
Asp Ser Asp Ala Leu Asn Ser Gly Ile Ser Asn Leu Asn Asp Thr Leu
            260                 265                 270
Glu Leu Pro Gly Asp Phe Leu Glu Phe Ala Lys Pro Gln Thr Ser Glu
        275                 280                 285
Asn Lys Val Arg Leu Pro Gly Asn Phe Asp Ala Gly Lys Tyr Gly Leu
    290                 295                 300
Asn Gln Ser Ser Arg Gln Thr Ser Lys Glu Gly Lys His Ser Pro Ser
305                 310                 315                 320
Phe Lys Lys Ile Val Gln Val Lys Ser Lys Lys Asn Ser Gly Asp Pro
                325                 330                 335
Asn Glu Leu Ile Asp Val Phe Glu Pro Gly Asn Asn Thr Val Val Gly
            340                 345                 350
Thr Leu Ser Arg Ile Pro Phe Asn Gln Pro Pro Leu Ile Pro Asp Ser
        355                 360                 365
Leu Val Asn Glu Ser Thr Ser Asn Thr Arg Lys Met Cys Leu Gln Glu
    370                 375                 380
Thr Ser Asp Ser Asn Ser Lys Asn Thr Lys Asn Gly Leu Leu Ser Cys
385                 390                 395                 400
Gly Met Gly Asp His Ser Thr Pro Ser Gly Ser Gly Ser Thr Glu Ser
                405                 410                 415
Met Phe Gly Arg Ala Ala Ala Gly Asp Glu Asn His Gln Glu Gln Glu
            420                 425                 430
Asn Arg Leu Ser Phe Leu Lys Asn Phe Leu Gln Glu Arg Thr Asp Asn
        435                 440                 445
Ile Ser Tyr His Gly Gly Tyr Gly Gln Thr His Thr Ser Arg Tyr Glu
    450                 455                 460
Phe Asn Lys Leu Leu Val Lys Glu Ser Leu Ala Lys Leu Glu Thr Val
465                 470                 475                 480
His Arg Asp Gln Asp Arg Gln Gly Ser Asp Glu Thr Ser Thr Arg Glu
                485                 490                 495
Phe Tyr Arg Thr Met Gly His Lys Thr Ala Lys Pro Thr Asn Lys Ala
            500                 505                 510
Lys Ser Lys Ser Glu Ile Lys Ser Lys Arg Gln Ala Thr Leu Glu Asp
        515                 520                 525
Ala Trp Gly Phe Phe Lys Lys Pro Val Lys Lys Pro Ser Ala Val Ala
```

```
    530                 535                 540
Gln Thr Leu Lys Thr Thr Arg Gln Ser Ile Gln Glu Ser Glu Arg Glu
545                 550                 555                 560
Thr Val His Met Ala Ser Arg Lys Asn Glu Leu Ala Ala Glu Pro Ala
                565                 570                 575
Glu Asn Ser Met Ala Arg Asp Val Glu Asn Leu Phe Glu Ala Leu Lys
            580                 585                 590
Gln Thr Leu Glu Ala Ala Glu Tyr Phe Gln Gly Ser Leu Asn Leu Glu
        595                 600                 605
Val His Leu Gly Leu Ile Leu Ile Pro Leu Leu Pro Lys Thr Cys Ser
    610                 615                 620
Glu Gly Ser Thr Ile Tyr Leu Thr Glu Trp Thr Lys Ile Phe Gln Ser
625                 630                 635                 640
Gln Thr Gly Ile Pro Ser Pro Thr Thr Arg Phe Ile Ser Arg Leu Thr
                645                 650                 655
Thr Ser Gly Ile Asp Ile Asp Tyr Leu Val Asp Leu Lys Thr Ala Thr
            660                 665                 670
Pro Glu Gly Lys Arg Arg Ile Phe Glu Gln Asp Phe Arg Glu Tyr Ser
        675                 680                 685
Val Phe Tyr Glu Phe His Cys His Thr Arg Thr Gly Gln Val Leu Val
    690                 695                 700
Leu Ser Val Asp Glu Gln Gly Lys Phe Asn Ile Lys Asn Pro Asn Phe
705                 710                 715                 720
Gly Leu Gly Ala Val Asn Leu His Phe Pro His Gln Val Trp Asp Ala
                725                 730                 735
Ser Ile Val Leu Ser Gly Thr Pro Asn Asp Ala Ala Val Asp Gln Glu
            740                 745                 750
Phe Glu Glu Ala Ala Lys Tyr Ile Ile Glu His Leu Trp Val Arg Pro
        755                 760                 765
Asp Thr Ser Leu Val Gln Ile Phe Thr Arg Leu Pro Pro Gly Asp Lys
    770                 775                 780
Ile Thr Ile Glu Lys Val Tyr Met Lys Arg Trp Thr Arg His Arg Phe
785                 790                 795                 800
Ile His Pro Pro Lys Ser Ile Ile Ala Ala Asn Gly Ala Ser His Ile
                805                 810                 815
Arg Ser Asn Ser Ala Arg Ile Val Glu Thr Asp Leu Asn Ser Asn Ser
            820                 825                 830
Ala Asp Arg Arg Gln Thr Ser Ala Glu Thr Glu Ala Glu Thr Met Glu
        835                 840                 845
Asn Gln Asp Ile Phe Leu Gln Val Met Glu Val Gln Asp Leu Cys Ile
    850                 855                 860
Gly Ser Ser Pro Ser Asp Val Arg Ala Val Thr Ala Cys Cys Val Ser
865                 870                 875                 880
Leu Pro Glu Met Met Gly Ser Gly Arg Gln Trp Tyr Glu Ala Ser Leu
                885                 890                 895
Val Ser Ser Ala Ile Glu Ala Ile Leu Arg Thr Asn Ala Asn Leu Glu
            900                 905                 910
Ile Gly Glu Arg Thr Asp Glu Trp Arg Ser Ser Asp Leu Leu Gly Arg
        915                 920                 925
Asp Ala Val Leu Leu Asp Gly Asn Ala Ala Lys Pro Asp Gly Pro Asn
    930                 935                 940
Thr Pro Leu Ser Pro Val Ala Lys Ala Ile Gly Ile Ala Gly Leu Gly
945                 950                 955                 960
Asp Leu Leu Arg Leu Thr Lys Thr Val Val Glu Glu Met Asp Gly Val
                965                 970                 975
Gly Phe Trp Gly His Gly Leu Asp His Asp Ser Val Gln Ala Pro Ser
```

```
            980                 985                 990
Ile Thr Gly Ser Val Gly Thr Leu Asp Gln Met Val Arg Leu Glu Pro
        995                1000                1005
Arg Ser Leu Asp Phe Asp Asp Phe Glu Ser Ile Lys Lys Phe Gly Ser
    1010                1015                1020
Val Met Ala Thr Thr Leu Thr Lys Lys Ser Ser Gly Gly Ser Ser Ala
1025                1030                1035                1040
Lys Asp Lys Glu Gln Leu Glu Ile Asp Tyr Trp
                1045                1050
```

<210> 36711
<211> 803
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (18)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36711

```
Gly His Lys Val Leu Asn Pro Gly Gly Lys Asn Lys Arg Thr Gly Leu
1               5                  10                  15
Gly Xaa Glu Ile Thr Pro Lys Ala Pro Cys Leu Phe Pro Leu Gly Ala
            20                  25                  30
Glu Glu Glu His Gly Gly Leu Phe Ser Thr Glu Glu Arg Pro Arg Ala
        35                  40                  45
Arg Lys Lys Gly Ile Leu Glu Lys Gly Leu Thr Ser Asn Ser Arg Glu
    50                  55                  60
Phe Cys Leu Ala Thr Glu Arg Ala Val Gln Arg Ser Ala Gly Asn Lys
65                  70                  75                  80
Glu Asn Tyr Ala Leu Glu His Ile Ile Glu Val Ala Asn Lys Asn Pro
                85                  90                  95
Glu Ile Cys Val Val Leu Asp Gly Gln Gly His Met Ser Ala Trp Ala
            100                 105                 110
Leu Glu Asp Val Gly Ser Lys Ala Lys Ser Asn Met Ala Ala Phe Asn
        115                 120                 125
Ile Leu His Val Glu Asn Ile Asp Phe Ser Phe Met Ser Ala Leu Ser
    130                 135                 140
Ala Glu Glu Asp Tyr Ala Gln Leu Cys Ala Phe Gln Thr Ile Pro Leu
145                 150                 155                 160
Gly Asp Ser Ile Ser Ile Ile Val His His Phe Asp Gly Arg Ile Glu
                165                 170                 175
Trp Phe Glu Ser Gln Val Asp Val Leu Phe Asp Pro Thr Pro Arg Lys
            180                 185                 190
Asn Arg Ile Ala Leu Lys Ala Ser Trp Thr Gly His Thr Asp Pro Ile
        195                 200                 205
Lys Lys Ile Val Arg Asn Ala Ala Gly Asp Thr Leu Val Ser Arg Thr
    210                 215                 220
Asn Glu Asn Lys Ala Thr Ile Trp Lys Gln Arg Trp Arg His Gly Arg
225                 230                 235                 240
Ser Val Leu Val Arg Lys Ser Trp Leu Tyr Ser Asp Glu His Ile His
                245                 250                 255
Arg Ser Cys Val Ile Glu Ser Gly Asp Phe Leu Val Asn Leu His His
            260                 265                 270
Tyr Gly Ile Ser Val Trp Asp Val Arg Ser Phe His Ala Arg Lys Ile
```

```
        275                 280                 285
Ala Ser Gln Ser Phe Glu Leu Ser Ser Lys Pro Leu Cys Val Leu Pro
    290                 295                 300
Leu Pro Thr Ala Asp Lys Ser Gly Asn Ala Val Tyr Ile Ala Thr Ile
305                 310                 315                 320
Gly Ala Asp Met Asn Gly Ile Ala Trp Glu Ile Arg Leu Pro Thr Gly
                325                 330                 335
Lys Ser Arg Ile Asn Gly Val Ser Pro Ala Ala Gln Cys Ser Leu Arg
            340                 345                 350
Lys Phe Cys Thr Phe Asn Leu Gly Leu Asp Glu Asp Met Ser Tyr Ile
        355                 360                 365
Leu Pro Val Asp Pro Ala Gly Pro Gln Lys Thr Val Ser Gly Phe Phe
    370                 375                 380
Asp Leu Phe Ser Pro Asp Ile Ala Leu Ser Tyr Thr Thr Arg Gly Val
385                 390                 395                 400
Ile His Thr Trp Thr Ala Lys Val Asp Gln Gln Ser Ser Gln Val Glu
                405                 410                 415
Phe Leu Leu Thr Ser Thr Val Asp Thr Gly Ile Glu Asn Pro Ser Leu
            420                 425                 430
Ala Ser Gly Ser Ser Thr Lys Lys Ala Ala Leu Val Asp Ala Asp Arg
        435                 440                 445
Thr His Leu Thr Ile Trp Asp Thr Asn Gly Ala Gln Leu Glu Phe Glu
    450                 455                 460
Glu His Phe Ala Gln His Asp Val Ile Arg Asp Leu Asp Trp Thr Ser
465                 470                 475                 480
Thr Pro Asp Lys Gln Ser Val Leu Ala Ile Gly Phe Pro His Lys Val
                485                 490                 495
Ile Leu Leu Ser Gln Leu Arg Tyr Asp Tyr Leu Asp Ala Arg Pro Ser
            500                 505                 510
Trp Thr Gln Ile Arg Glu Ile Trp Ile Arg Asp Leu Thr Pro His Pro
        515                 520                 525
Ile Gly Asp Ser Cys Trp Leu Ser Asn Gly His Leu Gly Ile Gly Ala
    530                 535                 540
Gly Asn Gln Leu Phe Val Tyr Asp Asn Glu Ile Asp Ala Ser Asp Arg
545                 550                 555                 560
Leu Val Ser Gln Leu Arg Ile Pro Ser Arg Gly Leu Ser Ser Val Asp
                565                 570                 575
Leu Phe Glu Val Val Ser Arg Leu Asn Gly Pro Leu Pro Val Phe His
            580                 585                 590
Pro Gln Phe Leu Ala Gln Cys Ile Leu Ser Gly Lys Thr Asn Val Val
        595                 600                 605
His Ser Val Leu Thr Thr Leu His Arg Lys Leu Lys Phe Tyr Thr Glu
    610                 615                 620
Gly Asp Asp Ile Asp Gly Phe Leu Glu Arg Pro Leu Glu Asp Phe Tyr
625                 630                 635                 640
Val Glu His Asp Ile Pro Gln Gln Ala Ser Ser Lys His Leu Gln Ala
                645                 650                 655
Ser Tyr Ala Asp Leu Asp Leu Ser Glu Thr Ser Asn Val Met Asp Glu
            660                 665                 670
Asn Ala Ala Ala Ala Leu Asn Glu Asn Leu Ser Arg Phe Ala Phe Pro
        675                 680                 685
Gln Leu Ser Ser His Glu Gln Phe Arg Leu Val Asp Thr Ile Glu Cys
    690                 695                 700
Val Ala Thr Val Glu Lys His Arg Arg Ser Met Asp Asp Asn Ala Ala
705                 710                 715                 720
Arg Tyr Leu Leu Phe Phe Arg Gln His Met Leu Arg Arg Ser Gln Gly
```

```
                725                 730                 735
Val Ala Asn Lys Asp Thr Val Ser Trp Arg Glu Ile Val Trp Ala Phe
            740                 745                 750
His Ser Gly Ser Gln Asp Ile Leu Ser Asp Leu Val Ser Arg Gln Tyr
        755                 760                 765
Gly Gly Lys Met Gln Trp Ala Ser Ala Arg Glu Ser Gly Ile Phe Met
    770                 775                 780
Trp Leu Thr Asp Phe Asn Ala Ile Val Ser Asn Pro Arg Arg His Arg
785                 790                 795                 800
Leu Gln Gly
```

<210> 36712
<211> 103
<212> PRT
<213> A.fumigatus

<400> 36712

```
Arg Ala Asn Thr Glu Gln Arg Ala Gln Leu Glu Leu Val Ala Arg Asn
1               5                   10                  15
Glu Tyr Thr Lys Thr Glu Asp Lys Asn Pro Val Asp Cys Ser Leu Phe
            20                  25                  30
Tyr Ile Ala Leu Lys Lys Lys Asn Ile Leu Gln Gly Leu Trp Arg Met
        35                  40                  45
Ala Asn Trp His Arg Glu Gln Gly Ala Thr Gln Arg Leu Leu Ala Asn
    50                  55                  60
Asp Phe Gln Glu Pro Arg Trp Lys Thr Val Ala Leu Lys Asn Ala Tyr
65                  70                  75                  80
Ala Leu Leu Gly Lys Arg Arg Phe Gly Met Val Phe Leu His Thr Pro
                85                  90                  95
Arg Ile Glu Val Ser Leu Leu
            100
```

<210> 36713
<211> 93
<212> PRT
<213> A.fumigatus

<400> 36713

```
Ala Phe Ser Asp Ile Phe Pro Glu Tyr Ala Ala Ala Phe Phe Leu Leu
1               5                   10                  15
Ala Asp Gln Leu Arg Asp Ala Ala Asn Val Cys Leu Asn Lys Val Gly
            20                  25                  30
Asp Leu Gln Leu Ala Ile Ala Ile Thr Arg Ala Tyr Glu Gly Asp Asn
        35                  40                  45
Gly Pro Ile Leu Arg Glu Ile Leu Glu Glu Arg Val Leu Pro Glu Ala
    50                  55                  60
Ala Ser Asp Gly Asn Arg Trp Met Ala Ser Trp Ala Phe Trp Met Leu
65                  70                  75                  80
Gly Arg Arg Asp Met Ala Val Arg Ser Leu Ile Val Arg
                85                  90
```

<210> 36714
<211> 136
<212> PRT
<213> A.fumigatus

<400> 36714
Ser Pro Val Glu Thr Leu Ile Pro Ser Thr Pro Ser Ser Pro Gly Ser
1 5 10 15
Pro Gly Ser Ile Ser Leu Gln Ala Lys Ser Phe Leu Ser Asn Asp Pro
20 25 30
Ala Leu Val Val Leu Tyr Lys Gln Leu Arg Glu Lys Thr Leu Gln Thr
35 40 45
Leu Lys Gly Ala Ser Gln Val Ser Ala Arg Ala Glu Trp Asp Phe Ile
50 55 60
Ile Arg Asn Ala Arg Leu Tyr Asp Arg Met Gly Cys Asp Leu Leu Ala
65 70 75 80
Leu Asp Leu Val Arg His Trp Glu Phe Leu Ser Val Pro Pro Pro Pro
85 90 95
Lys Thr Leu Lys Asp Val Thr His Lys Leu Gln Glu Asn Gly Val Asp
100 105 110
Tyr Arg Lys Met Leu Arg Arg Arg Ser Arg Ser Cys Gly Arg Arg Tyr
115 120 125
Ser His Ser Gly Trp Arg Ser Lys
130 135

<210> 36715
<211> 130
<212> PRT
<213> A.fumigatus

<400> 36715
Leu Asp Tyr Glu Ser Ala Ile Arg His Gln Asp Glu Pro Gly Val Leu
1 5 10 15
Arg Ser Arg Asp Tyr Phe Asn Thr Leu Ile Lys Glu Gln Ile Asp Lys
20 25 30
Gly Ile Lys Pro Ser Arg Ile Val Leu Gly Gly Phe Ser Gln Gly Ala
35 40 45
Ala Ile Ser Val Phe Thr Gly Ile Thr Cys Lys Glu Lys Leu Gly Gly
50 55 60
Val Phe Gly Leu Ser Ser Tyr Leu Val Leu Ser Asp Lys Leu Lys Asn
65 70 75 80
Tyr Ile Pro Glu Asn Trp Pro Asn Lys Lys Thr Pro Phe Phe Leu Ala
85 90 95
His Gly Leu Glu Asp Glu Ile Val Leu Phe Asp Phe Gly Asp Leu Ser
100 105 110
Ala Lys Lys Met Lys Glu Ile Gly Leu Glu Asp Val Thr Phe Lys Ser
115 120 125
Tyr Pro
130

<210> 36716
<211> 217
<212> PRT
<213> A.fumigatus

<400> 36716
Gln Ser Ser Thr Gly Gly Ile Thr Gln Glu Leu Glu Ile Lys Gly His
1 5 10 15
Lys Phe Val Phe Val Asn Gly Arg Leu Asn Ser Pro Pro Glu Ala Gly
20 25 30

```
Pro Tyr Thr Met Thr Arg Ile Ser Ile Cys Tyr Asn Ser Ser Pro Leu
        35                  40                  45
Thr Gln Ile Thr Glu Ile Glu Gly Ile Leu Asp Gly Pro Phe Tyr Cys
    50                  55                  60
His Tyr Pro Arg Asp Ile Tyr Pro Gly Glu Asp Leu Ala Arg Ala Phe
65                  70                  75                  80
Glu Tyr Thr Leu Asn Ile Ile Glu Lys Gln Gly Pro Phe Asp Gly Val
                85                  90                  95
Met Gly Phe Ser Gln Gly Ala Ala Leu Ala Cys Ala Leu Ile Ala His
            100                 105                 110
His Ala Lys Thr Asn Ser Lys Pro Leu Phe Lys Val Ala Val Phe Ile
        115                 120                 125
Cys Gly Ala Thr Pro Tyr Glu Ser Ser Gly Leu Lys Glu Leu Val Ala
    130                 135                 140
Glu Asp Gly Lys Tyr Pro Val Thr Ile Pro Thr Thr His Ile Val Gly
145                 150                 155                 160
Arg Gln Asp Pro Tyr Tyr Lys Gly Ser Met His Leu Tyr Gly Ile Cys
                165                 170                 175
Asp Pro Ser Lys Ala Val Phe Tyr Asp His Gly Ser Lys His His Ile
            180                 185                 190
Pro Phe Asp Gln Ala Asn Thr Ala Ala Met Val Ser Ala Ile Glu Lys
        195                 200                 205
Ser Leu Asn Arg Ala Leu Asn Asn Glu
    210                 215

<210> 36717
<211> 207
<212> PRT
<213> A.fumigatus

<400> 36717
Leu Gly Glu Trp Ile Cys Ser Leu Ala His Lys Gly Cys Leu Val Lys
1               5                   10                  15
Glu Val Ser His Ser Pro Arg Arg Leu Asp Ile Cys Ile Ala Phe Asn
            20                  25                  30
Ser Ala Leu Gly Ser Ser Leu Pro Ser Gly Ala Ser Ser Glu Ile Val
        35                  40                  45
Ser Ala Phe Asp Leu Asp Lys Asp His Val Pro Leu Val Leu Leu Asn
    50                  55                  60
Ser Val Tyr Leu Ala Gly Phe Ala Val Gly Pro Leu Val Phe Gly Pro
65                  70                  75                  80
Leu Ser Glu Tyr Leu Gly Arg Gln Pro Val Leu Ile Gly Thr Tyr Ile
                85                  90                  95
Gly Tyr Thr Ile Phe Thr Met Ala Cys Ala Leu Ala Pro Thr Tyr Ala
            100                 105                 110
Ser Leu Pro Ala Phe Arg Ser Leu Cys Gly Ile His Ala Ala Ala Pro
        115                 120                 125
Lys Ala Val Leu Gly Gly Leu Tyr Ser Asp Ile Tyr Asp Glu His Gly
    130                 135                 140
Glu Arg Gly Thr Ala Met Gly Phe Phe Met Leu Met Arg Thr Leu Gly
145                 150                 155                 160
Pro Gln Leu Ser Pro Ile Ile Ser Gly Tyr Ala Ala Leu Leu Ser Trp
                165                 170                 175
Arg Arg Val Phe Arg Val Ala Leu Val Ile Ala Gly Gly Gly Met Pro
            180                 185                 190
Val Val Leu Leu Leu Pro Glu Thr Tyr Gly Pro Val Leu Val Asn
```

195 200 205

<210> 36718
<211> 316
<212> PRT
<213> A.fumigatus

<400> 36718
Met Ile Glu Ala Ser Cys Leu Phe Ser Pro Leu Leu Leu Leu Ile Ser
1 5 10 15
Ser Ala Ile Ser Asn Asn Leu Met Met Lys Cys Leu Asp Pro Arg Val
20 25 30
Thr Leu Leu Ser Lys Asn Leu Phe Arg Ala Asn Ser Tyr Ala Met His
35 40 45
Ser Thr Thr Pro Val Glu Arg Asn Pro Ser Ser Thr Leu Arg Asp Arg
50 55 60
Val His Ile Leu Gly Leu Gly Ser Ile Gly Thr Phe Val Ala His Ser
65 70 75 80
Val Ser Glu Ile Pro Asn Gly Pro Ser Val Ile Leu Leu Leu His Arg
85 90 95
Arg Ser Leu Leu Asp His Tyr Arg Gln Asn Arg Asn Gln Ile Phe Phe
100 105 110
Glu Ser Arg His Gly Val His Gln Ser Ser Thr Gly Tyr Gly Leu Glu
115 120 125
Met Thr Gln Asp Asn Gln Trp Tyr Pro Val Ser Asp Glu Ser Pro Ser
130 135 140
Asp Cys Pro Ile Thr Ser His Ile Ser Asn Leu Ile Ile Cys Val Lys
145 150 155 160
Ala Thr Gln Thr Val Ser Ala Leu Arg Pro Leu Val His Arg Leu Asn
165 170 175
Ser Thr Ser Asn Ile Leu Phe Leu Gln Asn Gly Ser Gly Met Ile Glu
180 185 190
Glu Val Asp Ala His Leu Phe Gln Asp Pro Leu Thr Arg Pro Asn Tyr
195 200 205
Leu Ile Gly Val Ile Ser His Gly Val Thr Leu Asn Ser Pro Phe Asn
210 215 220
Ile Thr His Thr Gly Phe Ser Ala Thr Ser Ile Gly Pro Val Pro Arg
225 230 235 240
Asp Asp Gly Arg Tyr Ala Ala Ile Ser Asp Leu Arg Ser Asn Tyr Leu
245 250 255
Leu Gln Thr Leu Pro Leu Ser Pro Thr Leu Asn Leu Lys Ser Tyr Pro
260 265 270
Tyr Thr Glu Ile Leu Gln Val Gln Leu Glu Lys Leu Ala Val Asn Ala
275 280 285
Phe Cys Asn Pro Leu Cys Ala Leu Asn Asp Ala Lys Asn Glu Phe Leu
290 295 300
Phe Gln Arg Pro Arg His Ala Thr Gly Tyr Pro Asp
305 310 315

<210> 36719
<211> 146
<212> PRT
<213> A.fumigatus

<400> 36719
Asn Arg Thr Leu Thr Pro Lys Tyr Cys Lys Cys Asn Ser Arg Asn Ser

```
1               5                   10                  15
Gln Ser Met Leu Ser Ala Thr Arg Tyr Ala Arg Ser Met Met Pro Lys
            20                  25                  30
Met Ser Phe Ser Phe Ser Val Pro Asp Thr Arg Arg Ala Ile Leu Thr
        35                  40                  45
Glu Ile Ser Asn Val Val Leu Ala Leu Pro Glu Leu Lys Gly Val Gln
    50                  55                  60
Gly Leu Glu Glu Arg Phe Ser Val Ala Arg Leu Glu Lys Thr Val Asn
65                  70                  75                  80
Asp Ile Ile Ala Lys Thr Ala Asn Thr Thr Cys Ser Met Val Trp Asp
                85                  90                  95
Leu Arg Ala Gly Arg Glu Thr Ala Ile Gln Phe Ile Asn Gly Ser Trp
            100                 105                 110
Ser Arg Met Gly Lys Met Val Gly Val Asp Thr Pro Val Asn Asp Ala
        115                 120                 125
Leu Val Glu Gln Ile Gln Met Arg Gly Arg Glu Asn Leu Glu Met Ser
    130                 135                 140
Asp Gln
145
```

<210> 36720
<211> 118
<212> PRT
<213> A.fumigatus

<400> 36720

```
Pro Ser Leu Tyr Arg Met Val Val Ser Leu Phe Trp Leu Gly Trp Ala
1               5                   10                  15
Ser Leu Ser Val Val Asn Pro Ile Val Pro Met Val Ala Gly Phe Phe
            20                  25                  30
Phe Ala Ile Gly Phe Leu Phe Phe Ile Ala Met Leu Asn Tyr Leu Thr
        35                  40                  45
Asp Ala Tyr Gln Gln Asn Ser Ala Ser Ala Gln Ala Ala Ala Ser Thr
    50                  55                  60
Ile Arg Ser Ile Thr Ala Cys Ser Leu Pro Leu Ala Thr Lys Ser Met
65                  70                  75                  80
Tyr Gly Asn Leu Gly Ile His Trp Ala Asn Phe Ala Val Gly Ile Cys
                85                  90                  95
Cys Leu Gly Asp Gly Gly Asp Ser Val His Phe Arg Gln Ile Trp Arg
            100                 105                 110
Ile Val Lys Ala Glu Glu
        115
```

<210> 36721
<211> 67
<212> PRT
<213> A.fumigatus

<400> 36721

```
Phe Phe Pro Pro Tyr Cys Ser Ser Asn His Ser Val Asp Thr His Asp
1               5                   10                  15
Asn Leu Tyr Val Ile Leu Gly Asp Lys Asn Ser Phe Thr Leu Gln Thr
            20                  25                  30
Arg Ser Ser Ser Thr Ile Ser Ser Pro Leu Ile Ser Tyr Leu Ile Ala
        35                  40                  45
Thr Arg Glu Phe Pro Phe Pro Thr Arg Thr Leu His Ile Thr Val Leu
```

```
    50                  55                  60
Phe Pro Ala
65

<210> 36722
<211> 62
<212> PRT
<213> A.fumigatus

<400> 36722
Ser Ala Cys Tyr Arg Asp Asn Thr Glu Arg Gly Tyr Phe Thr Pro His
1               5                  10                  15
Lys Thr Gly Ile Asn Ser Phe Leu Leu Ile Val Pro Gln Thr Ile Leu
            20                  25                  30
Leu Thr Pro Met Thr Thr Tyr Met Leu Phe Trp Glu Ile Lys Thr Leu
        35                  40                  45
Ser His Phe Lys Pro Ala His Pro Leu Pro Phe Pro Leu Pro
    50                  55                  60

<210> 36723
<211> 191
<212> PRT
<213> A.fumigatus

<400> 36723
Ser Pro Glu Ser Val Lys Leu Phe Cys Asn Pro Ala Asn His Phe Gln
1               5                  10                  15
Val Asp Asp Glu Val Gly Phe Ile Arg Phe Tyr His Ser Leu Ser Ser
            20                  25                  30
Asp Gly Asn Asp Glu Thr Ile Arg Val Phe Asp Arg Gly Asp Trp Tyr
        35                  40                  45
Ser Ala His Gly Ala Glu Ala Glu Phe Ile Ala Arg Thr Val Tyr Lys
    50                  55                  60
Thr Thr Ser Val Leu Arg Asn Leu Gly Arg Ser Glu Thr Gly Gly Leu
65                  70                  75                  80
Pro Ser Val Thr Met Ser Val Thr Val Phe Arg Asn Phe Leu Arg Glu
                85                  90                  95
Ala Leu Phe Lys Leu Asn Lys Arg Val Glu Ile Trp Gly Ser Asn Gly
            100                 105                 110
Ala Gly Arg Gly Gln Trp Lys Leu Met Lys Gln Ala Ser Pro Gly Asn
        115                 120                 125
Leu Gln Asp Val Glu Glu Glu Leu Gly Ser Val Gly Gly Leu Ala Met
    130                 135                 140
Glu Ser Ala Pro Val Ile Leu Ala Val Lys Ile Ser Ala Lys Ala Ser
145                 150                 155                 160
Glu Ala Arg Gly Val Gly Val Cys Leu Arg Gly Cys Asp Cys Pro Gly
                165                 170                 175
Thr Gly Arg Lys Arg Val Pro Gly Gln Arg Cys Leu Phe Glu Leu
            180                 185                 190

<210> 36724
<211> 525
<212> PRT
<213> A.fumigatus

<400> 36724
```

```
Pro Ser Ala Ile Ser Ile Val Ser Leu Ala Arg Pro Ile His Arg Ala
1               5                  10                  15
Ile Phe Asn Val Lys Thr Pro His Leu Pro Leu Val Val Val Tyr Tyr
            20                  25                  30
Phe Ala Tyr Leu Pro Tyr Leu Pro Ile Asn His Ile Cys Ser Tyr Leu
        35                  40                  45
Thr Ile Ile Ser Phe Asn Pro Thr Ile Ser Thr Lys Glu Thr Ala Met
    50                  55                  60
Pro Arg Thr Ser Arg Gln Thr Arg Leu Pro Arg Gly Gln Val Gly Ile
65                  70                  75                  80
Gln Ser Phe Ala Arg Ala Thr Lys Pro Ser Cys Ser Thr Leu Gln Asp
                85                  90                  95
Thr Lys Lys Pro Ala Ala Ala Gln Leu Pro Val Ser Pro Ser Lys Lys
            100                 105                 110
Arg Lys Leu Asn Glu Leu Glu Asn Val Asp Cys Ala Thr Gly Glu Pro
        115                 120                 125
Arg Gln Thr Thr Ile Pro Glu Glu Ala Gly Thr Pro Ser Lys Thr Leu
    130                 135                 140
Arg Phe Ser Gln Leu Cys Val Ser Thr Pro Arg Ser Gly His Tyr Ala
145                 150                 155                 160
Cys Ser Lys Thr Glu Ala Ser Pro Ala Pro Ala Pro Pro Ser Ser Pro
                165                 170                 175
Ser Lys Arg Gly Gly Ala Arg Val Lys Arg Ser Asn Ser Leu Ile Val
            180                 185                 190
Val Glu Arg Pro Ala Cys Val Glu Glu Phe Leu Ser Leu His Ser Ala
        195                 200                 205
Phe Leu Lys Ala Leu Ala Ile His Ser Ala His Asn Gly Ala Thr Thr
    210                 215                 220
Ala Ala Asp Leu Arg Glu Phe Leu Gln Ala Val Glu Arg Met Trp Lys
225                 230                 235                 240
Lys Arg Lys Val Val Val Lys Asp Leu Gln Arg Leu Ile Trp Ala Trp
                245                 250                 255
Glu Gln Gly Asp Glu Gly Asn Gly Pro Arg Tyr Arg Leu Ala Asn Tyr
            260                 265                 270
Gly Leu Gly Lys Val Cys Leu Glu Arg Ala Pro Val Asn Arg Glu Arg
        275                 280                 285
Leu Asp Arg Phe Asp Glu Lys Glu Leu Gln Asp Arg Phe Glu Arg Val
    290                 295                 300
Val Asp Leu Leu Trp Glu Lys Ala Val Asp Ala Ala Asp Gly Asp Glu
305                 310                 315                 320
Ser Gln Val Asp Phe Phe Glu Thr Leu Gly Val Ser Pro Val His Glu
                325                 330                 335
Ser Leu Thr Pro Phe Thr Thr Phe Arg Lys Gly Gln Gln Arg Leu Gln
            340                 345                 350
Asp Leu Lys Gly Gly Val Ile Lys Leu Lys Thr Glu Lys Leu Arg Ala
        355                 360                 365
Asp Ser Gln Pro Glu Thr Pro Ala Lys Pro Leu Asp Ala Thr Thr Thr
    370                 375                 380
Arg Arg Lys Gly Leu Leu Glu Arg Ile Lys Ser Lys Glu Leu Leu Gln
385                 390                 395                 400
Ser Lys Leu Pro Pro Pro Pro Ser Lys Glu Thr Leu Leu Arg Arg Ala
                405                 410                 415
Ala Ala Glu Arg Ala Glu Glu Val Val Ala Val Leu Ala Leu Leu Arg
            420                 425                 430
Pro Val Gly Tyr Val Gly Ser Gly Pro Lys Ala Val Leu Ala Ala Gln
        435                 440                 445
```

```
Lys Lys Pro Phe Gln Leu Glu Met Ile Val Gln Asn Val Gln Asp Ser
    450                 455                 460
Leu Arg Asn Pro Ile Ser Ser Arg Glu Val Glu Met Cys Val Glu Leu
465                 470                 475                 480
Leu Ala Arg Pro Asp Ile Ala Gly Gln Trp Ile Glu Val Val Ala Val
                485                 490                 495
Asn Gln Ile Lys Ser Val Val Leu Lys Ser Cys Ala Ser Val Tyr Pro
            500                 505                 510
Lys Glu Ile Gly Ala Lys Val Ser Lys Leu Glu Leu Asp
        515                 520                 525

<210> 36725
<211> 68
<212> PRT
<213> A.fumigatus

<400> 36725
Met Met Val Leu His Met Thr Leu Arg Ser Leu Ser Phe Trp Met Phe
1               5                   10                  15
Cys Val Val Phe Asp Thr Thr Gly Ala Asn Leu His Val Arg His Tyr
            20                  25                  30
Phe Ala Leu Ser Gly Ser Ile Met Tyr Ile Ser Ala Ala Phe Ile Thr
        35                  40                  45
Tyr Ile Tyr Ile Leu Lys Ser Thr Thr Ile Met Glu Asn Ile Asn Ser
    50                  55                  60
Gly Gln Asn Cys
65

<210> 36726
<211> 106
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (53),(58),(62),(70),(72),(79),(91),(92),(95),(96),(101),(102),(104)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36726
Arg Phe Gln Pro Arg Arg Leu Arg Arg Glu Val Ser Gly Cys Val Tyr
1               5                   10                  15
Ala Asp Ala Thr Val Arg Glu Leu Gly Val Ser Glu Phe Leu Asp Asn
            20                  25                  30
Asp Val Tyr Ser Asn Phe Glu Ser Leu Ile Ile Gln Leu Gly Val Lys
        35                  40                  45
Lys Cys Leu Val Xaa Met Asp Thr Asn Xaa Lys Asp Val Xaa Leu Gly
    50                  55                  60
Lys Ile Leu Ala Ile Xaa Asp Xaa Cys Gly Ile Ala Ile Ser Xaa Lys
65                  70                  75                  80
Thr Val Ala Asp Phe Gly Gly Glu Gly Tyr Xaa Xaa Gly Ser Xaa Xaa
                85                  90                  95
Ala Ala Gln Gly Xaa Xaa Val Xaa Arg Pro
            100                 105

<210> 36727
<211> 120
```

<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (105)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36727

```
Gln Asn Val Met Ser Leu Ile Asp Pro Ser Arg Thr Thr Thr Pro Arg
1               5                  10                  15
Met Arg Gln Pro Thr Ile Pro Thr Gly Leu Lys Leu Gly Ser Phe Ser
            20                  25                  30
Val Phe Asn Ala Ser Ser Gly Thr Ala Leu Ala Asp Val Thr Pro Glu
        35                  40                  45
Asp Asp Ser Ile His Val Tyr Tyr Asp Gly Ser Asn Asp Ser Ile Leu
    50                  55                  60
Gly Lys Val Asp Asp Ser Asn Ser Gly Trp Tyr Asp Ser Ala Phe Ser
65                  70                  75                  80
Gln Ser Gly Met Thr Gly Ser Gln Val Ala Ala Ile Ile Trp Val Leu
                85                  90                  95
Thr Ala Gly Trp Ile Tyr Val Cys Xaa Ser Ser Ser His Asn Leu Cys
            100                 105                 110
Gln Arg Cys Arg Ser Ile Ser Met
        115                 120
```

<210> 36728
<211> 248
<212> PRT
<213> A.fumigatus

<400> 36728

```
Leu Gln Cys Lys Ser Val Val Asn Lys Ala Arg Thr Lys Pro His Leu
1               5                  10                  15
Lys Val Met Cys Gly Phe Ser Arg Arg Phe Asp Glu Ser Tyr Arg Asp
            20                  25                  30
Val Tyr Asp Lys Ile Ser Gln Gly Leu Ile Gly Lys Pro Ser Ile Leu
        35                  40                  45
Arg Ser Gln Thr Cys Asp Lys Tyr Asp Pro Ser Gly Phe Tyr Val Ala
    50                  55                  60
Tyr Ser Ala Trp Ser Gly Gly Val Phe Val Asp Met Ser Val His Asp
65                  70                  75                  80
Ile Asp Leu Thr Leu Trp Phe Phe Gly Asp Asp Val Val Pro Lys Thr
                85                  90                  95
Ile Ser Ala Tyr Gly Ile Thr Ala Val Gln Pro Glu Leu Lys Lys Phe
            100                 105                 110
Asn Asp Tyr Asp Asn Ala Val Gly Ile Val Glu Phe His Asn Gly Lys
        115                 120                 125
Ile Ala Tyr Tyr Tyr Cys Ser Arg Met Met Ala His Gly Gln Glu Asp
    130                 135                 140
Thr Thr Glu Ile Ile Gly Thr Glu Gly Lys Leu Ser Val Asn Ser Asn
145                 150                 155                 160
Pro Gln Arg Asn Leu Val Asn Phe Tyr His Ser Gly Gly Ile Thr Arg
                165                 170                 175
Glu Ala Pro Ser Asn Phe Ile Gly Arg Phe Gly Pro Ala Phe Val Thr
            180                 185                 190
```

```
Glu Ala Asn Glu Phe Thr Ala Ala Cys Leu Asp Asn Thr Pro Leu Pro
        195                 200                 205
Met Lys Leu Ser Asn Ala Val Lys Ala Val Glu Ile Gly Ala Tyr Leu
    210                 215                 220
Gln Glu Ala Leu Val Thr Gly Lys Gln Ile His Phe Asp Glu Ile Gly
225                 230                 235                 240
Arg Arg Val Glu Arg Ala Gln Ile
                245
```

<210> 36729
<211> 149
<212> PRT
<213> A.fumigatus

<400> 36729

```
Ile Leu Ile Pro Ile Tyr Asn Ile Phe Pro Thr Cys Leu Gln Tyr Phe
1               5                   10                  15
Lys Pro Asp Asn Ser Thr Gln Pro Asp Ile Val Asp Gly Met His Leu
            20                  25                  30
Tyr Ser Ile Thr Pro Trp Leu Leu Thr Ser Leu Cys Thr Leu Val Ser
        35                  40                  45
Pro Leu Tyr Thr Asp Thr Gly Gln Arg Gly Arg Val Ile His Gln Pro
    50                  55                  60
Ala Leu Pro Pro Ser Tyr Pro Leu Ala Val Arg Asn Pro Tyr Leu Ser
65                  70                  75                  80
Ala Trp Leu Pro Ser His Arg Val Gln Ile Leu Pro Tyr Ala Glu Pro
                85                  90                  95
Gln Phe Trp Ala Gly Gln Asp Leu Gly Trp Ser Ile Met Val Arg Val
            100                 105                 110
Asp Asp Gln Thr Tyr Ser Leu Met Gly Val Lys Asp Pro Gly Asn Asp
        115                 120                 125
Val Gln Pro Ala Val Val Gln Gly Ala Glu Tyr Thr Ala Thr His Ser
    130                 135                 140
Val Phe Thr Ala Ser
145
```

<210> 36730
<211> 301
<212> PRT
<213> A.fumigatus

<400> 36730

```
Val Ala Trp Ile Tyr Cys Ser Asp Arg Ala Val Val Leu Ile Leu Lys
1               5                   10                  15
Arg Ser Arg Val Ser Ala Ala Pro Ser Ser Ala Gly Ser Lys Ser Cys
            20                  25                  30
Asp Thr Val Asp Leu Gly Tyr Gln Cys Ser Pro Ala Thr Ser His Leu
        35                  40                  45
Trp Gly Gln Tyr Ser Pro Phe Phe Ser Leu Glu Asp Glu Leu Ser Val
    50                  55                  60
Ser Ser Lys Leu Pro Lys Asp Cys Arg Ile Thr Leu Val Gln Val Leu
65                  70                  75                  80
Ser Arg His Gly Ala Arg Tyr Pro Thr Ser Ser Lys Ser Lys Lys Tyr
                85                  90                  95
Lys Lys Leu Val Thr Ala Ile Gln Ala Asn Ala Thr Asp Phe Lys Gly
            100                 105                 110
```

```
Lys Phe Ala Phe Leu Lys Thr Tyr Asn Tyr Thr Leu Gly Ala Asp Asp
        115                 120                 125
Leu Thr Pro Phe Gly Glu Gln Gln Leu Val Asn Ser Gly Ile Lys Phe
    130                 135                 140
Tyr Gln Arg Tyr Lys Ala Leu Ala Arg Ser Val Val Pro Phe Ile Arg
145                 150                 155                 160
Ala Ser Gly Ser Asp Arg Val Ile Ala Ser Gly Glu Lys Phe Ile Glu
                165                 170                 175
Gly Phe Gln Gln Ala Lys Leu Ala Asp Pro Gly Ala Thr Asn Arg Ala
            180                 185                 190
Ala Pro Ala Ile Ser Val Ile Ile Pro Glu Ser Glu Thr Phe Asn Asn
        195                 200                 205
Thr Leu Asp His Gly Val Cys Thr Lys Phe Glu Ala Ser Gln Leu Gly
    210                 215                 220
Asp Glu Val Ala Ala Asn Phe Thr Ala Leu Phe Ala Pro Asp Ile Arg
225                 230                 235                 240
Ala Arg Ala Glu Lys His Leu Pro Gly Val Thr Leu Thr Asp Glu Asp
                245                 250                 255
Val Val Ser Leu Met Asp Met Cys Ser Phe Asp Thr Val Ala Arg Thr
            260                 265                 270
Ser Asp Ala Ser Gln Leu Ser Pro Phe Cys Gln Leu Phe Thr His Asn
        275                 280                 285
Glu Trp Lys Lys Tyr Asn Tyr Leu Gln Ser Leu Gly Lys
    290                 295                 300
```

<210> 36731
<211> 76
<212> PRT
<213> A.fumigatus

```
<400> 36731
Tyr Gly Tyr Gly Ala Gly Asn Pro Leu Gly Pro Ala Gln Gly Ile Gly
1               5                   10                  15
Phe Thr Asn Glu Leu Ile Ala Arg Leu Thr Arg Ser Pro Val Gln Asp
            20                  25                  30
His Thr Ser Thr Asn Ser Thr Leu Val Ser Asn Pro Ala Thr Phe Pro
        35                  40                  45
Val Glu Arg Tyr His Val Arg Arg Leu Phe Thr Arg Gln Gln His Gly
    50                  55                  60
Phe His Leu Leu Cys Ile Gly Pro Val Gln Arg His
65                  70                  75
```

<210> 36732
<211> 125
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (38)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 36732
Ser Pro Thr Arg Pro Pro Ser Pro Leu Asn Ala Thr Met Tyr Val Asp
1               5                   10                  15
Phe Ser His Asp Asn Ser Met Val Ser Ile Phe Phe Ala Leu Gly Leu
```

```
            20                  25                  30
Tyr Asn Gly Thr Glu Xaa Leu Ser Arg Thr Ser Val Glu Ser Ala Lys
        35                  40                  45
Glu Leu Asp Gly Tyr Ser Ala Ser Trp Val Val Pro Phe Gly Ala Arg
    50                  55                  60
Ala Tyr Phe Glu Thr Met Gln Cys Lys Ser Glu Lys Glu Pro Leu Val
65                  70                  75                  80
Arg Ala Leu Ile Asn Asp Arg Val Val Pro Leu His Gly Cys Asp Val
                85                  90                  95
Asp Lys Leu Gly Arg Cys Lys Leu Asn Asp Phe Val Lys Gly Leu Ser
            100                 105                 110
Trp Ala Arg Ser Gly Gly Asn Trp Gly Glu Cys Phe Ser
        115                 120                 125
```

<210> 36733
<211> 199
<212> PRT
<213> A.fumigatus

<400> 36733

```
Asn Gly Ile His Val Phe Pro Cys Asn Asp Leu Leu Ser Thr Gly Ala
1               5                   10                  15
Leu Leu Arg Ser Asn Arg Ala Pro Ile Ser Gly Gly Gln Tyr His Trp
            20                  25                  30
Val Ser Glu Phe Ala Pro Pro Ser Cys Gln Cys Ile Leu Ser Tyr Ile
        35                  40                  45
Thr Gly Trp Val Cys Val Leu Gly Trp His Thr Gly Ile Ala Gly Cys
    50                  55                  60
Cys Tyr Thr Val Ala Asn Met Met Val Gly Val Val Ala Ile Asn Tyr
65                  70                  75                  80
Pro Asp Thr Tyr Val Tyr Lys Pro Trp His Val Thr Leu Leu Val Ile
                85                  90                  95
Ala Val Ala Leu Val Ala Leu Leu Phe Asn Thr Leu Leu Ala Gln Glu
            100                 105                 110
Leu Pro Leu Ile Glu Gly Ile Ile Leu Val Ile His Cys Phe Gly Phe
        115                 120                 125
Phe Gly Ile Leu Ile Pro Leu Trp Val Leu Ser Pro Arg Pro Thr Ala
    130                 135                 140
Ser Glu Val Ser Gly Pro Ile Gln Asp Arg Gly Gly Trp Gly Asn Asn
145                 150                 155                 160
Gly Leu Ala Cys Leu Val Gly Leu Val Gly Ser Ile Tyr Ala Leu Ile
                165                 170                 175
Gly Ala Phe Lys Tyr Pro Lys Thr Arg Glu Val Cys His Leu Leu Thr
            180                 185                 190
Ile Ser Thr Ile Gln Arg Pro
        195
```

<210> 36734
<211> 204
<212> PRT
<213> A.fumigatus

<400> 36734

```
Trp Asp Asp Cys Gly His His Gly His Ala Val Leu Arg Ser His Gln
1               5                   10                  15
Gln Arg Cys His His Ile Ser Pro Gly Leu Cys Phe Cys Thr Arg Gln
```

```
            20                  25                  30
Trp Ala Ser Ile Leu Glu Phe Leu Val Asn Gly Arg Cys Phe Pro Gln
        35                  40                  45
Arg Val Val Asp Gly Val Asp Asp Tyr Ser Gln Val Asn Pro Thr Phe
    50                  55                  60
Ile Val Pro Leu Asn Ala Leu Cys Met Ser Leu Ala Ile Val Ser Leu
65                  70                  75                  80
Leu Ser Leu Thr Asn Ile Gly Ser Ser Val Ala Phe Asn Ala Ile Met
                85                  90                  95
Ser Leu Gly Thr Ala Ala Leu His Ser Ser Tyr Ile Ile Ser Ile Ala
            100                 105                 110
Cys Val Arg Leu Arg Arg Trp His Asn Gln Pro Leu Pro Pro Ala Arg
        115                 120                 125
Trp Arg Met Gly Arg Phe Thr Pro Phe Val Asp Thr Val Ser Ile Leu
    130                 135                 140
Val Leu Ile Ile Ile Trp Val Phe Ser Phe Phe Pro Leu Thr Glu Lys
145                 150                 155                 160
Val Asp Ser Thr Thr Met Asn Trp Ser Val Val Ile Phe Gly Gly Val
                165                 170                 175
Ile Leu Leu Ser Leu Val Tyr Tyr Gln Leu His Ala Lys Arg Val Tyr
            180                 185                 190
Lys Gly Pro Val Thr Arg Val Asn Met Met Ala Gly
        195                 200
```

<210> 36735
<211> 82
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (35)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36735

```
Lys Tyr Val His Val Thr Leu Leu Lys Trp Leu Val Trp Leu Ile Tyr
1               5                   10                  15
Asn Asp Ser Val Thr Ser Gly Gly Gln Cys Ala Leu Asp Ala Ser Asp
            20                  25                  30
Ser Leu Xaa Ser Val Gly Met Thr Pro Ala Leu Leu Leu Phe Gly Val
        35                  40                  45
Thr Val Gly Asn His Leu Gln Cys Val Ala Ser Arg Glu Thr His His
    50                  55                  60
Gln Pro Lys Gly Ala Ser Tyr His Ser Glu His Arg Ser Ile Leu Trp
65                  70                  75                  80
His Val
```

<210> 36736
<211> 67
<212> PRT
<213> A.fumigatus

<400> 36736

```
Asp Gly Arg Lys His Lys His Asp Pro Cys Lys Ala Gln Leu Asp Arg
1               5                   10                  15
```

```
Met Thr Ser Thr Ile Pro Phe Leu Ser Thr Ile Asp Cys Arg Glu Asn
            20                  25                  30
Phe Cys Thr Met Val Val Asn Gln Phe Cys Thr Asp Thr Cys Phe Leu
        35                  40                  45
Phe Ser Leu Phe Asn Met His Asn Tyr Asn Ser Arg Phe Phe Cys Leu
    50                  55                  60
Leu Val Asp
65
```

<210> 36737
<211> 138
<212> PRT
<213> A.fumigatus

<400> 36737

```
Cys Asp Glu Leu Ala Glu Glu Ile Arg Asp Ala Ser Arg Val Leu Pro
1               5                   10                  15
Leu Gly Arg Phe Trp Thr Leu Ile Leu Asn Gly Cys Thr Gly Leu Val
            20                  25                  30
Arg Ile Ile Thr Ile Ala Leu Cys Val Gly Asp Ile Asp His Val Val
        35                  40                  45
Glu Ser Gln Thr Gly Leu Ala Leu Ile Gln Val Phe Leu Asn Ser Thr
    50                  55                  60
Gly Ser Val Arg Ala Ala Ser Gly Met Thr Val Val Ile Met Ala Met
65                  70                  75                  80
Gln Phe Cys Ala Ala Ile Ser Asn Val Ala Thr Thr Ser Arg Gln Val
                85                  90                  95
Tyr Ala Phe Ala Arg Asp Asn Gly Leu Pro Phe Ser Asn Phe Trp Ser
            100                 105                 110
Thr Val Gly Val Phe Leu Ser Glu Trp Trp Met Ala Leu Met Thr Thr
        115                 120                 125
Arg Arg Leu Thr Arg Leu Ser Ser Ser Leu
    130                 135
```

<210> 36738
<211> 451
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (16)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36738

```
Cys Asp Leu Arg Arg Pro Val Cys Ser Arg Cys Ile Arg Phe Pro Xaa
1               5                   10                  15
Glu Cys Arg Tyr Asp Ser Ser Phe Val Ala Val Arg Ser His Cys Arg
            20                  25                  30
Lys Ser Ser Pro Val Arg Gly Lys Pro Arg Asn Pro Ser Pro Ala Lys
        35                  40                  45
Arg Ser Val Ile Pro Leu Arg Ala Ser Leu Asn Pro Leu Ala Cys Leu
    50                  55                  60
Thr Ser Pro Asp Ser His Phe Leu Met His His Phe Val Thr Gln Thr
65                  70                  75                  80
Ile Arg Val Leu Phe Pro Leu Ala Pro Pro Val Phe Gly Gln Thr Leu
```

```
                85                  90                  95
Val Ala Thr Ala Met Glu Thr Pro His Leu Leu His Ala Leu Leu Ala
            100                 105                 110
Ala Ser Cys Ser His Tyr Ala Arg Leu Val Gln Lys Pro Ser Ala His
        115                 120                 125
Gln Leu Thr Val Leu Lys Phe Thr Asn Leu Ala Val Thr Gly Leu Arg
    130                 135                 140
Ala Ala Leu Ala Asp Pro Thr Glu Thr Leu Arg Pro Glu Thr Ala Met
145                 150                 155                 160
Thr Ala Met Val Leu Cys Thr Asn Asp Val Cys Asn Gly Asn Ala Arg
                165                 170                 175
Thr Trp Lys Val His Leu Ser Gly Val Thr Gln Leu Leu Thr Ala Leu
            180                 185                 190
Leu Ala Arg Gln Lys Thr Ala Asp Gly Asp Pro Asp Pro Phe Phe Leu
        195                 200                 205
Cys Leu Leu Lys Trp Phe Ala Ala Leu Asp Ile Leu Ala Gly Leu Ser
    210                 215                 220
Gly Thr His Glu Gly Cys Val Asn Asp Gly Gln Tyr Trp Asn Leu Thr
225                 230                 235                 240
Arg Asn Pro Asn Cys Gly Asn Gly His Val Asp Glu Ile Cys Gly Tyr
                245                 250                 255
Ser Thr Gln Leu Met Pro Leu Leu Ala Arg Ile Gly Gln Leu Ala Arg
            260                 265                 270
Arg Asn Val His Glu Gln Ser Ile Phe Glu Thr Tyr Thr Glu Pro Ser
        275                 280                 285
Ser Ala Leu Ser Glu Glu Leu Thr His Asp Ala Gln Asp Leu Glu Thr
    290                 295                 300
Arg Ile Leu Ser Ile Ala Asn Gln Val Pro Ser Ala Ala Thr Leu Ala
305                 310                 315                 320
Phe His Asp Gln Val Leu Ala Ser Glu Leu His Asn Thr His Leu Ala
                325                 330                 335
Phe Ile His Ser Ala Leu Leu His Leu Tyr Arg Arg Val Glu Leu Leu
            340                 345                 350
Pro Lys Ser His Pro Lys Val Arg Ala Gln Val Thr Ala Ile Leu Tyr
        355                 360                 365
Asn Val Gln Ala Ile Lys Pro Phe Ser Pro Ala Asn Ala Leu Ile Leu
    370                 375                 380
Trp Pro Ile Phe Ser Ala Gly Cys Glu Thr Asp Asp Leu Gln Gly Arg
385                 390                 395                 400
Gln Ala Ile Gln Thr Arg Met Ala Asn Met Gln Thr Met Gly Leu Gly
                405                 410                 415
Asn Phe Thr Arg Ala Arg Asp Ala Leu Ala Arg Tyr Trp Glu Ser Gly
            420                 425                 430
Ala Ser Ser Arg Trp Asp Val Tyr Phe Ala Gln Ser Gly Leu Glu Leu
        435                 440                 445
Val Leu Phe
    450

<210> 36739
<211> 79
<212> PRT
<213> A.fumigatus

<400> 36739
Ile Ser Gly His Leu Val Leu Gly Ala Ser Phe Ala Glu Asn Phe Gln
1               5                   10                  15
```

```
Ser Lys Lys Ala Asp Asp Ser Thr Thr Ser Leu Glu Tyr Glu Pro His
            20                  25                  30
Ile Pro Thr Pro Val Arg Leu Phe Asp Lys Asp Ser Ser Arg Leu Gly
        35                  40                  45
Arg Thr Ser Gln Glu Ala Asn Thr Ala His Arg Met Thr Leu Ile Leu
    50                  55                  60
Glu Lys Gly Tyr Cys Ser Cys Thr Gly Arg Ile Ile Leu Met Ser
65                  70                  75
```

<210> 36740
<211> 308
<212> PRT
<213> A.fumigatus

<400> 36740

```
Arg Arg Glu Leu Arg Gln Thr Ala Arg Pro Ala Ala Leu Pro Glu Pro
1               5                   10                  15
Leu Asp Ala Gly Gln Pro Ser Glu Ala His Pro Ser Arg Asp Arg Arg
            20                  25                  30
Arg Ser Leu Leu Glu Ser Ala Val Ala Cys Gln Leu Arg Ala Gln Pro
        35                  40                  45
Leu Ala Leu Phe Pro Leu Ser Gly Arg Pro Leu Arg His His Pro Gly
    50                  55                  60
Arg His Gln Gln Gly Leu Gln Tyr Pro Arg Ser Pro Arg His Ser Gln
65                  70                  75                  80
Pro Thr Arg Thr Ala Arg Pro Gln Ile Leu Arg Lys Thr Gly Arg Leu
                85                  90                  95
Asp Gly Pro Ala Thr Pro Arg Leu Pro Leu His Leu Thr Ala Thr Ser
            100                 105                 110
Thr Arg Tyr Ser Ala Pro Ser Arg Arg Arg Leu Tyr Ala Arg Thr Arg
        115                 120                 125
Leu Pro Arg Asp Arg Leu Leu Gln Arg Ser His His His Gln Pro Thr
    130                 135                 140
Leu Ser Gln Pro Phe Lys Pro Gln Val Leu Gln Arg Ile Leu Leu Pro
145                 150                 155                 160
Phe Arg Leu Pro Arg Arg Thr Gln Ser Lys Ile Tyr Leu Pro Leu Asn
                165                 170                 175
Val His His Tyr His Tyr His Gln Arg Thr Gln Leu Arg Ala Gln Arg
            180                 185                 190
Gln Gln Arg Gln His Gln Arg His His Lys Gln Gln His His Arg Gln
        195                 200                 205
Gln Pro Pro His Lys Pro Leu Arg Leu Leu Ser Pro Arg Arg Leu His
    210                 215                 220
Pro His Leu His Pro Pro Arg Asp Pro Arg Pro Arg Leu Ala Pro Pro
225                 230                 235                 240
Leu Leu Pro Leu Val Glu His Pro Pro Leu Pro Ser Ala Ser Tyr His
                245                 250                 255
Arg Pro Phe Ala Gly Phe Gly Val Val Tyr Pro Pro Ser Arg Asp Arg
            260                 265                 270
Arg Pro Arg His Arg Gly Arg His Pro Leu His Gln Glu Val Pro Pro
        275                 280                 285
Leu Ala Ala Cys Tyr Gly Gly Gly Leu Cys Arg Glu Ser Glu Gly Val
    290                 295                 300
His Pro Leu Arg
305
```

<210> 36741
<211> 874
<212> PRT
<213> A.fumigatus

<400> 36741
Ser Leu Ser Leu Asp Val Ser Ala Ser Ala Met Glu Asp Phe Ser Asp
1 5 10 15
Val Tyr Gln Ser Thr Glu Leu Asn Pro Ser Ala Glu Ser Asn Ser Val
20 25 30
Ser Phe Glu Pro Asp Gln Pro Val Pro Asn Gly Leu Pro Ser Ala Leu
35 40 45
His Trp Gln Gly Leu Ser Leu Ser Pro Gly Thr Pro Gln Ser Gly Tyr
50 55 60
Tyr Leu Tyr Pro Asn Gln Tyr Asp Arg Pro Ala Phe Pro His Gln Ser
65 70 75 80
Ser Thr Ser Ser Ser Gly Arg Asp Gly Thr Ala Ala Gly Val Gly Pro
85 90 95
Gly Val Ala Lys Val Ala Ile Pro Arg Ala Ala Pro Tyr Ser Ile His
100 105 110
Ser Gln Arg Arg Arg Ser Ala Arg Ala Cys Glu Pro Cys Arg Gln Arg
115 120 125
Lys Ile Lys Cys Asp Gly Asn Lys Pro Val Cys Arg Gln Cys His Glu
130 135 140
His His Val Thr Cys Ser Tyr Leu Glu Val Lys Arg Val Arg Asp Gln
145 150 155 160
Lys Gln Leu Glu Ile Leu Ser His Gln Val Lys Ala Tyr Glu Ser Leu
165 170 175
Leu Arg Asp Leu Glu Met Glu Val Asp Ala Asn Ala Ala Arg Arg Ile
180 185 190
Arg Arg Thr Leu Lys Thr Ser Ser Arg Gly Asp Lys Glu Asp Gly Ala
195 200 205
Leu Ser Asp Ser Ser Ser Ser Ser Ala Gly Ser Leu Asn Ala Ile Asp
210 215 220
Leu Val Glu Glu Asp Leu Asn Arg Ser His Arg Thr Arg Ala Ser Gly
225 230 235 240
Tyr Phe Gly Lys Asn Ser Glu Val Ser Trp Met Gln Lys Leu Glu Asp
245 250 255
Glu Ala Glu Asn Arg Ser Arg Met Phe Asp Gly Asn Phe Glu Thr Pro
260 265 270
Gly Leu Glu Glu Gln Gln His Leu Gln Gln Lys Asn Asp Val Ser Ile
275 280 285
Ala Thr Met Ser Tyr His Leu Asp Asp Leu Ser Ile Pro Leu Met Asp
290 295 300
Asp Val Asp Pro Tyr Asp Leu Pro Pro Lys Glu Leu Ala Asp Arg Phe
305 310 315 320
Phe Ala Ala Tyr Met Glu Ser Val His Pro Gly Phe Glu Val Ile Arg
325 330 335
Lys Thr Ile Phe Ala Thr Gln Tyr Arg Gln Phe Phe Ser Gln Pro Ser
340 345 350
Lys Pro Pro Arg Arg Trp Leu Ala Ile Leu Asn Met Thr Phe Ala Leu
355 360 365
Gly Cys Arg Tyr Cys Leu Leu Leu Asn Asp Thr Ala Asn Ile Gly Asn
370 375 380
Asp Glu Asp Trp Asp Asp Leu Val Tyr Phe Asn Arg Ala Arg Lys Leu
385 390 395 400

```
Cys Leu Gly Glu Thr Ala Leu Phe Asp His Thr Asp Leu Gln Gln Ile
                405                 410                 415
Gln Val Glu Ile Leu Val Ala Leu Tyr Leu Leu Thr Leu Gly Gln Ile
            420                 425                 430
Asn Arg Ala Ser Asn Phe Ala Ser Met Ala Phe Arg Ser Ala Leu Ser
        435                 440                 445
Leu Gly Ile Asn Leu Arg Phe Glu Asp Asp Arg Thr His His Ala Ser
    450                 455                 460
Lys Glu Ala Arg Ser Arg Leu Trp Trp Ser Ile Tyr Val Val Glu His
465                 470                 475                 480
Leu Leu Thr Ala Thr Thr Gly Arg Ala Ser Cys Val Ser Glu Ser Leu
                485                 490                 495
Ser Ala Ala Pro Leu Pro Val Pro Phe Glu Glu Glu Asn Phe Asp Lys
            500                 505                 510
Pro His Ala Leu Gln Leu Phe Gln Asn Pro Ser Met Arg Ala Ser His
        515                 520                 525
Leu Lys Leu Thr Leu Leu Glu Thr Asp Glu Glu Ala Tyr Ser Lys Ala
    530                 535                 540
Gln Trp Leu Ala Ser Cys Glu Pro Ser Pro Ser Leu Phe Phe His Cys
545                 550                 555                 560
Leu Val Asp Leu Cys Ala Ile Thr Gln Ala Val Ile Asn Lys Val Tyr
                565                 570                 575
Ser Ile Gln Gly Leu Arg Asp Thr Ala Ser Gln Leu Glu Gln Arg Val
            580                 585                 590
Arg Lys Tyr Ser Ala Lys Leu Asp Ala Trp Met Ala Gln Leu Pro Pro
        595                 600                 605
Val Tyr Arg Phe Thr Ser Gln Pro His Pro His Asp Thr Leu His Leu
    610                 615                 620
Pro Asp Asp Gly Phe Met Arg Glu Arg Val Cys Leu Ala Ile Ala Tyr
625                 630                 635                 640
Tyr Ser Ala Arg Ile Thr Ile Ser Arg Pro Cys Leu Ser Arg Ser Asn
                645                 650                 655
Pro Lys Ser Ser Lys Glu Ser Ser Ser Pro Ser Ala Ser Pro Asp Ala
            660                 665                 670
Pro Asn Pro Lys Ser Thr Ser Arg Ser Met Ser Thr Thr Thr Thr Thr
        675                 680                 685
Thr Asn Glu Pro Ser Cys Gly Pro Asn Asp Ser Ser Gly Asn Thr Ser
    690                 695                 700
Gly Thr Thr Asn Asn Asn Thr Thr Gly Ser Asn Arg Arg Thr Ser Leu
705                 710                 715                 720
Ser Ala Ser Cys Leu Arg Ala Ala Cys Thr Leu Ile Ser Ile Leu Pro
                725                 730                 735
Glu Thr Pro Asp Pro Ala Trp Leu Leu Arg Phe Ser Pro Trp Trp Ser
            740                 745                 750
Ile Leu His Tyr Leu Val Gln Ala Thr Thr Ala Leu Leu Leu Gly Leu
        755                 760                 765
Ala Ser Ser Thr Pro Leu Pro Glu Thr Ala Ala Pro Asp Thr Ala Ala
    770                 775                 780
Val Ile Arg Cys Thr Lys Lys Ser Leu Arg Trp Leu His Ala Met Gly
785                 790                 795                 800
Ala Val Tyr Ala Ala Ser Arg Arg Ala Phe Ile Leu Cys Asp Ser Phe
                805                 810                 815
Ile Arg Arg Ile Ala Pro Ser Leu Gly Val Asp Val Gly Asp Leu Pro
            820                 825                 830
Asp Val Ala Gln Leu Pro Ala Leu Ser Thr Pro Asn Pro Ala Asn Ala
        835                 840                 845
```

```
Thr Thr Pro Ser Phe Thr Phe Met Pro Gly Gly Asn Gly Asn Gly Asn
    850                 855                 860
Gly Gly Glu Ala Ser Asp Ala Ala Trp Gly
865                 870
```

<210> 36742
<211> 227
<212> PRT
<213> A.fumigatus

<400> 36742

```
Ser Ser Pro Phe Ser Arg Gln Thr Lys Lys Pro Thr Arg Lys Arg Ser
1               5                   10                  15
Gly Leu Pro Ala Ala Ser Pro Ala Pro Arg Ser Phe Ser Ile Val Trp
            20                  25                  30
Ser Thr Phe Ala Pro Ser Pro Arg Pro Ser Ser Thr Arg Phe Thr Val
        35                  40                  45
Ser Lys Val Ser Ala Thr Gln Pro Ala Asn Ser Asn Ser Ala Ser Ala
    50                  55                  60
Asn Thr Pro Gln Asn Trp Thr Pro Gly Trp Pro Ser Tyr Pro Pro Ser
65                  70                  75                  80
Thr Ala Ser Pro His Ser His Ile His Thr Ile Leu Cys Thr Phe Pro
                85                  90                  95
Thr Thr Ala Leu Cys Ala Asn Ala Ser Ala Ser Arg Ser Pro Thr Thr
            100                 105                 110
Ala Leu Ala Ser Pro Ser Ala Asp Pro Val Ser Ala Val Gln Thr Pro
        115                 120                 125
Ser Pro Pro Lys Asn Pro Pro Pro Leu Pro Pro Pro Gln Thr His Pro
    130                 135                 140
Ile Gln Asn Leu Pro Pro Ala Gln Cys Pro Pro Leu Pro Leu Pro Pro
145                 150                 155                 160
Thr Asn Pro Ala Ala Gly Pro Thr Thr Ala Ala Ala Thr Pro Ala Ala
                165                 170                 175
Pro Gln Thr Thr Thr Pro Pro Ala Ala Thr Ala Ala Gln Ala Ser Pro
            180                 185                 190
Pro Pro Val Ser Ala Pro Pro Ala Pro Ser Ser Pro Ser Ser Pro Arg
        195                 200                 205
Pro Pro Thr Pro Pro Gly Ser Ser Ala Ser Pro Pro Gly Gly Ala Ser
    210                 215                 220
Ser Thr Thr
225
```

<210> 36743
<211> 150
<212> PRT
<213> A.fumigatus

<400> 36743

```
Ile His Val His Cys Leu Arg Arg Pro Asp Lys Glu Ser Leu Glu Lys
1               5                   10                  15
Ile Pro Cys Pro Arg Asn Cys Val Phe Asp Ser Val Gly Glu Ala Leu
            20                  25                  30
Gln Cys Ala His Arg Glu Arg Leu Phe Trp Gly Ile Leu Arg Ala Arg
        35                  40                  45
Val Gly Phe Gly Asp Met Gly Gln Asn Asp Leu Ser Val Ala Phe Arg
    50                  55                  60
```

```
Thr Lys Gly Thr Ala Phe Lys Lys Arg Phe Ala Glu Glu Asn Thr Ala
65                  70                  75                  80
Thr Ile Asn Ile Ser Ser Cys Val Asn Val Val Gln Ser Val Gly His
                85                  90                  95
Ala Ile Lys Ser Phe Pro Lys Phe Leu Val Glu Asn Val Phe Gly Val
            100                 105                 110
Gly Ser Tyr Ser Val Ser Glu Cys His Asp Phe Thr Phe Gln Val Arg
        115                 120                 125
Val His Cys Leu Cys Arg Ser Arg Ser Ala Phe Thr Phe Glu Leu Pro
    130                 135                 140
Asn Ile Phe Arg Thr Lys
145                 150
```

<210> 36744
<211> 817
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (642)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36744

```
Asn Pro Ser Met Gly Phe Val Ser Thr Ile Asp Gln Glu Gly Leu Val
1               5                   10                  15
Ser Cys Gly Gly Pro Asn Ser Pro Cys Leu Glu Asp Gly Asp Tyr Val
            20                  25                  30
Thr Phe Thr Glu Val Gln Gly Met Lys Gly Leu Asn Asn Cys Asp Pro
        35                  40                  45
Arg Lys Ile Thr Val Lys Gly Pro Tyr Thr Phe Ser Ile Gly Asp Val
    50                  55                  60
Ser Gly Leu Gly Thr Tyr Gln Gly Gly Gly Ile Phe Thr Gln Val Lys
65                  70                  75                  80
Met Pro Lys Phe Val Asp Phe Glu Pro Phe Ser Glu Gln Leu Lys Lys
                85                  90                  95
Pro Glu Leu Met Val Ser Asp Phe Ala Lys Phe Asp Arg Leu Gln Gln
            100                 105                 110
Leu His Ile Gly Val Gln Ala Leu His Lys Phe Ala Glu Ala His Asp
        115                 120                 125
Gly Gln Tyr Pro Arg Pro His Asn Asp Asp Asp Ala Gln Glu Val Ile
    130                 135                 140
Lys Ile Ala Asn Glu Leu Ala Ser Ser Gln Glu Glu Lys Val Glu Leu
145                 150                 155                 160
Asp Glu Lys Ile Ile Arg Glu Leu Ser Tyr Gln Ala Arg Gly Asp Leu
                165                 170                 175
Asn Pro Leu Ala Ala Phe Phe Gly Gly Val Ala Ala Gln Glu Val Leu
            180                 185                 190
Lys Ala Val Ser Gly Lys Phe Asn Pro Ile His Gln Trp Leu Tyr Leu
        195                 200                 205
Asp Ser Leu Glu Ser Leu Pro Thr Ser Val Thr Arg Ser Glu Glu Ser
    210                 215                 220
Cys Lys Pro Leu Gly Thr Arg Tyr Asp Gly Gln Ile Ala Val Phe Gly
225                 230                 235                 240
Lys Glu Phe Gln Asp Lys Ile Ala Asn Leu Thr Gln Phe Leu Val Gly
                245                 250                 255
```

```
Ala Gly Ala Ile Gly Cys Glu Thr Leu Lys Asn Trp Ala Met Met Gly
            260                 265                 270
Leu Gly Thr Gly Pro Lys Gly Lys Ile Phe Val Thr Asp Met Asp Gln
        275                 280                 285
Ile Glu Arg Ser Asn Leu Asn Arg Gln Phe Leu Phe Arg Ser Lys Asp
    290                 295                 300
Val Gly Lys Leu Lys Ser Glu Cys Ala Ser Ala Ala Ala Gln Ala Met
305                 310                 315                 320
Asn Pro Asp Leu Lys Gly Lys Ile Val Thr Leu Arg Asp Arg Val Gly
                325                 330                 335
Pro Asp Thr Glu His Ile Phe Asn Glu Glu Phe Trp Glu Ala Leu Asp
            340                 345                 350
Gly Val Thr Asn Ala Leu Asp Asn Val Asp Ala Arg Thr Tyr Val Asp
        355                 360                 365
Arg Arg Cys Val Phe Phe Arg Lys Pro Leu Leu Glu Ser Gly Thr Leu
    370                 375                 380
Gly Thr Lys Gly Asn Thr Gln Val Ile Leu Pro His Ile Thr Glu Ser
385                 390                 395                 400
Tyr Ser Ser Ser Gln Asp Pro Pro Glu Lys Ser Phe Pro Met Cys Thr
                405                 410                 415
Leu Lys Ser Phe Pro Asn Arg Ile Glu His Thr Ile Ala Trp Ala Arg
            420                 425                 430
Asp Leu Phe Gln Thr Phe Phe Val Gly Pro Pro Glu Ala Val Asn Met
        435                 440                 445
Tyr Leu Ser Gln Pro Asn Tyr Ile Glu Gln Thr Leu Lys Gln Ala Gly
    450                 455                 460
Asn Glu Lys Gln Thr Leu Glu His Leu Arg Asp Phe Leu Val Thr Asn
465                 470                 475                 480
Lys Pro Thr Ser Phe Asp Asp Cys Ile Ile Trp Ala Arg Gln Gln Phe
                485                 490                 495
Glu Ala Gln Tyr Asn Asn Ala Ile Gln Gln Leu Leu Tyr Asn Phe Pro
            500                 505                 510
Arg Asp Ser Lys Thr Ser Ser Gly Gln Pro Phe Trp Ser Gly Pro Lys
        515                 520                 525
Arg Ala Pro Thr Pro Leu Lys Phe Asp Ser Ser Asn Pro Thr His Leu
    530                 535                 540
Ala Phe Ile Val Ala Gly Ala Asn Leu His Ala Phe Asn Tyr Gly Ile
545                 550                 555                 560
Lys Asn Pro Gly Val Asp Lys Glu Tyr Tyr Arg Lys Val Val Asp Asn
                565                 570                 575
Met Ile Ile Pro Glu Phe Val Pro Arg Ser Gly Val Lys Ile Gln Ala
            580                 585                 590
Asp Glu Asn Glu Pro Asp Pro Asn Ala Gln Gln Ser Ser Ser Leu Asp
        595                 600                 605
Asp Ser Gln Glu Ile Gln Arg Leu Val Glu Ser Leu Pro Pro Pro Glu
    610                 615                 620
Ser Leu Gly Gly Phe Arg Leu Asn Pro Val Glu Phe Gln Lys Asp Asp
625                 630                 635                 640
Asp Xaa Asn His His Ile Asp Phe Ile Thr Ala Ala Ser Asn Leu Arg
                645                 650                 655
Ala Asp Asn Tyr Asp Met Pro Gln Ala Asp Arg His Lys Thr Lys Phe
            660                 665                 670
Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala Leu Val
        675                 680                 685
Thr Gly Leu Val Ala Leu Glu Leu Tyr Lys Ile Ile Asp Gly Lys Asp
    690                 695                 700
```

```
Asp Ile Glu Gln Tyr Lys Asn Gly Phe Val Asn Leu Ala Leu Pro Phe
705                 710                 715                 720
Phe Gly Phe Ser Glu Pro Ile Ala Ser Pro Lys Gly Lys Tyr Leu Gly
                725                 730                 735
Lys Gln Gly Glu Val Thr Ile Asp Arg Leu Trp Asp Arg Phe Glu Leu
            740                 745                 750
Asp Asp Ile Pro Leu Gln Asp Phe Leu Lys His Phe Ser Asp Leu Gly
        755                 760                 765
Leu Glu Ile Ser Met Val Ser Ser Gly Val Ser Leu Leu Tyr Ala Ser
    770                 775                 780
Phe Tyr Gly Pro Ser Lys Val Lys Asp Arg Leu Pro Met Lys Tyr Val
785                 790                 795                 800
Leu Pro Phe Thr His Arg Ser Arg Val Ser Thr Asn Val Ile Cys Leu
                805                 810                 815
Gly
```

<210> 36745
<211> 97
<212> PRT
<213> A.fumigatus

<400> 36745

```
Ala Leu Ser His Thr Met Ala Glu Asp Thr Pro Ala Asp Ser Arg Thr
1               5                   10                  15
Glu Val Gly Glu Ala Pro Val Glu Arg Ala Pro Ser Ala Val Ala Lys
            20                  25                  30
Thr Ala Pro Val Glu Ser Ala Pro Glu Ala Ser Lys Glu Gln Glu Thr
        35                  40                  45
Glu Lys Val Asn Gly Thr Gln Glu Lys Pro Ser Gly Lys Asn Phe Ser
    50                  55                  60
Val Pro Leu Leu Cys Asp Leu His Ser Ser Pro Phe Phe Phe Phe Ser
65                  70                  75                  80
Phe Phe Gly Lys Gly Gln Gly Val Ala Gln Phe Arg Phe Ser Ser Glu
                85                  90                  95
Thr
```

<210> 36746
<211> 174
<212> PRT
<213> A.fumigatus

<400> 36746

```
Glu Asn Phe Pro Cys Asp Val Pro Gly Asn Lys Arg Val Val Ser Ile
1               5                   10                  15
Met Ser Gly Leu Ser Ile Ser Met Glu Trp Ala Ala Asn Ala Lys His
            20                  25                  30
Ser Ala Trp Ile Pro Asn Thr Asp Leu Thr Pro Leu Asp Pro Ala Ser
        35                  40                  45
Cys Arg Asp Val Pro Glu Lys Gly Lys Ser Lys Gln Leu Leu Ala Ala
    50                  55                  60
Tyr Ala Val Ala Ala Glu Gly His Asp Leu Gln Tyr Phe Lys Glu Leu
65                  70                  75                  80
Leu Ala Asp His Gln Arg Ala Leu Gln Gln Glu Leu Glu Glu Gln Glu
                85                  90                  95
```

```
Ala Gln Gln Ala Ala Lys Glu Ala Ala Lys Ala Glu Arg Glu Ala Lys
            100                 105                 110
Lys Asn Lys Arg Lys Ser Met Asp Ile Val Asp Asp Leu Glu Asp Ile
        115                 120                 125
Asp Met Glu Asp Ala Gly Glu Pro Lys Lys Pro Lys Ser Ser Lys Lys
    130                 135                 140
Arg Lys Lys Asp Ala Glu Thr Asp Gly Glu Ala Glu Lys Val Asn Tyr
145                 150                 155                 160
Asp Ser Pro Ile Leu Val Val Thr Phe Thr Leu Ser Ser Asp
                165                 170
```

<210> 36747
<211> 199
<212> PRT
<213> A.fumigatus

<400> 36747

```
Leu Lys Arg Leu Val Leu Phe Val Arg His Arg Leu Gln Lys Gly Phe
1               5                   10                  15
Ile Ser Arg Asp Gln Pro Pro Lys Glu Glu Glu Met Thr Thr Met Ser
            20                  25                  30
Asn Tyr Phe Thr Arg Leu Glu Arg Val Ala Asp Asp Leu Glu Val Ser
        35                  40                  45
Ile Ile Arg Ala Thr Lys Ile Asn Lys Val Leu Lys Met Ile Val Lys
    50                  55                  60
Leu Asn Ser Ile Pro Arg Asp Glu Glu Phe Gln Phe Arg Arg Arg Ala
65                  70                  75                  80
Ile Asn Ile Leu Ser Lys Trp Lys Asn Val Leu Asp Ala Asp Thr Thr
                85                  90                  95
Thr Thr Pro Ala Glu Pro Lys Ala Asn Gly Ala His Lys Glu Asp Ser
            100                 105                 110
Val Glu Thr Pro Ala Lys Thr Glu Thr Glu Gly Glu Lys Glu Glu Glu
        115                 120                 125
Glu Ile Lys Ala Ala Lys Gln Asp Ser Ala Glu Pro Gln Asp Glu Ser
    130                 135                 140
Met Val Asp Ala Asp Ala Ala Leu Glu Lys Ala Glu Ala Pro Glu Pro
145                 150                 155                 160
Ala Lys Glu Ala Ser Glu Lys Glu Ala His Lys Ile Glu Glu Ala Thr
                165                 170                 175
Gly Ala Asn Val Thr Glu Glu Lys Pro Ala Glu Glu Lys Ala Glu Glu
            180                 185                 190
Lys Ala Val Glu Ala Ala Ala
        195
```

<210> 36748
<211> 88
<212> PRT
<213> A.fumigatus

<400> 36748

```
Pro Ala Lys Thr Pro Lys Thr Ala Thr Lys Leu Lys Leu Thr Thr Pro
1               5                   10                  15
Lys Thr Pro Thr Ser Glu Thr Glu Lys Lys Ala Thr Gly Ala Ser Lys
            20                  25                  30
Ser Lys Gln Thr Ala Ser Ser Lys Lys Ala Gly Lys Gly Gly Val Ser
        35                  40                  45
```

```
Asp Glu Gly Glu Glu Asp Thr Gly Ala Ala Pro Lys Glu Pro Glu Lys
    50                  55                  60
Gln Val Asp Gln Gly Glu Ala Lys Glu Arg Lys Gln Lys Glu Gly Arg
65                  70                  75                  80
Val Asp Leu Ser Glu Asn Pro Ser
                85
```

<210> 36749
<211> 75
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (67)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36749

```
Leu Trp Leu His Cys Pro Ser Gly Glu Ala Ser Val Ser Glu Glu Lys
1               5                   10                  15
Lys Glu Ser Thr Asp Thr Ser Ala Glu Lys Ser Lys Ala Pro Ala Glu
            20                  25                  30
Ala Ala Asp Ala Lys Glu Pro Glu Ala Thr Ala Ala Ala Pro Ala Glu
        35                  40                  45
Ser Glu Ala Gln Glu Ala Pro Pro Ser Ser Lys Lys Ser Gly Ser Ser
    50                  55                  60
Lys Arg Xaa Ser Ala Ser Gly Val Pro Gly Thr
65                  70                  75
```

<210> 36750
<211> 81
<212> PRT
<213> A.fumigatus

<400> 36750

```
Val Leu Ala Phe Leu Leu Thr Phe Arg Leu Ala Gly Ile Pro Thr Asp
1               5                   10                  15
Ile Ser Tyr Val Pro Phe Pro Pro Pro Ile Asp Glu Trp Arg Leu Glu
            20                  25                  30
Tyr Ser Lys Ser Leu Arg Thr Pro Phe Leu Thr Lys Gly Val Leu Ser
        35                  40                  45
Leu Ile Ile Val Ser Val Tyr Arg Met Ser Ile Phe His Ile Ser Gln
    50                  55                  60
Ile Asn Asp Thr Gly Ser Ser Pro Gly Ala Gly Arg Lys Arg Val His
65                  70                  75                  80
Arg
```

<210> 36751
<211> 154
<212> PRT
<213> A.fumigatus

<400> 36751

```
Val Phe Gln Ser Pro Leu Ile Asp Arg Arg Arg Lys Arg His Ile Gly
1               5                   10                  15
```

```
Asp Ile Ser Arg Asn Ser Ser Gln Thr Glu Ser Glu Gln Glu Cys Gln
            20                  25                  30
Asn Leu Ser Asn Arg Arg Ile Ile Val Ser Val Arg Gly Thr Lys Arg
        35                  40                  45
Glu Ile Ser Glu Gly Ile Arg Thr Thr Ile Cys Ala Tyr Val His Ala
    50                  55                  60
Ala Ala Ser Thr Ala Phe Ser Ser Ala Phe Ser Ser Ala Gly Phe Ser
65                  70                  75                  80
Ser Val Thr Leu Ala Pro Val Ala Ser Ser Ile Leu Trp Ala Ser Phe
                85                  90                  95
Ser Glu Ala Ser Leu Ala Gly Ser Gly Ala Ser Ala Phe Ser Lys Ala
            100                 105                 110
Ala Ser Ala Ser Thr Ile Asp Ser Ser Cys Gly Ser Ala Glu Ser Cys
        115                 120                 125
Leu Ala Ala Leu Ile Ser Ser Ser Ser Phe Ser Pro Ser Val Ser Val
    130                 135                 140
Phe Ala Gly Val Ser Thr Leu Ser Ser Leu
145                 150
```

<210> 36752
<211> 643
<212> PRT
<213> A.fumigatus

<400> 36752

```
Val Val Asp Ser Asp Glu Asp Gln Asn Asn Ser Ala Gln Leu Leu Lys
1               5                   10                  15
Pro Pro Thr Ser Arg Ala Lys Ala Gly Pro Arg Asp Pro Pro Asn Pro
            20                  25                  30
Val Ala Gln Ser Leu Lys Leu Phe Pro Asp Thr Met Pro Pro Arg Ser
        35                  40                  45
Ser Ser Lys Gly Ala Trp Arg Ile Pro Asn Asn Arg Ile Arg Gly Lys
    50                  55                  60
Asn Ala Pro Ile Ser Ala Lys Phe Ser Asp Ser Gln Gln Ile Pro Ala
65                  70                  75                  80
Thr Val Ala Ser Lys Arg Glu Thr Asp Asn Val Lys Asn Ser Ile Lys
                85                  90                  95
Gly Thr Ser Glu Cys Gln Gly Asp Pro Gln Arg Ser Tyr His Ser Gly
            100                 105                 110
Lys Ala Ser Thr Thr Arg Pro Arg Lys Pro Cys Ser Glu Pro Ala Met
        115                 120                 125
Ser Pro Ile His Pro Glu Phe Pro Arg Leu Lys Asn Thr Arg Arg Pro
    130                 135                 140
Ala Ser Leu Pro Met Gly Thr Ile Asp Ser Phe Pro Leu Pro Ala Pro
145                 150                 155                 160
Leu Arg Pro Leu Pro Ser Leu Pro Glu Gln Pro Pro Ala Leu Ser Thr
                165                 170                 175
Val Arg His His Asn Thr Pro Val Ile Lys Ala Ala Thr Arg Thr Asn
            180                 185                 190
Arg Asp His Ser Gly Ala Phe Pro Thr Thr Thr Ser Asn Asn Arg Ser
        195                 200                 205
Asp Ala Glu His Cys His Leu Asn Thr Gln Phe Ala Leu Pro Gln Leu
    210                 215                 220
Ser Leu Val Gly Asp Asp Leu Pro Ala Ser Glu Gln Gly Lys Ser Val
225                 230                 235                 240
Glu Glu Ala Pro Pro Asn His Pro Glu Ser Ser Gly Lys Ala Glu Glu
```

```
                245                 250                 255
Asn Gln Ala Glu Arg Leu His Ser Leu Lys Phe Arg Asp Met Met Ala
            260                 265                 270
Ser Arg Ile Ser Leu Asp Glu Ala Arg Lys Gly Asp Gly Ile Asn Ser
        275                 280                 285
Pro Ala Ser Pro Met Ser Ser Gly Ser Asp His Glu Leu Arg Ile Gly
    290                 295                 300
Tyr Glu Asn Glu His Leu Val Arg Thr Ser Val Gln Lys Glu Ala Thr
305                 310                 315                 320
Pro Pro Ala Pro Leu Ser Pro Pro Leu Ser Pro Pro Pro Ala Pro Pro
                325                 330                 335
Leu Val Lys Ser Ala Glu Gln Leu Pro Phe Ser Arg Arg His Val Ser
            340                 345                 350
Ser Ala Thr Ala Ile Met Arg Ala Ser Thr Glu Arg Arg Glu Pro Ser
        355                 360                 365
Leu Pro Ala Ser Asp Arg Ser Ala Thr Val His Arg Ser Lys Arg Thr
    370                 375                 380
Arg Ser Ile Asp Val Leu His Glu Leu Val Ala Ser Glu Gln His Thr
385                 390                 395                 400
Ser Asn Arg Ala Gly Ser Pro Leu Pro Ser Ser Asp Asp Glu Cys Met
                405                 410                 415
Asp Lys Gly Thr Phe Met Cys Glu Leu Arg Gln Asp Ser Asn Arg Tyr
            420                 425                 430
Gln Arg Lys Val Ala Ser Arg Lys Ser Ser Asn His Cys Leu Ser Arg
        435                 440                 445
Gln Arg Gly Pro Arg Lys Ser Ser Ile Pro Asp Gln Ser Gly Pro Leu
    450                 455                 460
Thr Pro Arg Arg Gln Arg Ser Arg Ile Ser Glu Glu Thr Leu Ser Ser
465                 470                 475                 480
Leu Leu Gly Ser Ser Ser Pro Tyr His Ser His Asp Pro Arg Asp Arg
                485                 490                 495
Arg Asp Lys Ala Ala His Thr Leu Val Leu Leu Glu Gly Arg Ile Glu
            500                 505                 510
Gln Leu Glu Arg Gln Asn Arg Ile Leu Gln Ala Ala Leu Phe Ala Ala
        515                 520                 525
Leu Asp Leu Gly Val Lys Pro Asn Ala Glu Ala Leu Leu Gly Gly Ser
    530                 535                 540
Thr Thr Ser Leu Ser Ala Ser Ala Asn Ser Ser Ser Ala Glu Thr Ser
545                 550                 555                 560
Ser Pro Ser Ser Thr Gln Arg Ala Ser Lys Leu Pro Gly Arg Ala Val
                565                 570                 575
Ala Asn Gly Arg Arg Ser Leu Met Lys Lys Ser Leu Arg Arg Pro Glu
            580                 585                 590
Ser Trp Ile Asp Ser Pro Gly Ala Ser Leu Gln Ser Asp Tyr Gln Ser
        595                 600                 605
Asp Asp Asp Val Ser Val Arg Asp Leu Glu Glu Met Ile Glu Asp Ile
    610                 615                 620
Glu Phe Thr Cys Ser Ser Asp Lys Pro Gly Ser Asp Arg Val Arg Ile
625                 630                 635                 640
Gly Arg Asp
```

<210> 36753
<211> 80
<212> PRT
<213> A.fumigatus

<400> 36753
His Leu Ala Met Ser Pro Lys Ala Arg Val Leu Leu Val Gly Ala Gly
1 5 10 15
Gly Ile Gly Thr Ile Ala Ala Leu Asn Leu Glu Arg Gly Gly Leu Ala
20 25 30
Glu Val Thr Cys Val Leu Arg Ser Asn Tyr Glu Ala Val Arg Ser Arg
35 40 45
Gly Ile Glu Ile Ile Ser Cys Glu His Gly His Ile Lys Asn Trp Arg
50 55 60
Pro Thr Ala Gly Leu Gln Ser Ser Leu Tyr Gly Met Val Cys Arg Gly
65 70 75 80

<210> 36754
<211> 288
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (222),(283)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36754
Arg Ser Thr Leu Val Leu Asn Val Ile Pro Arg Val Cys Ser Glu Asp
1 5 10 15
His Ser Thr Leu Phe Asp Tyr Ile Val Cys Thr Thr Lys Asn Ile Pro
20 25 30
Gly Val Thr Pro Ser Ile Cys Glu Thr Ile Ala Pro Ala Val Arg Pro
35 40 45
Gly His Thr Val Ile Val Leu Ile Gln Asn Gly Leu Asn Ile Glu Lys
50 55 60
Pro Phe Leu Ser Arg Phe Pro Gln Asn Val Ile Leu Ser Gly Val Ser
65 70 75 80
Arg Cys Asp Ala His Glu Ile Ala His Gly Val Ile Glu Gln Lys Glu
85 90 95
Asp Asp Asp Leu His Ile Ala Ala Phe His Asn Pro Leu Leu Asp Gln
100 105 110
Arg Thr Gln Gln Lys Ala Ala Glu Arg Phe Val Gln Ile Tyr Gly Ala
115 120 125
Gly Ser Lys Thr Asn Val Arg His Glu Pro Asn Trp Glu Arg Asp Arg
130 135 140
Trp Ser Lys Leu Val Tyr Asn Ala His Leu Lys Pro Ile Cys Ala Leu
145 150 155 160
Thr Gly Ser Ile Gln Glu Ile Ser Arg Leu Arg Gly Val Leu Ser Ile
165 170 175
Ala Trp Leu Phe Leu Ala Met Gln Glu Val Val Lys Ile Ile Gln Gly
180 185 190
Cys Gly Gly Gly Thr Tyr Leu Thr Ile Ser Leu Arg Arg Arg Phe Val
195 200 205
Arg Ile Arg Trp Arg Gly Arg Leu Leu Ile Ala Cys Lys Xaa Thr Trp
210 215 220
Lys Arg Tyr Val His Thr Tyr Phe Ser Ile Thr Leu Gly Leu Ile Ile
225 230 235 240
Ser Arg Ala Ile Tyr Leu Ser Met Lys Ile Ser Ser Ala Arg Trp Ser
245 250 255

```
Ala Lys Leu Arg Asn Lys Val Leu Pro Tyr Leu Ser Cys Leu Phe Cys
            260                 265                 270
Thr Ser Ser Ala Leu Leu Phe Asn Gly Gly Xaa Pro Arg Arg Glu Ala
        275                 280                 285

<210> 36755
<211> 430
<212> PRT
<213> A.fumigatus

<400> 36755
Ser Ala Ile Ser Leu Tyr Lys Cys Pro Phe Leu Gly Gln Thr Lys Tyr
1               5                   10                  15
Leu Gln His His Thr Glu Asp Gln Leu Asn Pro Lys Cys Pro Arg Gln
            20                  25                  30
Gln Ile Arg Pro Asn Leu His Pro His Leu Leu Gln Val Pro Gly Asp
        35                  40                  45
Pro Lys Lys Ser Leu Thr Gln Asn Lys Ala Trp Ile Tyr Gly Lys Lys
    50                  55                  60
Gly Phe Asp Lys Ala Trp Asp Ala Leu Asp Lys Val Gly Ala Pro Val
65                  70                  75                  80
Asn Arg Leu Ser Asn Lys Leu Gly Ser Glu Ala Phe Trp Pro Met Thr
                85                  90                  95
Leu Asp Lys Glu Ser Glu Lys Ala Ala Arg Ile Leu His Ser Phe Cys
            100                 105                 110
Lys Glu Gly Val Tyr Val Ala Asn Asp Ala Thr Val Ala Thr Arg Glu
        115                 120                 125
Gln Thr Pro Asp Lys Lys Ile Asp Lys Pro Arg Gly Lys Pro Lys Val
    130                 135                 140
Leu Gln Lys Ile Pro Ala Glu Val Ile Arg Gln Ala Lys Gly Ile Ala
145                 150                 155                 160
Ile Phe Thr Ala Met Arg Thr Gly Leu Trp Phe Ser Gly Ala Gly Gly
                165                 170                 175
Ser Gly Ile Leu Val Ala Arg Leu Pro Glu Thr Gly Glu Trp Ser Ala
            180                 185                 190
Pro Ser Gly Ile Leu Leu His Thr Ala Gly Val Gly Phe Leu Ala Gly
        195                 200                 205
Ile Asp Ile Tyr Asp Cys Val Met Val Ile Asn Thr Tyr Glu Ala Leu
    210                 215                 220
Glu Ala Phe Thr Lys Val Arg Val Thr Leu Gly Ser Glu Ile Ser Val
225                 230                 235                 240
Ala Ala Gly Pro Val Gly Met Gly Gly Val Leu Glu Ser Glu Val His
                245                 250                 255
Lys Arg Gln Ala Pro Ile Trp Ser Tyr Val Lys Ser Arg Gly Phe Tyr
            260                 265                 270
Ala Gly Ala Gln Ile Asp Gly Thr Ile Leu Ile Glu Arg Asn Asp Glu
        275                 280                 285
Asn Glu Arg Phe Tyr Gly Arg Lys Val Thr Val Lys Glu Ile Met Ala
    290                 295                 300
Ala His Val Arg Thr Glu Asn Ala Ser Val Arg Met Leu Met His Thr
305                 310                 315                 320
Leu His Ser Ala Gln Gly Asp Lys Gln Phe Asp Gln Thr Pro Ser Gly
                325                 330                 335
Val Ala Val Pro Thr Gly Pro Ser Pro Ser Asp Phe Ala Pro Glu Asp
            340                 345                 350
Leu Ala Asp Ser Asn Leu Met Ala Gln Gly Ala Leu Val Thr Pro Ala
```

```
        355                 360                 365
Gln Thr Ala Thr Glu Thr Pro Ala Thr Phe Asn Asp Arg Ser Val Pro
    370                 375                 380
Val Asp Gly Val Gln Asn Glu Glu Thr Val Ile Ala Gln Met Glu Ser
385                 390                 395                 400
Met Gly Phe Ala Arg Ile Asp Ile Asp Arg Ala Met Arg Ala Ala Ser
                405                 410                 415
Phe Asn Pro Asp Arg Ala Val Glu Tyr Leu Leu Asn Val Ser
            420                 425                 430
```

<210> 36756
<211> 88
<212> PRT
<213> A.fumigatus

<400> 36756

```
Ser Gln Arg Ile Glu Ala Met Pro Arg Asp Ser Gln His Ser His Arg
1               5                   10                  15
Val Thr His Arg Ile Ile Thr His His Trp Gly Lys Trp Val Ala His
            20                  25                  30
Thr Leu Ile Ile Ala Cys Leu Leu Ser Asn Val Cys Leu Ser Tyr Ala
        35                  40                  45
Ala Ala Gly Asp Val Asp Gly Phe Ile Phe Leu Pro Gly Ser His Asp
    50                  55                  60
Arg Pro Ser Val Tyr Ile Asn Val Arg Ser Ser Asp Lys Gln Asn Ile
65                  70                  75                  80
Tyr Asn Thr Ile Gln Lys Thr Asn
                85
```

<210> 36757
<211> 128
<212> PRT
<213> A.fumigatus

<400> 36757

```
Pro Val Lys Leu Val Ser Gln Leu Tyr Ser Pro Glu Asn Ala Gly Asn
1               5                   10                  15
Pro Ala Glu Ile Lys Phe Ile Gln Glu Arg Leu Gln Ser Leu Gln Lys
            20                  25                  30
Gly Pro Glu Ala Trp Leu Ile Ala Asn Asp Leu Leu Ser Ala Asn Ser
        35                  40                  45
Thr Asp Met Arg Phe Phe Gly Ala Leu Thr Phe Thr Val Lys Ile Asn
    50                  55                  60
Leu Asp Trp Tyr Val Thr His Trp Asn Val Tyr Gly Val Gln Leu Ser
65                  70                  75                  80
Asp Ile Val Ala Gly Arg Asn Ser Thr Ser Met Met Leu Lys Ser Phe
                85                  90                  95
Leu Val Gly Trp Leu Ala Thr Met Leu Tyr Leu Ser Thr Gln Ala Ser
            100                 105                 110
Ala Leu Ser Ser Phe Glu Ser Trp Pro Gln Pro Trp Glu Pro Ser Ser
        115                 120                 125
```

<210> 36758
<211> 92
<212> PRT
<213> A.fumigatus

<400> 36758
Arg Asn Ser Val Glu Gly Lys Ala Ser Glu Glu Ile Val Leu Gly Ser
1 5 10 15
Asp Leu Leu Gln Leu Ile Cys Gly Ile Asn Phe Val Lys Asn Ser Leu
20 25 30
Phe Val Asn Gln Leu Val Phe Lys Pro Arg Lys Val Phe Asp Gln Arg
35 40 45
Gly Thr Val Ser Asp Met Ala Gly Pro His Thr Arg Lys Leu Tyr Phe
50 55 60
Ile Leu Asp Ser Phe Ser Val Gly Asn Arg Thr Pro Gly Leu Leu His
65 70 75 80
Met Leu Leu Ala Ser Gln Ala Glu Ala Lys Cys Pro
85 90

<210> 36759
<211> 299
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (279)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36759
Glu Glu Ala Ser Lys His His Pro Leu Lys Phe Asp Tyr Val Gln Leu
1 5 10 15
Arg Asp Asp Ser Ile Pro Tyr Asn Pro Val Phe Phe Ala Tyr Ala Ile
20 25 30
Ile Thr Pro Thr Lys Ala Glu Leu Tyr Ile Asp Asp Asp Lys Ile Thr
35 40 45
Pro Glu Val Val Ala His Leu Gly Gln Asp Val Val Ile Lys Pro Tyr
50 55 60
Asn Ser Ile Phe Ala Asp Ala Lys Ala Leu Ser Glu Ala Arg Arg Lys
65 70 75 80
Glu Ala Gly Glu Thr Ala Ser Lys Phe Leu Leu Ser Asn Lys Ala Ser
85 90 95
Trp Ala Leu Ser Leu Ser Leu Gly Gly Glu Glu His Val Glu Glu Thr
100 105 110
Arg Ser Pro Ile Ala Asp Ala Lys Ala Ile Lys Asn Glu Val Glu Leu
115 120 125
Ala Gly Met Arg Ala Cys His Ile Arg Asp Gly Ala Ala Leu Ile Glu
130 135 140
Tyr Phe Ala Trp Leu Glu Asn Glu Leu Val Asn Lys Lys Thr Val Leu
145 150 155 160
Asp Glu Val Asp Ala Ala Asp Lys Leu Glu Gln Ile Arg Thr Lys His
165 170 175
Asp Leu Phe Ala Gly Leu Ser Phe Asp Thr Ile Ser Ser Thr Gly Pro
180 185 190
Asn Gly Ala Val Ile His Tyr Lys Pro Glu Lys Gly Thr Cys Ser Ile
195 200 205
Ile Asp Pro Asp Ala Ile Tyr Leu Cys Asp Ser Gly Ala Gln Tyr Leu
210 215 220
Asn Gly Thr Thr Asp Val Thr Arg Thr Phe His Phe Gly Lys Pro Thr
225 230 235 240

```
Glu Leu Glu Lys Lys Ala Phe Thr Leu Val Leu Lys Gly Leu Asn Ala
                245                 250                 255
Ile Asp Thr Ala Val Ile Pro Lys Gly Thr Ser Gly Phe Ala Leu Asp
            260                 265                 270
Ala Leu Ala Lys Gln Tyr Xaa Leu Glu Arg Arg Thr Gly Tyr Leu His
        275                 280                 285
Gly Thr Arg Gln Trp Cys Trp Leu Ile Pro Gly
    290                 295
```

<210> 36760
<211> 68
<212> PRT
<213> A.fumigatus

<400> 36760

```
Leu Arg Asp Asn Pro Glu Leu Thr Thr Ile Phe Ile Glu Phe Ile Ser
1               5                   10                  15
Gly Phe Ser Gly Ser Ala Gly Thr Ala Ile Val Ser Met Thr Lys Ala
            20                  25                  30
Ala Leu Ser Thr Asp Gly Arg Tyr Phe Asn Gln Ala Ser Lys Gln Leu
        35                  40                  45
Asp Ser Asn Trp Glu Leu Leu Lys Arg Gly Val Glu Asn Val Pro Thr
    50                  55                  60
Trp Gln Glu Trp
65
```

<210> 36761
<211> 102
<212> PRT
<213> A.fumigatus

<400> 36761

```
Asn Asp Ile Ala Gly Ala Arg Ser Leu Glu Glu Thr Leu Lys Arg Asn
1               5                   10                  15
Gly Ser Ser Leu Val Gly Ile Ser Gln Asn Leu Val Asp Leu Val Trp
            20                  25                  30
Gly Lys Asp Arg Pro Ala Pro Pro Arg Glu Lys Val Arg Val His Pro
        35                  40                  45
Asp Lys Phe Ser Gly Lys Thr Phe Gln Glu Lys Ile Ala Asp Leu Arg
    50                  55                  60
Lys Glu Leu Glu Lys Lys Lys Thr Ala Gly Phe Val Ile Cys Thr Ala
65                  70                  75                  80
Thr Arg Pro Ser Ser Leu Lys Pro Thr Ala Val Leu Met Ala Asn Lys
                85                  90                  95
Glu Pro Ser Tyr Ala Gly
            100
```

<210> 36762
<211> 69
<212> PRT
<213> A.fumigatus

<400> 36762

```
Leu Ile Trp Glu Cys Arg Asp Leu Ala Lys Phe Ile Ala Ser Asn Arg
1               5                   10                  15
Ile Ala Cys Thr Ile Asp Arg Val Asn Gly Ile Ile Glu Thr Asn Arg
```

```
            20                  25                  30
Pro Asp Asp Lys Asn Lys Gln Tyr Ala Asp Leu Val Lys His Gly Asp
        35                  40                  45
Ala Leu Ile Thr Lys Leu Gln Lys Tyr Gly Gln Ala Val Arg Leu Arg
    50                  55                  60
Gly Ser Glu Arg Ser
65
```

<210> 36763
<211> 224
<212> PRT
<213> A.fumigatus

<400> 36763

```
Arg Gly Ser Phe Asp Pro Arg Gly Glu Asp Leu Lys Ala Tyr Lys Gly
1               5                   10                  15
Leu His Leu Leu Thr Val Arg Ser Tyr Asn Leu Ala Ala Pro Leu Leu
            20                  25                  30
Leu Asp Ser Leu Ser Thr Phe Thr Ser Tyr Glu Leu Cys Ser Tyr Ser
        35                  40                  45
Ala Leu Val Ile Tyr Ser Val Leu Ala Gly Ser Leu Ser Leu Lys Arg
    50                  55                  60
Val Asp Phe Lys Ala Lys Val Val Asp Ala Pro Glu Ile Lys Ala Ile
65                  70                  75                  80
Leu Gly Ala Gly Glu Asp Arg Leu Ala Ala Leu Thr Gly Glu Ile Ser
                85                  90                  95
Ala Gly Glu Gly Ala Arg Asp Glu Glu Met Lys Asp Ala Ser Val Ser
            100                 105                 110
Thr Ala Thr Pro Gly Thr Ala Thr Thr Ala Ile Asn Leu Thr Thr Leu
        115                 120                 125
Gly Thr Gly Ser Gly Leu Gln Ala Glu Thr Glu Ala Pro Ile Asp Phe
    130                 135                 140
Ser Pro Leu Ala Asn Leu Val Asp Ser Leu Tyr Ser Gly Asn Tyr Arg
145                 150                 155                 160
Thr Phe Phe Arg Ala Leu Ala Ala Val Glu Asp Asn Phe Leu Thr Gln
                165                 170                 175
Asp Arg Tyr Leu Tyr Glu His Arg Ala Trp Phe Val Arg Glu Met Arg
            180                 185                 190
Leu Arg Ala Tyr Gln Gln Leu Phe Gln Ser Tyr Arg Val Val Gly Leu
        195                 200                 205
Asn Ser Met Ala Asn Ala Phe Gly Val Thr Val Asp Phe Leu Asp Arg
    210                 215                 220
```

<210> 36764
<211> 168
<212> PRT
<213> A.fumigatus

<400> 36764

```
Ser Arg Met Ile Thr Glu Pro Thr Met Thr Val Pro Tyr Thr Thr Lys
1               5                   10                  15
Arg Thr Ala Ser Asp Leu Gly Pro Arg Arg Leu Arg Ala Asp Asn Ile
            20                  25                  30
Asn Pro Asn Val Lys Ala Ala Lys Tyr Ala Val Arg Gly Glu Leu Ala
        35                  40                  45
Val Lys Ala Glu Glu Tyr Arg Val Arg Leu Ala Lys Gly Asp Lys Ser
```

```
    50                  55                  60
Leu Pro Phe Asp Ser Val Ile Phe Ala Asn Ile Gly Asn Pro Gln Gln
65                  70                  75                  80
Leu Asp Gln Lys Pro Ile Thr Phe Phe Arg Gln Val Leu Ser Leu Leu
                85                  90                  95
Glu Asn Thr Ala Leu Leu Glu Lys Pro Glu Val Leu Arg Ser Ser Phe
            100                 105                 110
Gly Tyr Asn Gln Asp Val Ile Asp Arg Ala Lys Lys Leu Leu Ala Asp
        115                 120                 125
Ile Gln Ser Val Gly Ala Tyr Ser His Ser Gln Gly Ala Pro Val Ile
    130                 135                 140
Arg Glu Ser Val Ala Lys Phe Ile Glu Glu Arg Asp Gly Phe Pro Ala
145                 150                 155                 160
Asn Pro Gln Asp Leu Tyr Leu Cys
                165
```

<210> 36765
<211> 260
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (254)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36765

```
Leu Leu Ser Ile Cys Ser Val Leu Thr Asp Trp Thr Thr Ser Ser Met
1               5                  10                  15
Ile Ser Thr Asn His Pro Glu Asn Met Glu Arg Lys Arg Arg Asn Gly
            20                  25                  30
Gln Leu Pro Ser Cys Glu Pro Cys Arg Lys Ser Lys Leu Gly Cys Asp
        35                  40                  45
His Thr Arg Pro Ile Cys Asn Arg Cys Val Arg Arg Gly Arg Thr Glu
    50                  55                  60
Glu Cys Phe Tyr His Pro Ser Pro Leu Thr Lys Pro Arg Gln Ser Asn
65                  70                  75                  80
Ala Thr Val Gln Ser Arg Asn Gln Val Pro Gly Ala Ser Tyr Ser Ile
                85                  90                  95
Arg Asp Leu Ser Val Ser Ser Thr Val Ser Gly Ser Ser Ala Ala His
            100                 105                 110
Arg Pro Ser Ala Leu Thr Lys Pro Arg Glu Ser Lys Ala Ala Ala Ile
        115                 120                 125
Arg Lys Pro Arg Gln Lys Leu Thr His Arg Pro Ser Gln Asn Gln Ser
    130                 135                 140
Ser Pro Asn Ala Asn Val Ser Val Asn Ala Ser Val Ser Pro Ile Gly
145                 150                 155                 160
Thr His Ser Val Ser Val Ser Val Ser Ala Ser Val Ser Ala Ser Pro
                165                 170                 175
Leu Thr Ile Gly Glu Ser His Ala Trp Glu Lys Arg Pro Phe Ala Asn
            180                 185                 190
Pro Gly Phe Leu Gly Leu Thr Ser Tyr Ser Asp Asn Val Thr Gly Tyr
        195                 200                 205
Ala Ala Val Leu Asp His Ala Met Arg Pro His Gly Ser Gly Ser Ser
    210                 215                 220
Pro Ser Gly Ser Ile Ala Ala Ala Val Asp Ser Arg Gln Val Glu Leu
```

225 230 235 240
Gly Ala Gln Val Leu Met Leu Leu Asp His Leu Ala Leu Xaa Glu Glu
245 250 255
Leu Leu Glu Lys
260

<210> 36766
<211> 88
<212> PRT
<213> A.fumigatus

<400> 36766
Phe Asp Leu Arg Arg Ile Pro Thr Thr Ser His Leu Ser Pro Asp Tyr
1 5 10 15
Ile Thr Val Thr Ala Gln Met Ala Thr His Ala Asp Ser Val His Pro
20 25 30
Ala Cys Lys Val Val Leu Ser Lys Asn Val Ala Asn Ser Leu Val Ala
35 40 45
Glu Val Gln Glu Gly Val Lys Thr Leu Glu Lys Pro Pro His Leu Val
50 55 60
Gly Phe Leu Ala Asn Asp Asp Pro Ala Ala Leu Met Tyr Ala Gln Trp
65 70 75 80
Thr Asp Lys Thr Cys Gln Glu Lys
85

<210> 36767
<211> 93
<212> PRT
<213> A.fumigatus

<400> 36767
Glu Met Ser Pro Ser His Leu Val Tyr Leu Leu Tyr Phe Leu Leu Leu
1 5 10 15
Ser Leu Lys Trp Thr His Thr Asp Ser Ser Gly Gly Ala Ala Ala Asn
20 25 30
His Met Ala Gln Gln Met Ala Ser Met Asn Pro Gly Ala Gly Val Asn
35 40 45
Pro Leu Gln Pro Gly Gln Asp Pro Asp Lys Leu Tyr Gln Ser Glu Ala
50 55 60
Glu Asn Leu Glu Val Thr Glu Phe Phe Ser Ile Leu Asp Gly Ile Glu
65 70 75 80
Glu Arg Val Leu His Asn Tyr Ala Ser Lys Glu Ile Arg
85 90

<210> 36768
<211> 199
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (127),(139),(174)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36768
Tyr Ser Gly Phe Arg Tyr Ser Leu Arg Gln Val Ser Arg Asp Asp Ile

```
1               5                   10                  15
Glu Asp Ala Ile Leu Ala Ala Asn Ala Asp Ser Asp Val Asp Gly Ile
            20                  25                  30
Ile Val Tyr Tyr Pro Ile Phe Asn Asn Arg Gln Asp Gln Tyr Leu Gln
        35                  40                  45
Gln Ile Val Asp Val Ser Lys Asp Val Glu Gly Leu Ser His Arg Tyr
    50                  55                  60
Ile Phe Asn Met Tyr Gln Asn Ile Arg Phe Leu Asp Pro Glu Thr Lys
65                  70                  75                  80
Arg Gln Lys Cys Ile Leu Pro Cys Thr Pro Leu Ala Ile Ile Lys Ile
                85                  90                  95
Leu Glu Tyr Leu Asn Ile Tyr Asn Thr Ile Leu Pro Tyr Gly Asn Arg
            100                 105                 110
Leu Phe Gly His Thr Ile Cys Val Val Asn Arg Ser Lys Val Xaa Gly
        115                 120                 125
Arg Pro Leu Ala Ala Leu Val Ala Asn Asp Xaa Ala Cys Val Tyr Ser
    130                 135                 140
Val Asp Ile Thr Gly Val Gln Lys Phe Thr Arg Glu Gly Leu Lys Lys
145                 150                 155                 160
Arg Arg His Glu Val Val Asp Leu Gly Arg Lys Thr Phe Xaa Asp Val
                165                 170                 175
Ala Pro Leu Cys Glu Cys Cys His His Gly Cys Ser Gln Arg Ile Val
            180                 185                 190
Gln Val Arg His Lys Pro Pro
        195
```

<210> 36769
<211> 135
<212> PRT
<213> A.fumigatus

```
<400> 36769
Cys Ser Val Lys Ile Leu Thr Gly Ile Leu Arg His Tyr Ala Thr Val
1               5                   10                  15
Leu Met Thr Thr Pro Pro Lys Pro Pro Ala Thr Leu Ala Glu Ser Lys
            20                  25                  30
Glu Arg Leu Ser Leu Met Arg Gly Val Asn Leu Arg Asn Asn Ala Pro
        35                  40                  45
Ala Val Leu Ser Arg Glu Gly Phe Glu Met Arg Lys Asn Tyr Leu Ile
    50                  55                  60
Ser Ser Tyr Lys Ser Gly Ala Phe Leu Lys Asp Pro Ser Ser Arg Gly
65                  70                  75                  80
Gln Pro Pro Ala Asn Pro Met Thr Asp Pro Ala Gly Met Glu Ala Met
                85                  90                  95
Met Gly Met Met Lys Gly Asn Met Met Met Met Ile Pro Gln Thr Leu
            100                 105                 110
Ile Met Ser Trp Ile Asn Ala Phe Phe Ser Gly Phe Val Ile Arg Met
        115                 120                 125
Val Thr Ser Leu Gln Arg Ser
    130                 135
```

<210> 36770
<211> 106
<212> PRT
<213> A.fumigatus

<400> 36770
Pro Arg Leu Cys Ala Asn Gly Val Gly Thr Val Lys Leu Pro Phe Pro
1 5 10 15
Leu Thr Ile Arg Phe Lys Ser Met Leu Gln Ser Gly Val Met Thr Arg
20 25 30
Asp Leu Asp Val Arg Trp Val Ser Ser Leu Ser Trp Tyr Phe Leu Asn
35 40 45
Leu Phe Gly Leu Gln Ser Val Phe Gly Phe Ile Leu Gly Ser Asp Asn
50 55 60
Gly Glu Arg Cys Pro His His Thr Leu Tyr Ile Tyr Tyr Thr Ser Cys
65 70 75 80
Tyr Phe Pro Ser Ser Gly His Ile Leu Ile Leu Leu Gly Val Gln Leu
85 90 95
Pro Ile Thr Trp Leu Ser Lys Trp Leu Val
100 105

<210> 36771
<211> 83
<212> PRT
<213> A.fumigatus

<400> 36771
Phe Trp Glu His Lys Leu Leu Ile His Lys Gly Glu Val Ser His Leu
1 5 10 15
Asp Glu Pro Met Leu Met Leu Thr Val Ser Tyr Phe Glu Pro Gln Gln
20 25 30
Cys Glu Gly Tyr Ile Leu Leu Ala Tyr Ser Tyr Ile Thr Gln Phe Asp
35 40 45
Leu Val Ser Cys Ser Leu Leu Pro Trp Ala Glu Cys Gly Val Cys Phe
50 55 60
Ile Asp Lys Arg Ala Ile Phe Ser Val Pro Lys Ile Cys Gln Cys Pro
65 70 75 80
Ser Val Val

<210> 36772
<211> 88
<212> PRT
<213> A.fumigatus

<400> 36772
Pro Pro Cys Ala Asn Val Val Ile Thr Gly Val Pro Ser Glu Ser Tyr
1 5 10 15
Lys Phe Asp Thr Ser Leu Leu Arg Glu Gly Ala Val Cys Val Asn Phe
20 25 30
Ser Ser Glu Lys Val Cys Phe Arg Tyr Cys Leu Asn Ala Ile Trp Asp
35 40 45
Ser Gly Glu Leu Met Tyr Arg Thr Glu Leu Arg Pro Arg Ser Lys Arg
50 55 60
Glu Gly Ile His Leu Arg Ser Phe Asn Arg Gln Gly Asp Tyr Cys Gly
65 70 75 80
Ala Ala Pro Glu Pro Leu Gly Glu
85

<210> 36773
<211> 66

<212> PRT
<213> A.fumigatus

<400> 36773
Ser Cys Ser Ser Ile Ser Pro Lys Leu Ile Ser Ile Glu Ile Lys Ala
1 5 10 15
His Asn Gly Asn Leu Arg Ala Gln Gly Ala Gly Leu Leu His Gln Arg
20 25 30
Leu Val Leu Tyr Thr Pro Asn Ser Tyr Ile Glu Leu Tyr Phe Gly Ser
35 40 45
Ser Tyr Arg Thr Arg Tyr Ala Asn Pro Leu Ile Thr Val Ala Asn Asn
50 55 60
His Ile
65

<210> 36774
<211> 90
<212> PRT
<213> A.fumigatus

<400> 36774
Ile Ser Ile Arg Ser Ser Val Lys Lys His Ser Pro Leu Tyr Lys Leu
1 5 10 15
Arg Val Gln Tyr Thr Ser Pro Ser Asn Lys Ile Leu Gln Glu Lys Glu
20 25 30
Ile Asp Ala Pro Phe Met Asn Trp Phe Ser Ala Asp Gly Thr Phe His
35 40 45
Pro Glu Pro Leu Arg Arg Trp Leu Ser Thr Glu Ile Glu Val Leu Arg
50 55 60
Leu Ala Ala Lys Glu Thr Glu Arg Lys Thr Gly Gly Val Gly Ser Val
65 70 75 80
Val Gly Val Gln Asp Thr Lys Asn Lys Lys
85 90

<210> 36775
<211> 105
<212> PRT
<213> A.fumigatus

<400> 36775
Gln Pro Tyr Leu Asp Leu Lys Ser Thr Thr Asp Asp Ala Leu Val Pro
1 5 10 15
Tyr Leu Cys Thr Leu Pro Gln Pro Tyr Thr Phe Lys Gln Asp His Ser
20 25 30
Lys Ser Asn Val Arg Phe Leu Leu Gly Tyr Ser Ala Val Ala Ile Ala
35 40 45
Ala Phe Thr Phe Tyr Ala Asp Arg Lys Leu Gly Trp Glu Ala Thr Thr
50 55 60
Ser Pro Trp Val Ile Ala Ala Val Cys Ser Tyr Phe Ile Leu Asn Thr
65 70 75 80
Gly Leu Thr Phe Trp Ile Trp Ala Val Glu Ala Gly Glu Val Phe Arg
85 90 95
Gly Lys Arg Glu Ser Gly Glu Thr Val
100 105

<210> 36776

<211> 69
<212> PRT
<213> A.fumigatus

<400> 36776
Leu Gly Leu Pro Thr Arg Leu His Ala Ile Arg Leu Glu Leu Asn Asn
1 5 10 15
Cys Leu Ala His Glu Arg Phe Tyr Asp Val Tyr Leu Asp Thr Ile Leu
20 25 30
Val His Thr Leu Glu Tyr Phe Leu Cys Ser Lys Thr Leu Gly Gln Gly
35 40 45
Asp Thr Phe Val Arg Val Ser His Leu Asp Met Phe Lys Lys Leu Asp
50 55 60
Met Lys Ala Phe Ser
65

<210> 36777
<211> 64
<212> PRT
<213> A.fumigatus

<400> 36777
Val Gly Ile Gly Ser Gln Asn Ser Ile Phe Asp Ile Val Ala Gly His
1 5 10 15
Leu Ala Gln Arg Ile Thr Glu Ser Thr Val Ser Met Asn Phe Tyr Val
20 25 30
Ser Tyr Ala Lys Val Thr Gln Asn Asp Ala Met Pro Cys Ser Glu Ile
35 40 45
Ala Ile Glu Gly Val Gly Lys Ile Arg Asp Arg Thr Ala Gln Leu Thr
50 55 60

<210> 36778
<211> 372
<212> PRT
<213> A.fumigatus

<400> 36778
Arg Pro Ser Val Ala Asp Ala Cys Ala Cys His Val Cys Ala Arg Cys
1 5 10 15
Lys Val Ser Gln Ser Met Leu Lys Gln Leu Arg Lys Leu Thr Asn Gly
20 25 30
Arg Phe Ser Lys Asn Thr Val Phe Asn Gly Val Ala Pro Glu Ser Arg
35 40 45
Gly Lys Leu Tyr Ala Gly Glu Ala Ile Arg Leu Phe Gln Glu Arg Val
50 55 60
Asn Tyr Pro Ser Leu Glu Thr Val Gln Gly Ala Val Leu Leu Gly His
65 70 75 80
Leu Val Gly Gly Glu Gly Asp Ala Gln Ala Lys Gln Ala Tyr Ile Gly
85 90 95
Ile Ala Arg Thr His Ala Glu Val Leu Ser Leu Trp Ala Met Pro Pro
100 105 110
Asn Ser Thr Val Val His Arg Glu Glu Arg Arg Arg Thr Trp Leu Ser
115 120 125
Ile Arg Ile Ala Asp Pro Trp Thr Ile Ile Asp Met Ser Val Asn Ser
130 135 140
Gly Ala Ser Leu Gln Asn Leu Asn Val Leu Pro Glu Val Asp Asp Val

```
145                 150                 155                 160
Ala Phe His Thr Tyr Asp Pro Glu Leu Leu Arg Glu Val Pro Val Pro
                165                 170                 175
Ser Ser Ser Arg Cys Asp Met Trp Ala Gln Met Ala Gly Thr Leu Asp
            180                 185                 190
Ile Tyr Thr Arg Ile Ser Val Leu Leu Thr Arg Leu Ser Arg Gly Val
        195                 200                 205
Ile Ala Phe Asp Ala Tyr Leu Ser Glu Val Pro Leu Leu Lys Glu Cys
    210                 215                 220
Leu Asp Gly Trp Val Arg Gly Leu Pro Pro Thr Leu Ala Tyr Ser Ser
225                 230                 235                 240
Lys Asn Leu Ala Phe Phe Ala Lys Gln Gly Leu Gly Arg Asn Phe Leu
                245                 250                 255
Ala Met His Ile Val Tyr His His Phe Arg Gln Met Leu Phe Phe Pro
            260                 265                 270
Ser Leu Asp Ala Arg Ala Val Arg Asp Ala Ala Ser Thr Ala Asp Gly
        275                 280                 285
Ile Ala Gln Cys Arg Lys Ser Ala Asn Ala Ile Ser Glu Ile Ile Asp
    290                 295                 300
Cys Ser Thr Lys Ala Asp Asp Cys Gln Leu Asp Tyr Phe Leu Tyr Gly
305                 310                 315                 320
His Val Ala Ile Val Ser Ser Cys Val Tyr Met Gln Ile Leu Met Leu
                325                 330                 335
Ser Glu Glu Leu Ser Glu Leu Ser Thr Ala Arg Gln Arg Leu Val Ser
            340                 345                 350
Asn Phe Glu Tyr Leu Met Gly Leu Lys Thr His Trp Pro Ala Ile Arg
        355                 360                 365
Gln Ser Val Ser
    370
```

<210> 36779
<211> 117
<212> PRT
<213> A.fumigatus

```
<400> 36779
Asp Gly Val Ser Lys Ser Ser Leu Arg Ser Ser Val Ser Ile Ser Pro
1               5                   10                  15
Leu Ser Thr His Asp Pro Leu Ala Tyr Ala Cys Pro Pro Leu Ser Arg
            20                  25                  30
Arg Thr Asp Ser Ser Thr Arg Ile Ser Ser Leu Thr Ala Arg Leu Glu
        35                  40                  45
Cys Tyr Val Val Cys Leu Tyr His Ile Thr Leu Ser Pro His His Val
    50                  55                  60
Thr Phe Arg Ser Arg His Tyr Ser Ala Thr Phe Phe Ser Ile Thr Leu
65                  70                  75                  80
Tyr Leu Thr Asp Thr Ser Ser Tyr Leu Thr Leu Tyr Ile Val His Ser
                85                  90                  95
Leu Leu Leu Ser Ala Leu Ala Tyr His Ile Pro Thr Phe Leu Thr Cys
            100                 105                 110
Pro Tyr Met Ser Thr
        115
```

<210> 36780
<211> 69
<212> PRT

<213> A.fumigatus

<400> 36780
Arg Gly Ala Leu Ser Glu Phe Val Arg Thr Asp Ser Ala His Leu Glu
1 5 10 15
Ser Asn Ala Ala Arg Asn Thr Ala Leu Arg Arg Arg Gln Leu Ser Asn
20 25 30
Pro Pro Ser Asn Pro Pro Ser Gly Thr Leu Leu Leu Asp Thr Asp Lys
35 40 45
Gly His Ser Thr His His Gly Phe Arg Pro Glu Cys Ala Met Leu Arg
50 55 60
Gln Glu Glu Asp Gly
65

<210> 36781
<211> 96
<212> PRT
<213> A.fumigatus

<400> 36781
Val Tyr Glu Pro Leu Leu Ile Val Gly Ala Asp Lys Phe Ala Gly Val
1 5 10 15
Asp Ile Arg Val Arg Val Ser Gly Gly Gly His Thr Ser Gln Ile Tyr
20 25 30
Ala Ile Arg Gln Ala Ile Ala Lys Ser Ile Val Ala Tyr Tyr Gln Lys
35 40 45
Tyr Val Asp Glu His Ser Lys Asn Gln Leu Lys Gln Ala Phe Val Gln
50 55 60
Tyr Asp Arg Thr Leu Leu Val Ala Asp Asn Arg Arg Thr Glu Pro Lys
65 70 75 80
Lys Phe Gly Gly Arg Gly Ala Arg Ala Arg Tyr Gln Lys Ser Tyr Arg
85 90 95

<210> 36782
<211> 140
<212> PRT
<213> A.fumigatus

<400> 36782
Thr Arg Leu Ala Tyr Ser Arg Thr Trp His Tyr Ile Asp Val Gly Ser
1 5 10 15
Asp Pro Arg Ser Leu Gly Arg Leu Ala Ser Ser Ile Ala Leu Phe Leu
20 25 30
Met Gly Lys His Lys Pro Ile Tyr Asp Pro Ser Thr Asp Cys Gly Asp
35 40 45
Tyr Val Val Ala Val Gly Cys Ser Asp Leu Arg Thr Thr Gly Lys Lys
50 55 60
Arg Phe Gln Lys Lys Tyr Tyr Thr His Thr Thr Arg Pro Gly Ser Leu
65 70 75 80
Arg Ser Met Thr Met Asp Gln Met Phe Glu Lys Trp Gly Gly Gly Glu
85 90 95
Val Leu Arg Arg Ala Val Arg Gly Met Leu Pro Lys Asn Arg Leu Arg
100 105 110
Asp Lys Arg Leu Ala Arg Leu Lys Ser Glu Ser Leu Gly Leu Cys Cys
115 120 125
Ser Asn Val Leu Arg Lys Val Arg Leu Leu Leu Thr

130 135 140

<210> 36783
<211> 70
<212> PRT
<213> A.fumigatus

<400> 36783
Leu Tyr Ile Cys Cys Ala Ile Leu Gly Pro Ile Tyr Gln Arg Met Gly
1 5 10 15
Gly Ser Phe Val Thr Tyr Leu Phe Phe Ser Ile Pro Thr Ile Leu Thr
20 25 30
Tyr Phe Leu Ser Ser Lys Leu Ser Ser Tyr Met Ser Ala Thr Phe Val
35 40 45
Leu Phe Pro Pro Thr Ser Ser His Cys Ser Ser Leu Glu Pro Pro Tyr
50 55 60
Pro Pro Cys Ser Leu Gly
65 70

<210> 36784
<211> 216
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36784
Lys Phe Ser Xaa Tyr Ser Ser Pro Glu Asn Ile Ser Pro Arg Pro Pro
1 5 10 15
Phe Arg Ile Leu Phe Gly Gly Arg Arg Val Tyr Leu Pro Leu Ala Val
20 25 30
Pro Gly Lys Gly Arg Tyr Ser Arg Leu Lys Thr Asn Val Leu Asn Gln
35 40 45
His Gly Trp Val Glu Ser Cys Ile Ala Phe Asn His Ser Tyr Thr Asp
50 55 60
Ser Gly Ile Phe Val Phe Ser Ala Ser Cys Ser Leu Thr Arg Thr Thr
65 70 75 80
Glu Met Leu Glu Val Met Cys Arg Glu Leu Gln Ala Leu Thr Leu Asp
85 90 95
Thr Gly Tyr Ser Ala Leu Gln Pro Gln Glu Val Asn Arg Ala Lys Asn
100 105 110
Gln Leu Arg Ser Ser Leu Leu Met Asn Leu Glu Ser Arg Met Val Glu
115 120 125
Leu Glu Asp Leu Gly Arg Gln Val Gln Val His Gly His Lys Val Gly
130 135 140
Val Lys Glu Met Cys Asp Arg Ile Glu Ala Leu Thr Val Asp Asp Leu
145 150 155 160
Arg Arg Val Ala Arg His Val Phe Gly Gly His Val Gln Asn Lys Gly
165 170 175
Gln Gly Thr Gly Ile Pro Thr Val Val Leu Gln Glu Gly Glu Leu Glu
180 185 190
Gly Tyr Lys Leu Arg Pro Phe Pro Trp Glu Glu Ile Gln Glu Arg Ile
195 200 205

Ala Arg Trp Lys Leu Gly Arg Arg
210 215

<210> 36785
<211> 111
<212> PRT
<213> A.fumigatus

<400> 36785
His Phe Asn Leu Thr Leu Glu Ser Glu Ile Ser Val Glu Ser Asp Leu
1 5 10 15
Asp Val Glu Gly Glu Thr Leu Tyr Glu Arg Val Ala Ala Leu Lys Asp
20 25 30
Ile Val Pro Pro Ser Thr Arg Arg Gln Ile Ser Ser Thr Val Ser Thr
35 40 45
Leu Thr Ser Phe Thr Lys Ser Ser Ile Ser Phe Ser Gly Lys Ala Leu
50 55 60
Trp Ile Leu Ser Thr Ser Ala Phe Leu Leu Gly Val Pro Trp Ala Leu
65 70 75 80
Ala Tyr Ala Glu Glu Glu Gln Tyr Val Gln Met Glu Arg Glu Gln Gly
85 90 95
Met Ile Lys Gly Ala Asn Glu Val Cys Leu Arg Met Phe Phe Phe
100 105 110

<210> 36786
<211> 616
<212> PRT
<213> A.fumigatus

<400> 36786
Pro Ser Leu Ala Pro Arg Asp Tyr Ser Gln Tyr Ala Lys Thr Phe Ile
1 5 10 15
Ser Thr Phe Ala Pro Glu Ile Leu Lys Gly Tyr Leu Gln Glu Ile Asp
20 25 30
Lys Trp Val Ser Lys Gly Gln Trp Leu Ser Asn Pro Ala Leu Ala Tyr
35 40 45
Thr Leu Ile Phe Leu Glu Glu Cys Val Lys Pro Lys Ala Met Trp Glu
50 55 60
His Leu Lys Pro His Met Asp Asn Leu Ile Ala His Phe Ile Phe Pro
65 70 75 80
Ile Met Cys Gln Ser Asp Glu Asp Ile Glu Leu Phe Glu Thr Asp Pro
85 90 95
Ser Glu Tyr Leu His Arg Lys Leu Asn Phe Tyr Glu Glu Val Ser Ala
100 105 110
Pro Asp Val Ala Ala Thr Asn Phe Leu Val Ala Leu Thr Lys Asn Arg
115 120 125
Lys Lys Gln Thr Phe Ala Ile Leu Thr Phe Val Asn Ser Val Val Ser
130 135 140
Lys Tyr Glu Ser Ala Pro Asp Asp Gln Lys Leu Pro Arg Glu Lys Glu
145 150 155 160
Gly Ala Leu Arg Met Ile Gly Ser Leu Ala Ser Val Ile Leu Gly Lys
165 170 175
Lys Ser Pro Ile Ala Asn Gln Val Glu Tyr Phe Phe Val Arg His Val
180 185 190
Phe Pro Glu Phe Arg Ser Pro His Gly Phe Leu Arg Ala Arg Ala Cys
195 200 205

```
Asp Thr Leu Glu Lys Phe Glu Gln Leu Asp Phe Gln Asp Pro Asn Asn
    210                 215                 220
Leu Met Ile Ile Tyr Arg Asn Ile Leu Glu Ser Met Thr Asp Pro Glu
225                 230                 235                 240
Leu Pro Val Arg Val Glu Ala Ala Leu Ala Leu Gln Pro Leu Ile Arg
                245                 250                 255
His Asp Ile Ile Arg Thr Ser Met Gln Gln Asn Ile Pro Gln Ile Met
            260                 265                 270
Gln Gln Leu Leu Lys Leu Ala Asn Glu Val Asp Val Asp Ala Leu Ala
        275                 280                 285
Asn Val Met Glu Asp Phe Val Glu Val Phe Ser Ala Glu Leu Thr Pro
    290                 295                 300
Phe Ala Val Ala Leu Ser Glu Gln Leu Arg Asp Thr Tyr Met Arg Ile
305                 310                 315                 320
Val Gly Glu Leu Leu Glu Arg Asn Ala Ala Lys Gly Glu Glu Asp Thr
                325                 330                 335
Tyr Gly Asp Phe Leu Asp Asp Lys Ser Ile Thr Ala Leu Gly Val Leu
            340                 345                 350
Gln Thr Ile Gly Thr Leu Ile Leu Thr Leu Glu Ser Thr Pro Asp Val
        355                 360                 365
Leu Leu His Leu Glu Thr Ile Leu Met Pro Val Ile Ser Ile Thr Leu
    370                 375                 380
Glu Asn Lys Leu Tyr Asp Leu Tyr Asn Glu Val Phe Glu Ile Ile Asp
385                 390                 395                 400
Ser Cys Thr Phe Ala Ser Lys Ser Ile Ser Pro Thr Met Trp Gln Ala
                405                 410                 415
Phe Glu Leu Ile His Lys Thr Phe Lys Ala Gly Ala Glu Leu Tyr Leu
            420                 425                 430
Glu Asp Met Leu Pro Ala Leu Asp Asn Tyr Val Ala Tyr Gly Ser Glu
        435                 440                 445
Met Leu Val Gln Asn Pro Ala Tyr Leu Ala Ala Val Val Gly Met Val
    450                 455                 460
Glu Asp Ile Phe Arg Asp Glu Lys Val Gly Gly Val Asp Arg Ile Cys
465                 470                 475                 480
Gly Cys Lys Leu Ala Glu Thr Val Met Leu Asn Leu Arg Gly Tyr Ile
                485                 490                 495
Asp Gln Tyr Ile Pro Leu Phe Ile Glu Leu Pro Met Arg Val Ile Glu
            500                 505                 510
Ala Gly Glu Ala Arg Thr Lys Ser Tyr Arg Leu His Leu Met Glu Met
        515                 520                 525
Val Ile Asn Ala Ile Tyr Tyr Asn Pro Val Leu Ser Leu Gln Val Leu
    530                 535                 540
Glu Ser Lys Gly Trp Thr Asn Lys Phe Phe Ser Thr Trp Phe Ser Asn
545                 550                 555                 560
Ile Asp Asn Phe Arg Arg Val His Asp Lys Lys Leu Ser Ile Ala Ala
                565                 570                 575
Ile Ser Ser Leu Leu Thr Leu Lys Ala Gly Asp Val Pro Ala Ser Val
            580                 585                 590
Gln Gln Gly Trp Pro Arg Leu Leu Gln Gly Val Thr Arg Leu Phe Gln
        595                 600                 605
Thr Leu Pro Ala Ala Ile Lys Ser
    610                 615
```

<210> 36787
<211> 62
<212> PRT

<213> A.fumigatus

<400> 36787
Glu Asn His Ile Asn Arg Ile Leu Gln Ala Gln Lys Phe Gly Ser Phe
1 5 10 15
Ala Asp Asp Asp Asp Asp Glu Leu Asp Glu Glu Ser Leu Leu Glu Thr
20 25 30
Pro Leu Asp Lys Ile Glu Pro Tyr Gly Met Phe Lys His Val Phe Met
35 40 45
Gly Met Leu Thr Ser Ala Asn Val Val Trp Cys Val Leu Ala
50 55 60

<210> 36788
<211> 70
<212> PRT
<213> A.fumigatus

<400> 36788
Glu His Ile Arg Gly Ala Leu Glu Ser Gln Tyr Glu Arg Ser Asp Gly
1 5 10 15
Leu Gln Tyr Thr Gln Ser Ser Asp Ala Leu Ile Val Gln Lys Val Ser
20 25 30
Ile Cys Val Leu Phe Ala Leu Gly Ser Ile Ser Leu Gln Gln Phe Thr
35 40 45
Asn Asp Thr His Val Arg Ile Thr Glu Leu Phe Ala Glu Ser His Ser
50 55 60
Lys Arg Arg Gln Phe Ser
65 70

<210> 36789
<211> 65
<212> PRT
<213> A.fumigatus

<400> 36789
Gly Val Leu Gly Pro Met Phe Gly Arg Met Gln Ile Tyr Leu Pro Arg
1 5 10 15
Cys Tyr Cys Leu Thr Ser Leu Val Lys Val Val Ser Thr Gly Gly Leu
20 25 30
Ser Asp Ile Thr Ile Gly Asn Leu Arg Leu Asp Met Thr Tyr Glu Ser
35 40 45
Ile Asn Met Gly Met Met Gly Ala Asn Gly Asn Ser Ala Met Thr Glu
50 55 60
Ile
65

<210> 36790
<211> 837
<212> PRT
<213> A.fumigatus

<400> 36790
Arg Gln Glu His Arg Leu Gln Ser Thr Met Arg Ala Lys Arg Asp Leu
1 5 10 15
Arg Thr Gln Cys Arg Asn Glu Lys Glu Arg Ala Gln Ser Gln Leu Glu
20 25 30

```
Phe Arg Val Ala Asn Pro His Cys Phe Ala Gln Pro Ala His Arg Phe
        35                  40                  45
Arg Pro Lys Val Ser Phe Thr Ser Ser Ser Pro Ser Lys Ala Gln Leu
    50                  55                  60
Gln Lys Glu Glu Ala Lys His Gln Lys Gln Asn Ile Asp Ala Ser Ala
65                  70                  75                  80
Lys Ala Asn Arg Ser Leu Leu Met Arg Ile Asn Ser Gly Gly Val Glu
                85                  90                  95
Asp Glu His Lys Asp Lys Leu Lys Arg Glu Val Arg Arg Asn Thr Val
            100                 105                 110
Phe Ile Pro Pro Asp Asp Thr Thr Ile Ala Ser Val Phe Met Ser Leu
        115                 120                 125
Phe Ser Pro Leu Lys Ser Asp Asn Leu Asp His Tyr Val Pro Glu Asp
    130                 135                 140
Thr Glu Ile Asn Ser Leu Glu Ser Gln Ile Val Arg Lys Arg Gln Ala
145                 150                 155                 160
Lys Thr Thr Met Ala Ser Gly Arg Lys Thr Pro Leu Gln Pro Ser Leu
                165                 170                 175
Lys Val Val Gln Arg Ser Ala Met Asn Ile Asp Ile Ala Gly Lys Ile
            180                 185                 190
Thr Gly Lys Glu Asn Ile Pro Pro Gly Glu Met Ile Phe Ser Ser Asn
        195                 200                 205
Asp Lys Gly Leu Trp Lys Ser Asn Thr Glu Asp Lys Phe Leu Asn Ser
    210                 215                 220
Glu Ser Pro Arg Ile Leu Ser Asp Lys Ala Arg Pro Phe Ala Asn Pro
225                 230                 235                 240
Val Thr Glu Arg Leu Ala Lys Val Ala Thr Asn Gln Gly Leu Arg Arg
                245                 250                 255
Ser Val Pro Gly Glu Lys Arg Tyr Asn Ala Arg Ala Ser Val Asn Gly
            260                 265                 270
Ile Gly Ser Lys Met Asp Gly Ile Val Arg Ser Arg Ser Arg Leu Glu
        275                 280                 285
Gly Ala Ala Val Leu Ser Ala Ser Arg Lys Thr Pro Leu Ser Asn Ala
    290                 295                 300
Phe Glu Gln Ser Lys Thr Tyr Lys Met Asn Ala Ser Leu Val Lys Lys
305                 310                 315                 320
Glu Thr Ala Met Thr Asp Phe Ala Leu Ile Ser Asp Asp Ile Val Ser
                325                 330                 335
Pro Ala Met Tyr Glu Asp Arg Trp Leu Val His Gln Glu Ile Val Ile
            340                 345                 350
Thr Gln Leu Ile Asn Arg Leu Phe Asp Arg Thr Asn Gly Gln Val Arg
        355                 360                 365
Tyr Asp Asp Pro Ala Ala Arg Arg His Glu Leu Leu Gln Leu Tyr Gln
    370                 375                 380
Ser Gly Pro Phe Val Glu Leu His Lys Arg Leu Gln Ala Ser Leu Thr
385                 390                 395                 400
Tyr Gly Ser Leu Gly Ile Pro Lys Asp Ala Leu Thr Gln Thr Lys Arg
                405                 410                 415
Leu Lys His Asp Leu Gly Met Lys Arg Lys Phe Leu Asp Ile Trp Leu
            420                 425                 430
Glu Thr Tyr Asp Leu Arg Ala Leu Arg Ala Ala Ala Glu Thr Val Thr
        435                 440                 445
Gly Arg Arg Val Glu Asn Glu Ser Leu Asp Gly Asp Ser His His Phe
    450                 455                 460
Ser Val Glu Thr Thr Ala Asp Lys Glu Lys Ile Leu Arg Arg Lys Leu
465                 470                 475                 480
```

```
Glu Arg Phe Leu Asp Val Phe Leu Val Gln Asn Lys Asp Met Asp Arg
                485                 490                 495
Asp Ser Gln Asp Leu Ser His Ala Gly Ser Asp Met Ile Ser Gln Ala
            500                 505                 510
Tyr Arg Arg Thr Val Leu Arg Ser Ile Met Ile Val Ile Leu Leu Asp
        515                 520                 525
Lys Ala Arg Leu Cys Pro Gly Thr Val Leu Pro Ser Cys Leu Phe Arg
    530                 535                 540
Phe Ser Ser Ser Phe Lys Ser Ser Thr Ala Val Ile Gln Ala Leu Ala
545                 550                 555                 560
Arg Leu Leu Leu Pro Ala Ser Gly Asp Ile Leu Arg Ser Leu Lys His
                565                 570                 575
Leu Asp Cys His Leu Ser Tyr Glu Gln His Gln Leu Gln Glu Tyr Glu
            580                 585                 590
Tyr Gln Leu Ser Asn Leu Ala Val Asp Leu Arg Asp Gly Val Arg Leu
        595                 600                 605
Thr Arg Ile Val Glu Leu Leu Leu Tyr Ser Ser Ala Gly Ala Val Gly
    610                 615                 620
Gly Ser Val Pro Pro Leu Asp Asn Asp Gln Trp Pro Leu Ser Arg Arg
625                 630                 635                 640
Leu Lys Phe Pro Cys Ser Ser Arg Thr Val Lys Gln Phe Asn Val Gln
                645                 650                 655
Ile Ala Leu Asp Ala Leu Arg Leu Ala Pro Asp Ala Ala Pro Leu Val
            660                 665                 670
Arg Asp Val Arg Ala Glu Asp Ile Val Asn Gly His Arg Glu Lys Thr
        675                 680                 685
Ile Ala Leu Leu Trp Gly Leu Val Ser Arg Trp Gly Leu Ser Glu Leu
    690                 695                 700
Ile Asp Trp Asp Asp Met Arg Lys Glu Ile Asp Arg Leu Arg Gln Lys
705                 710                 715                 720
Ala Thr Ser Gln Leu Gly Tyr Gly Gln Val Asn Asp Ala Asn Leu Phe
                725                 730                 735
Lys Glu Lys Ser Pro Lys Asp Gly Ile Thr Asp Asp Asn Glu Ala Ile
            740                 745                 750
Leu Leu Leu Lys Glu Trp Ala Ile Ile Leu Ala His Leu Ser Gly Phe
        755                 760                 765
Gln Leu Glu Asn Leu Ser Thr Ser Phe Ala Asp Gly Arg Ile Tyr Glu
    770                 775                 780
Ala Ile Val Asn Glu Tyr Glu Glu Tyr Ile Leu Gly Asn Val Ala Ser
785                 790                 795                 800
Ser Pro Gly Gln Lys Pro Thr Ser Leu Ala Ala Arg Leu Arg Ala Leu
                805                 810                 815
Gly Cys Ser Ser Gln Phe Gly Glu Leu Ile Ser Arg Leu Gln Pro Arg
            820                 825                 830
Ala Thr Ala Asn Arg
        835
```

<210> 36791
<211> 94
<212> PRT
<213> A.fumigatus

<400> 36791

```
Ala Arg Val Ala Lys Val Leu Arg Ile Thr Ile His Ile Phe Ile Leu
1               5                   10                  15
His Gln Glu Asp Ile Gln Glu Ser Phe Gln Phe Ser Ser Lys Asp Phe
```

```
            20                  25                  30
Phe Leu Ile Cys Ser Arg Phe Asn Arg Glu Met Met Arg Val Ser Ile
        35                  40                  45
Glu Gly Leu Ile Leu Asn Ser Ser Ser Gly Asn Arg Leu Gly Ser Cys
    50                  55                  60
Ser Gln Cys Ser Lys Val Val Arg Phe Gln Pro Asn Ile Gln Glu Leu
65                  70                  75                  80
Pro Leu His Thr Gln Val Met Phe Gln Thr Leu Cys Leu Cys
                85                  90
```

<210> 36792
<211> 134
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (45)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36792

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Thr Asp Gly Gly Cys Asp Tyr Thr Phe Asp Cys Thr Gly Asn Val Gly
1               5                   10                  15
Val Met Arg Ala Ala Met Glu Ala Cys His Lys Asp Trp Gly Glu Ser
            20                  25                  30
Ile Ile Ile Gly Val Ala Ala Ala Gly Gln Glu Ile Xaa Thr Arg Arg
        35                  40                  45
Lys Cys Val Pro His His Leu Val Ala Met Tyr Ser Arg Ser Ile Ala
    50                  55                  60
Phe Gln Leu Val Thr Asp Arg Val Trp Lys Gly Cys Ala Phe Gly Gly
65                  70                  75                  80
Ile Lys Gly Arg Thr Gln Leu Pro Gly Leu Val Asp Asp Tyr Leu Asn
                85                  90                  95
Gly Lys Leu Lys Val Asp Glu Phe Ile Thr His Arg Glu Pro Leu Ser
            100                 105                 110
Arg Ile Asn Thr Ala Phe Glu Gln Met Lys Gln Gly Asp Cys Ile Arg
        115                 120                 125
Cys Val Val Asp Met Ser
    130
```

<210> 36793
<211> 171
<212> PRT
<213> A.fumigatus

<400> 36793

```
Lys Arg Asp Ser His Arg Cys Pro Ser Pro Tyr Thr Asn Gln Pro Gln
1               5                   10                  15
Thr His Gln Thr Lys Lys Gln Lys Gln Lys Arg Gln Asn Asp Pro Arg
            20                  25                  30
Asn Pro Pro Pro Arg Thr Leu Arg Leu His Pro Pro Leu His Ala His
        35                  40                  45
Pro Arg Pro Leu Pro His Pro Pro Pro Pro Gln His Leu Arg Arg Phe
    50                  55                  60
Ala His His His Leu Arg Pro Ala Arg Gly Pro Gln Leu Arg Pro Arg
65                  70                  75                  80
```

```
Leu Arg Arg Leu Gln Asn Pro Gln Thr Arg Val Ser Ser Arg Gly Arg
                85                  90                  95
Pro Arg Pro Lys Arg His Asp Pro Ala Leu His Arg Arg Arg Pro Ile
            100                 105                 110
Gln Pro His Pro Ser Gly Arg Arg Arg Arg Arg Thr Arg Arg Ser His
        115                 120                 125
Arg Pro Ser Arg Ala Gly Ala Leu Gly Arg Leu Glu Arg Arg Pro Leu
    130                 135                 140
Arg Pro Gly Arg Gln Tyr Pro Ala Val Ala Ala Asp Gly Arg Gly Arg
145                 150                 155                 160
Ala Ala Ala Ser Ser Gly Val Arg His Arg Ala
                165                 170
```

<210> 36794
<211> 385
<212> PRT
<213> A.fumigatus

<400> 36794

```
Asp Thr Asp Leu Gln Tyr Lys Arg Gly Thr Ala Thr Ala Ala Leu His
1               5                   10                  15
Pro Ile Gln Ile Asn Leu Lys Pro Thr Arg Gln Arg Asn Lys Ser Lys
            20                  25                  30
Ser Ala Lys Met Thr Leu Glu Ile Pro Leu Pro Glu Pro Phe Ala Ser
        35                  40                  45
Ile Pro Arg Tyr Thr Leu Thr Leu Gly Pro Ser Pro Ile His Leu Leu
    50                  55                  60
Pro Asn Thr Ser Ala Asp Leu His Thr Thr Ile Tyr Ala Gln Arg Glu
65                  70                  75                  80
Asp Leu Asn Ser Ala Leu Val Tyr Gly Gly Tyr Lys Thr Arg Lys Leu
                85                  90                  95
Glu Tyr Leu Leu Ala Asp Ala Leu Ala Gln Asn Ala Thr Thr Leu Leu
            100                 105                 110
Ser Ile Gly Gly Val Gln Ser Asn His Thr Arg Gln Val Ala Ala Ala
        115                 120                 125
Ala Ala His Ala Gly Leu Thr Ala Arg Leu Val Gln Glu His Trp Val
    130                 135                 140
Asp Trp Asn Asp Ala His Tyr Asp Arg Val Gly Asn Ile Gln Leu Ser
145                 150                 155                 160
Arg Leu Met Gly Ala Asp Val Arg Leu His Pro Ala Gly Phe Gly Ile
                165                 170                 175
Glu His Lys Glu Ser Leu Arg Gln Leu Leu Gly Glu Cys Glu Ala Arg
            180                 185                 190
Gly Glu Arg Ala Tyr Tyr Ile Pro Ala Gly Ala Ser Asp His Pro Leu
        195                 200                 205
Gly Gly Leu Gly Phe Ala Arg Trp Ala Phe Glu Val Ala Met Gln Glu
    210                 215                 220
Arg Glu Met Gly Val Phe Phe Asp Val Val Val Val Cys Ala Val Thr
225                 230                 235                 240
Gly Ser Thr Phe Ala Gly Met Ile Ala Gly Phe Lys Leu Leu Glu Arg
                245                 250                 255
Val Gln Pro Gly Ser Arg Lys Arg Arg Val Ile Gly Ile Asp Ala Ser
            260                 265                 270
Ala Arg Pro Ala Glu Thr Arg Ala Gln Val Met Arg Ile Ala Arg Ser
        275                 280                 285
Thr Ala Ala Lys Ile Gly Leu Lys Glu Glu Asp Ile Ser Glu Glu Asp
```

```
    290                 295                 300
Val Val Leu Asn Ala Asn Tyr His Glu Gly Val Tyr Gly Val Pro Gly
305                 310                 315                 320
Glu Gly Thr Ile Lys Ala Met Glu Tyr Ala Ala Ser Lys Asp Ala Phe
                325                 330                 335
Ile Thr Asp Pro Val Tyr Glu Gly Lys Ser Phe Ala Gly Leu Ile Asp
            340                 345                 350
Leu Ala Lys Lys Gly Glu Phe Ala Gly Lys Thr Val Leu Tyr Ala His
        355                 360                 365
Leu Gly Gly Gln Pro Ala Leu Asn Ala Tyr Ser Glu Ile Gly Arg Ala
    370                 375                 380
Lys
385
```

<210> 36795
<211> 330
<212> PRT
<213> A.fumigatus

<400> 36795

```
Gly Asp Gly Arg Asp Glu Ala Leu Ala Gln Tyr Leu Leu Pro Arg Leu
1               5                   10                  15
His Cys Cys Gln Ser Gly Arg Pro Cys Arg Gln Cys His Arg Gly Gln
            20                  25                  30
Gln Gly Phe Leu Gly Ser Arg Arg Ala Tyr Pro Ala Gly His Thr Val
        35                  40                  45
Ser Ala Ser Ser Ala Ser Cys His Arg Asp Ala Asn Ile Val Asn Ser
    50                  55                  60
Asp Phe Lys Ala Gln Asn Gly Leu Asp Lys Val Ile Val Met Trp Thr
65                  70                  75                  80
Ala Asn Thr Glu Arg Tyr Ala Asp Ile Ile Pro Gly Val Asn Asp Thr
                85                  90                  95
Ala Asp Asn Leu Leu Asn Ala Ile Lys Ala Gly His Gln Glu Val Ala
            100                 105                 110
Pro Ser Thr Val Phe Ala Val Ala Cys Ile Leu Glu Asn Val Pro Phe
        115                 120                 125
Ile Asn Gly Ser Pro Gln Asn Thr Phe Val Pro Gly Ala Ile Gln Leu
    130                 135                 140
Ala Glu Lys His Gly Ala Phe Ile Gly Gly Asp Asp Phe Lys Ser Gly
145                 150                 155                 160
Gln Thr Lys Met Lys Ser Ala Leu Val Asp Phe Leu Ile Asn Ala Gly
                165                 170                 175
Ile Lys Leu Thr Ser Ile Ala Ser Tyr Asn His Leu Gly Asn Asn Asp
            180                 185                 190
Gly Lys Asn Leu Ser Ser Gln Lys Gln Phe Arg Ser Lys Glu Ile Ser
        195                 200                 205
Lys Ser Asn Val Val Asp Asp Met Val Ala Ala Asn His Leu Leu Tyr
    210                 215                 220
Lys Glu Gly Glu His Pro Asp His Thr Val Val Ile Lys Tyr Met Pro
225                 230                 235                 240
Ala Val Gly Asp Asn Lys Arg Ala Leu Asp Glu Tyr Tyr Ala Glu Ile
                245                 250                 255
Phe Met Gly Gly His Gln Thr Ile Ser Leu Phe Asn Ile Cys Glu Asp
            260                 265                 270
Ser Leu Leu Ala Ser Pro Leu Ile Ile Asp Leu Val Val Ile Ala Glu
        275                 280                 285
```

```
Met Met Thr Arg Ile Thr Trp Lys Ser Ala Asp Asp Glu Glu Tyr Lys
    290                 295                 300
Gly Phe His Ser Val Leu Ser Val Leu Ser Tyr Met Leu Lys Val Phe
305                 310                 315                 320
Asn Leu Leu Ser Phe Leu Gly His Ile Asp
                325                 330
```

<210> 36796
<211> 383
<212> PRT
<213> A.fumigatus

<400> 36796

```
Thr Ser Lys Ser Cys Ser Arg Phe Glu Arg Asp Leu Met Ala Val Ile
1               5                  10                  15
His Ser Thr Tyr Val Pro Asp Gln Tyr Thr Leu Lys Ser Leu Arg Ser
            20                  25                  30
Val Pro Met Leu Leu Arg Pro Thr Asn Leu Ala Ile Arg Ile Gln Ser
        35                  40                  45
Arg Leu Thr Pro Lys Met Gly Val Lys His Arg Leu Pro Arg Lys Leu
    50                  55                  60
Ala Leu Leu Arg Gln Ile Asp Gln Pro Arg Glu Ala Leu Pro Phe Val
65                  70                  75                  80
His Arg Val Arg Asn Glu Arg Ile Phe Ala Gly Gly Ile Leu His Ser
                85                  90                  95
Leu Asp Gly Pro Leu Ala Arg His Pro Val Asn Pro Leu Met Val Ile
            100                 105                 110
Arg Ile Gln Asn His Ile Leu Leu Gly Asp Ile Leu Leu Leu Gln Thr
        115                 120                 125
Asn Leu Arg Ser Cys Thr Pro Arg Asn Pro His His Leu Arg Pro Arg
    130                 135                 140
Leu Arg Arg Pro Arg Gly Arg Ile Asn Pro Asp Asn Pro Pro Phe Ser
145                 150                 155                 160
Thr Thr Arg Leu His Pro Leu Gln Gln Leu Lys Pro Ser Asn His Ala
                165                 170                 175
Arg Lys Arg Thr Pro Arg His Arg Thr His His His His Ile Glu Glu
            180                 185                 190
His Pro His Leu Ala Leu Leu His Arg His Leu Lys Arg Pro Pro Arg
        195                 200                 205
Lys Pro Gln Pro Ala Glu Arg Met Val Arg Arg Thr Arg Arg Asp Val
    210                 215                 220
Val Arg Ala Leu Ala Ala Arg Leu Ala Leu Ala Gln Gln Leu Ala Gln
225                 230                 235                 240
Thr Leu Phe Met Leu Asp Ala Glu Pro Arg Trp Met Gln Pro His Val
                245                 250                 255
Arg Ala His Gln Pro Arg Gln Leu Asp Ile Ala Tyr Pro Val Val Met
            260                 265                 270
Gly Val Val Pro Val Asp Pro Val Leu Leu His Glu Thr Gly Gly Glu
        275                 280                 285
Thr Gly Val Cys Gly Gly Gly Gly Asp Leu Thr Gly Val Val Gly Leu
    290                 295                 300
Asp Ala Ala Asp Gly Glu Gln Gly Arg Gly Val Leu Gly Glu Gly Val
305                 310                 315                 320
Arg Glu Lys Ile Leu Glu Phe Ala Gly Phe Val Ala Ser Val Asp Glu
                325                 330                 335
Gly Gly Val Glu Val Leu Ala Leu Gly Val Asp Gly Gly Val Gln Ile
```

```
            340                 345                 350
Gly Gly Gly Val Gly Glu Glu Val Asp Gly Gly Gly Ala Glu Gly Glu
        355                 360                 365
Arg Val Ala Gly Asp Gly Gly Glu Gly Phe Trp Glu Gly Asp Phe
    370                 375                 380
```

<210> 36797
<211> 277
<212> PRT
<213> A.fumigatus

<400> 36797

```
His Thr Val Phe Val Gly Val Thr Thr Arg Ser Thr Ala Gly Ala His
1               5                  10                  15
Pro Leu Val Val Gly His Arg Ile Phe His Ser Thr Ser Asn Lys Ser
            20                  25                  30
Leu Asp Leu Ser Ala Ile Ser Asp Ala Met Ala Pro His Ala Thr Ser
        35                  40                  45
Asp Ala Val Ala Asn Gly Ala Val Asn Gly Ser Ala Arg Thr Thr Thr
    50                  55                  60
Ala Pro Leu Phe Thr Val Asn Ser Pro Asn Val Glu Tyr Thr Asp Asn
65                  70                  75                  80
Glu Ile Lys Ser Arg Tyr Ala Tyr His Thr Thr Asp Ile Thr Arg Thr
                85                  90                  95
Ala Glu Gly Lys Met Val Ala Thr Pro Lys Val Thr Asn Tyr Gln Phe
            100                 105                 110
Lys Val Asp Arg Lys Val Gly Lys Val Gly Met Met Leu Val Gly Trp
        115                 120                 125
Gly Gly Asn Asn Gly Ser Thr Val Thr Ala Gly Ile Leu Ala Asn Arg
    130                 135                 140
Arg Arg Leu Val Trp Glu Thr Arg Glu Gly Glu Arg Ala Ala Asn Tyr
145                 150                 155                 160
Tyr Gly Ser Leu Val Met Ser Ser Thr Val Lys Leu Gly Thr Asp Ser
                165                 170                 175
Lys Thr Gly Glu Glu Ile Asn Ile Pro Phe His Asp Met Leu Pro Met
            180                 185                 190
Ile His Pro Asn Asp Leu Val Ile Gly Gly Trp Asp Ile Ser Ser Met
        195                 200                 205
Asn Leu Ala Asp Ala Met Asp Arg Ala Gln Val Leu Glu Pro Thr Leu
    210                 215                 220
Lys Gln Leu Val Arg Lys Glu Met Ala Glu Met Lys Pro Leu Pro Ser
225                 230                 235                 240
Ile Tyr Tyr Pro Asp Phe Ile Ala Ala Asn Gln Glu Asp Arg Ala Asp
                245                 250                 255
Asn Val Ile Glu Gly Asn Lys Ala Ser Trp Ala His Val Glu Arg Ile
            260                 265                 270
Gln Gln Asp Ile Arg
        275
```

<210> 36798
<211> 103
<212> PRT
<213> A.fumigatus

<400> 36798

```
Asp Arg Pro Ala Ala Ala Lys Val Ser Gly Gly Ser Val Gln Arg Ser
```

```
1               5                   10                  15
Cys Trp Arg Asp Gly Gly Ala Asp His Gly Glu Asn Pro Glu Arg Pro
            20                  25                  30
Arg Gly Lys Ser Leu Gln Pro Phe Ser Leu Ile Leu Ala Leu Val Leu
        35                  40                  45
Thr Cys Cys Asp Gln Ile Met Ser Ile Leu Gln Asp Pro Val Met Gln
    50                  55                  60
Ser Ile Leu Gln Gln Ala Lys Ser Asp Pro Ala Ala Leu Gln Glu His
65                  70                  75                  80
Met Lys Asn Val Gln Val Arg Thr Lys Ile Gln Lys Leu Met Ala Ala
                85                  90                  95
Gly Val Ile Arg Leu Gly Arg
            100
```

<210> 36799
<211> 360
<212> PRT
<213> A.fumigatus

```
<400> 36799
Arg Gln Arg Ala Thr Arg Pro Ser Leu Leu Arg Thr Thr Leu Leu Leu
1               5                   10                  15
Cys Thr Tyr Tyr Val Ser Met Leu Pro Arg Ser Phe Gln Arg Gly Cys
            20                  25                  30
Thr Gly Phe Thr Arg Lys Lys Thr Asn Leu Phe Val Pro Arg Asn Ser
        35                  40                  45
Glu Lys Phe Thr Gln Ala Ile Glu Leu Glu Pro Ser Asn His Ile Leu
    50                  55                  60
Tyr Ser Asn Arg Ser Ala Val Tyr Ala Ala Gln Ser Asp Tyr Gln Lys
65                  70                  75                  80
Ala Leu Asp Asp Ala Asn Lys Ala Ile Glu Ile Lys Pro Asp Trp Ser
                85                  90                  95
Lys Gly Tyr Ser Arg Lys Gly Ala Ala Cys Arg Gly Leu Gly Asp Leu
            100                 105                 110
Leu Gly Ala His Asp Ala Tyr Glu Glu Ala Leu Lys Leu Asp Pro Ser
        115                 120                 125
Asn Asp Gln Ala Lys Ser Gly Leu Asn Ala Val Lys Arg Ala Ile Asp
    130                 135                 140
Gly Glu Ala Arg Ala Asp Gly Val Asn Pro Ala Ala Gly Leu Gly Gly
145                 150                 155                 160
Ile Phe Asn Asp Pro Gln Met Phe Gln Lys Leu Ala Ser Asn Pro Lys
                165                 170                 175
Thr Ser His Leu Leu Ala Asp Ala Asp Phe Met Ala Lys Leu Gln Arg
            180                 185                 190
Leu Gln Gln Asn Pro Asn Ser Met Ser Pro Gln Glu Ile Gln Asp Pro
        195                 200                 205
Arg Phe Leu Gln Val Met Ser Val Leu Leu Gly Ile Asp Met Ser Phe
    210                 215                 220
Gly Ala Pro Pro Glu Ala Ala Gly Ser Ser Arg Ala Ala Ala Glu Ala
225                 230                 235                 240
Glu Glu Asp Val Pro Met Pro Asp Ala Lys Pro Ala Ala Ala Glu Lys
                245                 250                 255
Lys Lys Glu Pro Glu Pro Ala Pro Gln Pro Glu Pro Glu Pro Glu Asp
            260                 265                 270
Glu Glu Thr Ile Ala Lys Lys Lys Ala Gln Glu Ala Gly Asp Ala Glu
        275                 280                 285
```

```
Lys Lys Ile Gly Asn Asp Phe Tyr Lys Lys Lys Gln Phe Asp Glu Ala
    290                 295                 300
Ile Glu His Tyr Thr Lys Ala Trp Glu Leu Asn Lys Asp Ile Thr Tyr
305                 310                 315                 320
Leu Asn Asn Ile Gly Ala Ala Lys Phe Glu Lys Gly Asp Leu Gln Gly
                325                 330                 335
Ala Ile Glu Ile Cys Gln Lys Ala Val Glu Glu Gly Arg Glu Leu Arg
            340                 345                 350
Ala Asp Phe Lys Val Ile Ala Lys
        355                 360
```

<210> 36800
<211> 223
<212> PRT
<213> A.fumigatus

<400> 36800

```
Val Leu Gln Thr Ser Ser Phe Arg Leu Thr Gln Leu Thr Met Cys Leu
1               5                   10                  15
Gln Arg Ala Phe Ala Arg Ile Gly Thr Ala Tyr Glu Lys Leu Gly Asp
            20                  25                  30
Phe Thr Gln Ala Ile Glu Tyr Tyr His Lys Ser Leu Thr Glu His Arg
        35                  40                  45
Thr Pro Asp Ala Leu Thr Lys Leu Arg Asn Ala Glu Lys Ala Lys Val
    50                  55                  60
Lys Ala Glu Lys Glu Ala Tyr Ile Asp Pro Val Glu Ala Glu Lys Ala
65                  70                  75                  80
Arg Glu Leu Gly Gln Lys Lys Phe Gln Glu Ala Asp Trp Pro Gly Ala
                85                  90                  95
Val Glu Ala Phe Thr Glu Met Thr Lys Arg Ala Pro His Asp Pro Arg
            100                 105                 110
Gly Phe Ser Asn Arg Ala Ala Ala Leu Ile Lys Leu Met Ala Phe Pro
        115                 120                 125
Gln Ala Val Gln Asp Cys Asp Glu Ala Ile Arg Arg Asp Pro Lys Phe
    130                 135                 140
Ile Arg Ala Tyr Ile Arg Lys Ser Gln Ala Leu Val Ala Met Lys Glu
145                 150                 155                 160
Tyr Ser Lys Ala Leu Asp Ala Cys Thr Glu Ala Ala Glu Gln Asp Asp
                165                 170                 175
Gly Thr His Thr Arg Glu Ile Asp Gln Gln Gln Gln Lys Cys Leu Glu
            180                 185                 190
Ala Gln Phe Ser Ala Arg Ala Gly Glu Thr Glu Glu Gln Thr Met Glu
        195                 200                 205
Arg Ile Gln Asn Asp Pro Glu Val Ser His Phe Ser Leu Phe His
    210                 215                 220
```

<210> 36801
<211> 149
<212> PRT
<213> A.fumigatus

<400> 36801

```
Val Pro Phe Ile Ser Leu Gly Phe Ser Gly Ala Gly Ser Met Ser Gln
1               5                   10                  15
Gln Ala Glu Pro Lys Ile Thr Ala Asp Pro Glu Val Gln Gln Ser Pro
            20                  25                  30
```

```
Ile Tyr Asn Gly Gln Gly Thr Glu Glu Asp Pro Phe Ile Val Glu Phe
        35                  40                  45
Gln Lys Asp Asp Pro Gly Asn Pro Trp Asn Trp Ser Gln Phe Arg Lys
    50                  55                  60
Trp Phe Ile Thr Ala Ile Val Thr Phe Ser Val Phe Ala Ile Thr Phe
65                  70                  75                  80
Thr Ser Ser Ala Tyr Ala Ala Ser Ala Asn Glu Leu Ile Ala Asp Phe
                85                  90                  95
Ser Ile Ser Thr Glu Val Phe Thr Val Gly Leu Ser Leu Phe Val Leu
            100                 105                 110
Gly Phe Ala Ile Gly Pro Ala Val Trp Gly Pro Leu Val Ser Ser Ile
        115                 120                 125
Leu Ser Glu Ala Leu Asn Arg Pro Ala Asp Ser Pro Phe Leu Phe Ser
    130                 135                 140
Glu Ser Pro Ser Ser
145

<210> 36802
<211> 423
<212> PRT
<213> A.fumigatus

<400> 36802
Pro Cys Leu Val Arg Ser Glu Leu Tyr Gly Arg Gln Ala Leu Trp Ile
1               5                   10                  15
Val Ser His Val Ala Met Val Ala Phe Ile Gly Gly Ser Ala Gly Ser
            20                  25                  30
His Asn Val Ala Thr Leu Leu Val Leu Arg Phe Phe Ser Gly Thr Phe
        35                  40                  45
Gly Gly Ser Pro Leu Val Asn Ser Gly Gly Ala Ile Ala Asp Ile Phe
    50                  55                  60
Pro Pro Ala Gln Arg Gly Leu Ala Met Thr Leu Tyr Cys Val Ala Pro
65                  70                  75                  80
Phe Leu Gly Pro Ile Leu Gly Pro Ile Val Gly Gly Phe Val Ser Glu
                85                  90                  95
Asn Val Gly Trp Arg Trp Val Gln Gly Val Cys Cys Ile Phe Ile Gly
            100                 105                 110
Gly Ile Gly Ile Ile Gly Val Ile Phe Val Pro Glu Thr Tyr Gly Pro
        115                 120                 125
Val Leu Leu Ile Arg Arg Ala Ser Arg Leu Ser Gln Ala His Gly Lys
    130                 135                 140
Val Tyr Ile Ser Ile Leu Glu Lys Asn Gln Gly Lys Lys Lys Pro Ser
145                 150                 155                 160
Glu Val Phe Gln Arg Ala Leu Ile Arg Pro Trp Val Leu Leu Phe Arg
                165                 170                 175
Glu Pro Ile Val Leu Val Ala Ser Leu Tyr Met Ala Ile Ile Tyr Gly
            180                 185                 190
Thr Val Tyr Met Phe Met Ser Ala Met Pro Ile Val Tyr Asn Glu Gln
        195                 200                 205
Arg Gly Trp Ser Glu Gly Ile Gly Gly Leu Ala Phe Met Gly Ile Ala
    210                 215                 220
Val Gly Ile Ile Ile Gly Leu Ala Tyr Ala Ile Tyr Asp Asn Asn Arg
225                 230                 235                 240
Arg Tyr Ala Asn Leu Leu Leu Ser Asn Ala Ala Thr Ala Glu Ser Arg
                245                 250                 255
Leu Pro Pro Ala Ile Val Gly Ala Val Ala Leu Pro Val Gly Met Phe
```

```
            260                 265                 270
Ala Phe Ala Trp Thr Asn Thr Pro Arg Ile His Trp Ser Val Ser Ile
        275                 280                 285
Ile Leu Ser Ala Pro Phe Gly Phe Gly Cys Val Leu Val Ile Leu Pro
    290                 295                 300
Ile Val Asn Tyr Leu Ile Asp Ala Tyr Thr Ile Tyr Ala Ala Ser Val
305                 310                 315                 320
Leu Ala Ala Ala Ala Ile Phe Arg Ser Ile Val Gly Ala Val Phe Pro
                325                 330                 335
Leu Phe Thr Thr Gln Met Tyr Gly Ser Leu Gly Ile His Trp Ala Ser
            340                 345                 350
Ser Leu Pro Ala Phe Leu Thr Val Ala Cys Met Pro Phe Pro Phe Val
        355                 360                 365
Met Tyr Arg Tyr Gly Gly Ala Leu Arg Met Lys Cys Lys Tyr Ala Phe
    370                 375                 380
Glu Ala Ala Gly Met Met Arg Arg Met Gln Met Gln Gln Val Pro Ala
385                 390                 395                 400
Pro Ala Lys Glu Glu Glu Asp Ser Pro Ser Glu Trp Gly Thr Ala Arg
                405                 410                 415
Phe Gly Leu Asp Gly Cys Gln
            420
```

<210> 36803
<211> 317
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (47)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36803

```
Pro Trp Asp Ile Val Asn Phe Lys Ala Arg Leu Arg Ser Ala Val Asn
1               5                   10                  15
Gln Cys Phe Ser Gln Pro Tyr Ile Gln Leu Gly Arg Arg Val Val Arg
            20                  25                  30
Val Glu Thr Asp Val Val Met Leu Thr His Leu Ile Leu Tyr Xaa Thr
        35                  40                  45
Thr Ser Val Pro Ser Ala Leu Tyr Leu Tyr Tyr His Phe Thr Trp Thr
    50                  55                  60
His Gly Val Leu His Trp Ile Met Gln Ser Tyr Tyr Val Gly Thr Tyr
65                  70                  75                  80
Thr Leu Met Met His Gln His Ile His Met Gly Gly Ile Leu Ala Lys
                85                  90                  95
Arg Phe Trp Leu Val Asp Ser Leu Phe Pro Tyr Ile Thr Asn Pro Leu
            100                 105                 110
Met Gly His Thr Trp Asn Ser Tyr Tyr Tyr His His Val Lys His His
        115                 120                 125
His Val Glu Gly Asn Gly Pro Asp Asp Leu Ser Ser Thr Val Arg Tyr
    130                 135                 140
Gln Arg Asp Glu Leu Ser Asp Phe Leu Cys Tyr Leu Gly Arg Phe Leu
145                 150                 155                 160
Phe Leu Val Trp Phe Glu Leu Pro Ser Tyr Phe Phe Arg Lys Gly Gln
                165                 170                 175
Val Leu Gln Gly Leu Lys Ala Ala Ser Trp Glu Ile Gly Asn Tyr Leu
```

```
            180                 185                 190
Phe Ile Tyr Gly Met Tyr Arg Phe Val Asn Ala His Ala Thr Leu Phe
        195                 200                 205
Val Phe Ile Leu Pro Leu Phe Leu Leu Arg Leu Gly Leu Met Ile Gly
    210                 215                 220
Asn Trp Gly Gln His Ala Phe Val Asp Glu Thr Asp Pro Asn Ser Asp
225                 230                 235                 240
Phe Arg Ser Ser Ile Thr Leu Ile Asp Val Pro Val Arg Phe Pro Ala
                245                 250                 255
Ser Tyr Leu Thr Thr Ala Ala Asp Asn Ser Arg Val Ile Ala Ser Ala
            260                 265                 270
Ser Met Met Ala Thr Thr Pro Leu Thr Ile Ser Thr Pro Ala Val Thr
        275                 280                 285
Gly Ala Ser Thr Arg Trp Arg Phe Ser Ser Lys Lys Thr Ala Thr Pro
    290                 295                 300
Ala Ser Met Arg Trp Ser Ser Ala Ile Ser Thr Ile Ser
305                 310                 315
```

<210> 36804
<211> 230
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (21),(22)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36804

```
Ile Ile Thr Asn His Lys Pro His Gly Arg Leu Ile Thr Ser Arg Ser
1               5                   10                  15
Ala Leu Gly Ala Xaa Xaa Arg Val Cys Ser Ala Gln Arg Ser Cys Ser
            20                  25                  30
Gly Ser Leu Met Lys Leu Glu Glu Gly Asp Phe Asp His Asn Gly Thr
        35                  40                  45
Asn Ser Ser Asn Arg Ala Ala Gly Asn Arg Thr Arg Glu Pro Leu Ala
    50                  55                  60
Ala Lys Asp Ser Leu Arg Leu Arg Ile Thr Asp Ile Leu Arg Ala Leu
65                  70                  75                  80
Ser Gly Arg Ala Asp Pro Glu Gly Ala Pro Val Gln Glu Pro Gln Ala
                85                  90                  95
Pro Val Asp Pro Leu Ser Pro Phe Gln Val Ser Met Pro Phe Ala Asn
            100                 105                 110
Val Pro Asp Gly Phe His Asp Leu Asp Val Leu Pro Ile Leu Ser Asn
        115                 120                 125
Gly Leu Ser Pro Asn Phe Trp Gln Phe Leu Asp Phe Pro Pro Pro Pro
    130                 135                 140
Phe Asp Ser His Pro Lys Glu Val Ser Leu Ala Thr Gln Gly Asp Pro
145                 150                 155                 160
Pro Gly Ala Phe Gly Leu Gly Pro Ser Gln Phe Pro Asp Ser Tyr Ser
                165                 170                 175
Ser Thr Pro Arg Thr Arg Met Thr His Thr Ser Pro Ser Leu Gln Ser
            180                 185                 190
Glu Ser Ile Gly Leu Gly Gly Gly Ser Asp Ser Ala Thr Thr Pro Ser
        195                 200                 205
Ser Ala Asp Ala Tyr Val Ala Ala Lys Phe Tyr Tyr Ala Met Gly Asp
```

```
    210                 215                 220
Gly Thr Leu Ala Pro Met
225                 230

<210> 36805
<211> 65
<212> PRT
<213> A.fumigatus

<400> 36805
Trp Leu Gly Leu Val Ile Asp His Ala Thr Ala Cys Arg Gly Tyr Ala
1               5                  10                  15
Gly Val Asn Ser Leu Ile Leu Ile Tyr Ala Val Ser Phe Val Ile Ala
            20                  25                  30
Ala Pro His Gly Tyr Ala Ala Tyr Asn Tyr Trp Gly Lys Ser Arg Leu
        35                  40                  45
Ala Phe Leu Phe Thr Thr Glu Leu Asp Gly Ser Ala Leu Ser Val Ser
    50                  55                  60
Asn
65

<210> 36806
<211> 68
<212> PRT
<213> A.fumigatus

<400> 36806
Gln Ile Phe Glu Arg Ala Met Asp Thr Ala Asn Glu Asp Leu Asp Leu
1               5                  10                  15
Thr Tyr Arg Asp Leu Ala Ile Arg Glu Glu Gln Asp Leu Gly His Cys
            20                  25                  30
Val Gly Gly Met Glu Ile Arg Val Val His Arg Arg Gly Arg Leu Val
        35                  40                  45
Glu Lys Thr Asp Gly Gly Gln Leu Ala Trp Asp Pro Val Tyr Ala Ala
    50                  55                  60
Leu Gly Glu Gly
65

<210> 36807
<211> 330
<212> PRT
<213> A.fumigatus

<400> 36807
Ala Ser Arg Pro Thr Lys Cys His Gly Gly His Glu Arg Ala Arg Glu
1               5                  10                  15
Lys Asn Ser Phe Ser Gly Ser Ala Cys Thr Asn Phe Ala Lys Thr Arg
            20                  25                  30
His Ser Thr Ser Ser Thr Thr Gly Ala Asn Ala Thr Ser Ala Lys Asp
        35                  40                  45
Gln Thr Ala Lys Arg Thr Ser Ala Ala Arg Arg Arg Arg Ser Pro Thr
    50                  55                  60
Ala Lys Ser Ala Cys Ala Arg Ser Ser Gln Arg Arg Ala Arg Ala Leu
65                  70                  75                  80
Thr Ser Ser Thr Arg Ser Cys Trp Arg Gly Leu Gly Ala Ala Arg Arg
                85                  90                  95
```

```
Gly Arg Arg Arg Cys Met Ile Arg Val Pro Gly Arg Met Arg Cys Ser
            100                 105                 110
Arg Trp Arg Leu Ser Arg Gly Arg Ser Trp Tyr Ala Arg Asp Ala Val
        115                 120                 125
Val Glu Pro Gln Ser Glu Leu Val Pro Val Gly Lys Arg Ala Thr Asp
    130                 135                 140
Val Tyr Leu Glu Glu Asn Leu Lys Gly Leu Ile Arg Met Pro Asp Gly
145                 150                 155                 160
Thr Phe Ala Pro Asn Pro Glu Tyr Gln Ile Asn Gln Ala Ala Ile Asp
                165                 170                 175
Glu Ala Glu Ala Lys Lys Ala Glu Phe Glu Ser Tyr Val Arg Lys Ala
            180                 185                 190
Glu Glu His Val Glu Ala Val Lys Arg Ser Cys Arg His Met Cys Leu
        195                 200                 205
Gly Gly Lys Phe Val Phe Val Asp Leu Ala Gly Ser Glu Tyr Tyr His
    210                 215                 220
Asp Lys Arg Thr Val Ser Thr Cys Arg Ala Lys Gln Thr Pro Gln Glu
225                 230                 235                 240
Gln Gln Glu Gly Arg Gln Ile Asn Thr Asp Pro Leu Ser Leu Lys Glu
                245                 250                 255
Val Ile Arg Ala Met Ala Gln Lys Gln Ser Arg Ile Pro Phe Arg Ser
            260                 265                 270
Ser Pro Leu Thr Met Val Leu Arg Glu His Phe Leu Thr Gly Glu Gly
        275                 280                 285
Asp Gly Gly Phe Ser Ala Met Ile Leu Thr Ala Ser Pro Ser Ser Glu
    290                 295                 300
Gln Tyr Thr Ala Thr Ile Asp Thr Leu Lys Tyr Gly Asn Leu Ile Gly
305                 310                 315                 320
Val Ala Gly Glu His Gly Lys Gly Arg Lys
                325                 330
```

<210> 36808
<211> 227
<212> PRT
<213> A.fumigatus

<400> 36808

```
Leu Lys Phe Lys Leu Ile Pro Cys Ser Ser Ala Pro Glu Arg Ala Lys
1               5                   10                  15
Lys Ile Thr Ser Met Gln Ser Ile Lys Val Phe Val Arg Trp Arg Pro
            20                  25                  30
Leu Ala Pro Ser Glu Ala Asn Thr Pro Glu Ile Ala Arg Thr Gln His
        35                  40                  45
Ala His Pro Thr Ser Asn Thr Ser Ala Leu Ser Leu Thr Pro Pro Pro
    50                  55                  60
Ala His Lys Leu Ser Arg Pro Trp Lys Ser Glu Ser Ala Phe Thr Arg
65                  70                  75                  80
Ile Phe Thr Ala Ser Asp Asn Asn Lys Ala Val Phe Glu Ala Val Val
                85                  90                  95
Ala Pro Thr Leu Pro Arg Val Leu Asn Gly Gln Ser Cys Asn Phe Phe
            100                 105                 110
Ala Tyr Gly His Ser Gly Ser Gly Lys Ser His Thr Ile Ile Gly Tyr
        115                 120                 125
Asp Phe Glu His Pro Asp Glu Phe Gly Leu Cys Leu Ser Ala Ala Arg
    130                 135                 140
Ala Leu Tyr Glu His Leu Asp Gln Arg Asn Ala Thr Ala Gly Met Asn
```

```
145                 150                 155                 160
Glu Pro Glu Lys Lys Ile Pro Ser Arg Ala Pro His Val Arg Thr Ser
                165                 170                 175
Gln Lys His Gly Ile Arg Pro Pro Gln Arg Gln Val Gln Met Pro His
            180                 185                 190
Pro Arg Arg Thr Arg Arg Gln Asn Ala Pro Pro Arg Arg Asp Gly Asp
        195                 200                 205
Ala Arg Arg Arg Gln Ser Pro Arg Ala Pro Asp Arg His Lys Gly Val
    210                 215                 220
Leu Glu Leu
225
```

<210> 36809
<211> 163
<212> PRT
<213> A.fumigatus

<400> 36809

```
Thr Ser Pro Arg Lys Lys Phe Leu Leu Gly Leu Arg Met Tyr Glu Leu
1               5                   10                  15
Arg Lys Asn Thr Ala Phe Asp Leu Leu Asn Asp Arg Cys Lys Cys His
            20                  25                  30
Ile Arg Glu Gly Pro Asp Gly Lys Thr His Leu Arg Gly Glu Thr Glu
        35                  40                  45
Thr Leu Ala Asp Gly Lys Val Arg Val Arg Pro Ile Val Thr Lys Ala
    50                  55                  60
Cys Ser Ser Phe Asp Glu Phe His Ala Gln Leu Leu Ala Gly Ile Gly
65                  70                  75                  80
Arg Arg Ala Thr Gly Ser Ser Thr Val His Asp Gln Ser Ser Arg Thr
                85                  90                  95
His Ala Val Phe Glu Val Glu Ile Val Thr Arg Ala Leu Leu Val Cys
            100                 105                 110
Glu Gly Arg Gly Gly Gly Ala Ala Ile Gly Ala Cys Ser Cys Trp Glu
        115                 120                 125
Ala Arg Asp Gly Cys Leu Ser Gly Gly Glu Phe Glu Gly Val Asp Pro
    130                 135                 140
Asp Ala Gly Trp His Val Cys Ala Gln Ser Gly Val Ser Asp Gln Pro
145                 150                 155                 160
Gly Gly Asp
```

<210> 36810
<211> 303
<212> PRT
<213> A.fumigatus

<400> 36810

```
Arg Ser Cys Val Asp Asn Ala Gly Val Phe Trp Arg Gln Ala Ser Arg
1               5                   10                  15
Val Arg Ala Phe Arg Thr Gly Gln Asp His Arg Gly Arg His Gln Gln
            20                  25                  30
Gln Ala Asn Ser Arg Ala Trp Tyr Val Thr Leu Gly Cys Ala Ala Glu
        35                  40                  45
Val Pro Leu Ala Asn Ser Thr Val Gln Val Ala Leu Leu Pro Leu Phe
    50                  55                  60
Pro Glu Ser Pro Gln Leu Cys Ser Arg Ser His Cys Leu Arg Asn Leu
```

```
65                  70                  75                  80
Met Val Cys Pro Ser Ser Arg His Ile Cys Pro Ser Asp Met Thr Ala
                85                  90                  95
Glu Trp Gln Ser Leu Val Phe Ala Gln Glu Ile Pro Tyr Ile Val Ala
            100                 105                 110
Arg Leu Ser Ser Leu Val Phe Met Gly Glu Lys Val Cys Arg Asp Lys
        115                 120                 125
Glu Trp Leu His Val Ser Val Asn Tyr Thr Ile Asp Ala Phe Gly Ala
    130                 135                 140
Ala Arg Glu Leu Arg Leu Trp Pro Ser Val Thr Gln Pro Leu Val His
145                 150                 155                 160
Trp Phe Leu Pro Ser Thr Arg Arg Val Arg Lys His Ile Ser Val Ala
                165                 170                 175
Lys Lys Ile Val Gln Lys Glu Ile Glu Lys Arg Glu Leu Ile Arg Gln
            180                 185                 190
Gly Lys Leu Leu Glu Tyr Ser Pro Pro Lys Pro Asn Asp Ala Leu Asp
        195                 200                 205
Trp Phe Arg Glu Val Ala Ala Gly Arg Pro Tyr Asp Ile Thr Lys Ser
    210                 215                 220
Gln Ile Thr Leu Ser Leu Ala Ala Ile His Thr Thr Ser Asn Leu Leu
225                 230                 235                 240
Thr Asn Ile Met Tyr Asp Leu Ile Ala Tyr Gln Glu Tyr Ile Gln Pro
                245                 250                 255
Leu Arg Asp Glu Ile Val Ala Val Val Lys Glu Glu Gly Cys Leu Lys
            260                 265                 270
Lys Thr Ser Leu Thr Lys Leu Lys Leu Met Asp Ser Phe Ile Lys Glu
        275                 280                 285
Thr Gln Arg Leu Asn Pro Val Ser Ile Ser Lys Arg Phe Ala Thr
    290                 295                 300
```

<210> 36811
<211> 95
<212> PRT
<213> A.fumigatus

<400> 36811

```
Ser Tyr Pro Met Pro Phe Leu Leu Gly Val Val Ser Asn Glu Asp Ser
1               5                   10                  15
Arg Ser Phe Leu Ile Phe Val Asn Thr Ile Leu Ile Ser Ser Ser Leu
            20                  25                  30
Asn Ser Leu Phe His Cys Thr Arg Thr Ser Leu Tyr Leu Thr Ala Tyr
        35                  40                  45
Thr Gln Tyr Cys Leu Ile Leu Asp Ser Pro Asp Ser Asn Phe Ser Ser
    50                  55                  60
Leu Leu Thr Cys Arg Leu Ile Gln Leu Ile Pro Val Leu His Arg Leu
65                  70                  75                  80
Phe Leu Leu Lys Ala His Asp Tyr Asp Gln Asp Gly Phe Arg Arg
                85                  90                  95
```

<210> 36812
<211> 167
<212> PRT
<213> A.fumigatus

<400> 36812

```
Pro Ala Asp Ser Ser Asn Ser Phe Leu Ser Cys Thr Gly Phe Phe Ser
```

```
1               5                   10                  15
Leu Arg Leu Thr Thr Thr Thr Lys Met Asp Ser Gly Asp Glu His Ile
            20                  25                  30
Thr Tyr Ser Ser Glu Gly Leu Ser Glu Thr Leu Met Glu Leu Ser Ile
        35                  40                  45
Ser His Asn Thr Glu Ala Lys Leu Ala Ile Arg Glu Tyr Tyr Arg Lys
    50                  55                  60
Gln Asp His Gly Gln Lys Asp Ser Trp Leu Gln Lys Pro Glu Ile Pro
65                  70                  75                  80
Thr Pro Glu Glu Ile Leu Pro Ser Ser Ser Asp Glu Asp Cys Val Glu
                85                  90                  95
Leu Met Pro Asn Arg Ile Asp Gly Pro Trp Thr Ser Lys Asp Ser Tyr
            100                 105                 110
Leu Arg Ala His Tyr Glu Leu Leu Arg Glu Asp Ala Val Ala Pro Leu
        115                 120                 125
Arg Asp Ala Val Ala Tyr Phe Arg Asn Asp Pro Gln Met Val Asp Ser
    130                 135                 140
Gln Ala Val Ser Ile Tyr Glu Lys Val Ser Gln Phe Ser Phe Leu Leu
145                 150                 155                 160
His Ile Leu Arg Lys Val Glu
                165
```

Sequence Listing

<210> 36813
<211> 497
<212> PRT
<213> A.fumigatus

<400> 36813

```
Ser Arg Val Arg Phe Pro Leu Ala Asp His Ile Cys Gly Leu Asp Pro
1               5                   10                  15
Asp Val Asn Ala Pro Asp Tyr Val Lys Glu Phe Pro Thr Met Asp Ile
            20                  25                  30
Glu Ser Val Thr Thr Asp Glu Glu Lys Lys Ile Asn Leu Leu Glu Gly
        35                  40                  45
Trp Pro Glu Ser Pro Thr Gly Asp Leu Asp Gln Ser Gln Trp Ala Ala
    50                  55                  60
Leu Lys His Ile Leu Thr Lys Lys Leu Ala Ile Ile Gln Gly Pro Pro
65                  70                  75                  80
Gly Thr Gly Lys Thr His Val Ser Val Val Ala Leu Lys Val Leu Leu
                85                  90                  95
Ser Asn Met His Pro His Asp Pro Pro Ile Ile Val Ser Ser Gln Thr
            100                 105                 110
Asn His Ala Leu Asp Gln Leu Leu Arg His Ile Ser Val Phe Glu Lys
        115                 120                 125
Asp Tyr Ile Arg Leu Gly Gly Arg Ser Asn Asp Pro Glu Ile Lys Lys
    130                 135                 140
Arg Thr Leu Phe Ala Ile Arg Gln Asn Glu Pro Ala Ile Thr Val Gln
145                 150                 155                 160
Gly Gly Met Tyr Gly Pro Ala Met Arg Lys His Lys Thr Leu Val Ala
                165                 170                 175
Ala Ile Val Glu Leu Leu Glu Ala Phe Ser Gln Ala Asp Asp Gly Thr
            180                 185                 190
Pro Leu Ser Ser Lys Leu Phe Ala Lys His Gly Leu Leu Ser Ala Glu
        195                 200                 205
Gln Cys Asp Ser Leu Ala Lys Gly Ala Lys Gly Trp Val Arg Pro Gly
    210                 215                 220
```

```
Ala Glu Glu Asp Thr Asp Pro Leu Ile Ala Trp Leu Gly Asp Gln Val
225                 230                 235                 240
Val Lys Phe Gln Val Thr Tyr Thr Thr Glu Asn Phe Gly Phe Asp Glu
                245                 250                 255
Asp Glu Val Asp Leu Glu Tyr Glu Gln Leu Lys Glu Leu Glu Ala Glu
            260                 265                 270
Gln Gly Ile Glu Glu Asp Glu Tyr Glu Asn Leu Arg Gly Gln Phe Ile
        275                 280                 285
Phe Leu Arg Glu Ala Met Cys Gly Leu Val Pro Ser Ser Val Pro Glu
    290                 295                 300
Ala Ala Asn Leu Asp His Leu Gly His Ser Asp Met Trp Lys Val Pro
305                 310                 315                 320
Leu Lys Ala Arg Gly Val Val Tyr Asp Ala Leu Arg Arg Gln Leu Lys
                325                 330                 335
Met Met Leu Leu Glu Gln Phe Arg Lys Leu Val Ala Ala Tyr Thr Lys
            340                 345                 350
Asn Cys Glu Asp Leu Arg Ile Gly Lys Trp Glu Arg Asp His Leu Ile
        355                 360                 365
Leu Arg Lys Ala Arg Ile Ile Gly Met Thr Ala Thr Gly Leu Ser Lys
    370                 375                 380
Tyr Arg Ala Leu Ile Ser Ser Val Lys Pro Lys Thr Ile Leu Ile Glu
385                 390                 395                 400
Glu Ala Ala Glu Val Ile Glu Ala Pro Ile Ala Val Ala Cys Leu Asp
                405                 410                 415
Ser Leu Gln His Met Ile Leu Val Gly Asp His Gln Gln Leu Lys Gly
            420                 425                 430
Gln Cys Ala Val Gln Asp Leu Glu Gly Glu Pro Phe His Leu Asp Val
        435                 440                 445
Ser Met Phe Glu Arg Leu Val Lys Asn Lys Ile Gly Tyr Val Thr Leu
    450                 455                 460
Arg Arg Gln Arg Arg Met Val Pro Glu Ile Arg Arg Leu Leu Glu Pro
465                 470                 475                 480
Ile Tyr Gly Glu Leu Gln Asp His Gln Ser Val Phe Arg Arg Pro Lys
                485                 490                 495
Val
```

<210> 36814
<211> 408
<212> PRT
<213> A.fumigatus

<400> 36814

```
Gln Ile Gln Tyr Glu Ala Phe Trp Ala Asp Pro Ser Asp Val Pro Ile
1               5                   10                  15
Leu Trp Val Gly Leu Leu Phe Gly Met Ile Cys Leu Ala Cys Leu Ala
            20                  25                  30
Ser Asp Pro Pro Asp Gly Thr Glu Val Glu Gln Gln Ser Leu Gln Val
        35                  40                  45
Asn Leu Tyr Arg Glu Lys Ile Val Gln Cys Leu Val Met Gly Glu Tyr
    50                  55                  60
Thr Lys Cys Gly Pro Tyr Ala Leu Glu Thr Val Ile Asn Tyr Val Tyr
65                  70                  75                  80
Val Glu Phe Cys Ile Ser Val Asp Ala Asp Lys Asp Ile Trp Phe Leu
                85                  90                  95
Leu Ala Leu Glu Val Asn Leu Ala Arg Arg Met Gly Tyr His Arg Asp
```

```
            100                 105                 110
Pro Cys His Phe Pro Gly Ile Ser Pro Phe Arg Gly Glu Met Arg Arg
        115                 120                 125
Arg Leu Trp Ala Thr Val Leu Met Ser Asp Ile Leu Ile Ser Asn Gln
    130                 135                 140
Met Gly Met Pro Arg Met Ile Ser Asp Trp Gln Tyr Asp Thr Ala Glu
145                 150                 155                 160
Pro Arg Asn Leu Asn Asp Ala Asp Phe Asp Glu Asp Thr Val Glu Leu
                165                 170                 175
Pro Gln Ser Arg Pro Glu Thr Glu His Thr Thr Ala Leu Gly Ile Ile
            180                 185                 190
Ala Arg Arg Arg Met Leu Lys Ala Leu Gly Met Ile Ala Asp Leu Thr
        195                 200                 205
Ser Ala Val Gln Pro Cys Ser Tyr Ala Glu Val Met Arg Val Asp Lys
    210                 215                 220
Leu Phe His Glu Ala Ala Ala Ser Ile Pro Pro Pro Leu Gln Met Lys
225                 230                 235                 240
Pro Met Ala Ala Ser Val Thr Asp Ser Pro Gln Val Ile Met Ala Arg
                245                 250                 255
Leu Phe Ile Arg His Met Phe Tyr Lys Gly Gln Val Met Leu His Arg
            260                 265                 270
Arg Phe Leu Tyr Met Arg Ser Pro Ser Gln Asn Glu Asp Ile Tyr Glu
        275                 280                 285
Tyr Ser Arg Lys Ala Cys Leu Asp Ala Ser Leu Glu Ala Leu Ala Ile
    290                 295                 300
Gln His Ile Leu Asp Glu Glu Thr Cys Pro Gly Gly Gln Leu His Thr
305                 310                 315                 320
Met Arg Trp Arg Val Thr Ser Ile Met Asn His Gln Phe Leu Thr Ala
                325                 330                 335
Thr Met Ile Leu Cys Ser Leu Leu Tyr His Glu Gln Thr Leu Gln Arg
            340                 345                 350
Glu Asp Glu Ile Arg Gly Ala Leu Gln Arg Ala Arg Thr Val Trp Met
        355                 360                 365
Arg Arg Ser Ser Thr Ser Lys Glu Ala Lys Lys Ala Thr Glu Ala Ile
    370                 375                 380
Asn Ile Val Leu Ser Arg Thr Gly Lys Asp Gln Glu Gly Asp Val Ser
385                 390                 395                 400
Ser Arg Arg Glu Lys Asp Thr Arg
                405
```

<210> 36815
<211> 229
<212> PRT
<213> A.fumigatus

<400> 36815

```
Ser Glu Ala Asp Phe Ser Ile Phe Cys Arg Ser Lys Cys Asp Arg Gln
1               5                   10                  15
Lys Pro Cys Ser Phe Cys Ser Ala Arg Gly Gln Val Cys Thr Tyr Ala
            20                  25                  30
Glu Asn His Pro Thr Thr Gly Ser Pro Lys Pro Ser Pro Thr Ala Val
        35                  40                  45
Pro Thr Leu His Asp Arg Leu Val Gln Leu Glu Arg Leu Val Thr Ser
    50                  55                  60
Met Met Pro Lys Ser Ser Asn Glu Lys Pro Asn Ala Ser Ser Ser Ala
65                  70                  75                  80
```

```
Glu Val Cys Met Pro Pro Val Pro Ser Arg Ile Thr Pro Ala Glu Thr
                85                  90                  95
Met Pro Ile Asn Thr Pro Val Asp Gly Arg Ser Glu Ser Gly Ser Met
            100                 105                 110
Arg Ile Thr Glu Ser Glu Leu Arg Tyr Val Gly Gly Glu His Trp Val
        115                 120                 125
Ala Ile Leu Asp Gly Ile Ala Asp Leu Lys Asp His Leu Asp Arg Glu
    130                 135                 140
Glu Gln Leu Arg Leu Ala Gln Ser Ser Asp Arg Val Glu Asn Glu His
145                 150                 155                 160
Gly Val Gly Asn Ser Ser Glu Pro Phe Ala Arg Thr Arg Ser Asn Gly
                165                 170                 175
Ala Phe Leu Leu Tyr Gly Cys Arg Arg Ala Thr Ser Arg Asp Glu Ile
            180                 185                 190
Leu Ser Ala Leu Pro Pro Lys Asn Ala Val Asp Arg Tyr Ile Ser Arg
        195                 200                 205
Tyr Phe Asn Tyr Leu Asp Leu Val Ser Ser Cys Arg Asp Ser Ser Ile
    210                 215                 220
His Cys Cys Lys Val
225
```

<210> 36816
<211> 69
<212> PRT
<213> A.fumigatus

<400> 36816

```
Leu Leu Leu Thr Asn Ile Gly Ala Arg Ala Val Ile Met Ser Lys Ser
1               5                   10                  15
Glu Ser Thr Asn Gln Arg Glu Lys Gly Ile Asp Ser Glu Leu Glu Glu
            20                  25                  30
Ala Asn Ile Val Asp Trp Gly Gly Pro Asn Asp Pro Ile Asn Pro Lys
        35                  40                  45
Asn Trp Pro Lys His Arg Lys Trp Thr His Ile Val Ile Ile Ser Leu
    50                  55                  60
Leu Ala Leu Thr Thr
65
```

<210> 36817
<211> 186
<212> PRT
<213> A.fumigatus

<400> 36817

```
Gly Ala Val Ser Glu Cys Ser Pro Trp Arg Arg Asn Met Ala Pro Thr
1               5                   10                  15
Met Cys Ala Pro Gly Ile Ser Gly Ile Ser Ala Asp Leu Asp Ile Thr
            20                  25                  30
Ser Ser Ala Val Ser Thr Leu Ala Ile Thr Leu Tyr Val Leu Gly Leu
        35                  40                  45
Ala Ile Gly Pro Met Phe Met Ser Pro Val Ser Glu Val Tyr Gly Arg
    50                  55                  60
Val Pro Val Tyr His Ala Ala Asn Ile Ile Phe Val Ala Met Ile Ile
65                  70                  75                  80
Gly Ser Ala Leu Ser Trp Asn Leu Ala Gln Phe Leu Val Phe Arg Phe
                85                  90                  95
```

```
Ile Ser Gly Cys Ala Gly Gly Thr Pro Met Ala Leu Gly Gly Gly Thr
            100                 105                 110
Ile Ala Asp Ile Thr Thr Ile Glu Gln Arg Ala Val Ala Met Ala Phe
        115                 120                 125
Phe Ser Met Gly Pro Leu Ala Gly Pro Val Cys Val Ile Met Asn Ser
    130                 135                 140
Phe Phe Asp Phe Gln Ile Thr Ser Pro Ile Ser Phe Arg Ser Leu Val
145                 150                 155                 160
Leu Leu Ser Glu Val Pro Arg Cys Lys His Arg Leu Ala Phe Ser Thr
                165                 170                 175
Thr Gly Val Glu Ala Ser Ala Leu Cys Val
            180                 185
```

<210> 36818
<211> 339
<212> PRT
<213> A.fumigatus

<400> 36818

```
Trp Pro Cys Pro Cys Thr Ile Pro Leu Ala Ile Ser Gly Pro Thr Ser
1               5                   10                  15
Phe Pro Ile Arg Tyr Gly Glu Pro Leu Ser Val Leu Pro Arg Phe Asp
            20                  25                  30
Ile Ser Thr Phe Leu Asp Ala Val Gly Gln His His Ile Ser Glu Thr
        35                  40                  45
Tyr Met Val Pro Ala Met Val Gln Ile Leu Ser Arg Ser Ser Leu Pro
    50                  55                  60
Val Ala Glu Ser Leu Ala Ser Leu Arg Tyr Val Gly Ile Ser Gly Ala
65                  70                  75                  80
Pro Ile Asp Gly Phe Ser Ile Gln Arg Phe Gln Arg Leu Leu Ser Pro
                85                  90                  95
Asp Ala Val Ala Gly Asn Leu Trp Gly Met Thr Glu Val Gly Val Val
            100                 105                 110
Phe Gln Asn Arg Tyr Arg Val Pro Leu Gln Phe Gly Ser Val Gly Thr
        115                 120                 125
Leu Leu His Gly Tyr Glu Leu Arg Phe Val Asp Pro Ala Thr Gly Glu
    130                 135                 140
Asp Val Ala Gly Thr Pro Asp Ser Pro Gly Glu Leu Tyr Val Arg Gly
145                 150                 155                 160
Pro Gly Leu Leu Leu Gly Tyr Lys Trp Arg Thr Asp Asp Lys Asp Glu
                165                 170                 175
Gln Gly Trp Phe Arg Thr Gly Asp Met Val Tyr Ala Arg Asp Gly Asn
            180                 185                 190
Tyr Tyr Ile Ile Gly Arg Thr Lys Asp Leu Ile Lys Val Arg Gly Gln
        195                 200                 205
Val Pro Asp Ser Leu Asn Ser Trp Thr Ser His Ser Thr Asn Arg Leu
    210                 215                 220
Cys Asp Ser Arg Tyr Ser Val Ala Pro Ala Glu Ile Glu Gly Ile Leu
225                 230                 235                 240
Leu Lys Asp Pro Gly Val Lys Asp Ala Ala Val Ile Gly Val Met Leu
                245                 250                 255
Pro Asp Gly Ser Ser Glu Val Pro Arg Ala Tyr Val Val Arg Ala Gly
            260                 265                 270
Ile Ser Pro Glu Ser Thr Ala Asp Gln Leu Thr Asp Val Val Gln Thr
        275                 280                 285
Gln Leu Ala Ser Tyr Lys Ala Leu Asp Gly Gly Val Val Phe Val Asp
```

```
    290                 295                 300
Glu Ile Pro Arg Thr Gly Ile Gly Lys Pro His Arg Ala Arg Leu Ser
305                 310                 315                 320
Gln Leu Asp Arg Glu Arg Glu Lys Leu Ala Ser Ile Leu Gly Val Ser
                325                 330                 335
Val Pro Ala
```

<210> 36819
<211> 519
<212> PRT
<213> A.fumigatus

<400> 36819

```
Arg Ser Ser Gly Val Pro Gly Ser Glu Phe Gly Lys Gly Ala Pro Trp
1               5                   10                  15
Arg Gly Gly Lys Arg Glu Pro Leu Leu Gly Glu Met Phe Ala Thr Asn
            20                  25                  30
Lys Arg Gln Glu Asp Asp Asp Glu Glu Asn Glu Glu Asp Leu Asp Ser
        35                  40                  45
Glu Glu Glu Glu Glu Gln Ile Lys Gln Ser Ile Leu Lys Glu Asp Gln
    50                  55                  60
Gly Glu Glu Phe Asn Ser Thr Gln Leu Arg Lys Tyr Gln Leu Glu Arg
65                  70                  75                  80
Leu Arg Tyr Phe Tyr Ala Ile Leu Thr Phe Ser Ser Lys Asp Val Ala
                85                  90                  95
Lys His Val Tyr Asp Ser Val Asp Gly Ala Glu Tyr Leu Ser Ser Ala
            100                 105                 110
Asp Phe Phe Asp Ile Arg Phe Val Pro Glu Asp Thr Asp Phe Ser Asp
        115                 120                 125
Asp Lys Pro Arg Asp Glu Cys Glu Arg Ile Pro Asp Gly Tyr Gln Pro
    130                 135                 140
Asn Glu Phe Val Thr Asp Ala Leu Gln His Ser Lys Val Lys Leu Thr
145                 150                 155                 160
Trp Asp Ala Glu Asp Lys Ser Arg Lys Glu Ala Gln Ala Arg Ala Phe
                165                 170                 175
Arg Gly Ser Arg Lys Asp Ile Asp Glu Asn Asp Leu Lys Ala Tyr Leu
            180                 185                 190
Ala Ser Asp Ser Ser Asp Asp Glu Gly Glu Glu Glu Ala Val Glu Val
        195                 200                 205
Val Asp Thr Thr Lys Gly Asp Gly Ser Ser Thr Lys Ile Ser Lys Lys
    210                 215                 220
Glu Glu Glu Arg Gln Arg Leu Arg Ala Leu Leu Gly Leu Ser Thr Glu
225                 230                 235                 240
Pro Leu Lys Ser Ser Lys Ser Ser Gly Pro Val Gly Glu Met Glu Val
                245                 250                 255
Thr Phe Thr Ser Gly Leu Ala Gly Glu Pro Lys Arg Asp Thr Ile Phe
            260                 265                 270
Glu Asn Glu Pro Glu Arg Glu Glu Thr Thr Ile Glu Lys Tyr Ile Arg
        275                 280                 285
Lys Glu Arg Glu Arg Lys Lys Arg Arg Lys Glu Lys Leu Lys Ala Leu
    290                 295                 300
Lys Arg Gly Glu Thr Gln Gly Glu Ala Lys Ala Asp Ala Asn Gly Asp
305                 310                 315                 320
Asp Val Ser Ser Ala Gly Glu Gly Gln Ala Ala His Glu Asp Leu Gly
                325                 330                 335
```

```
Phe Asn Asp Pro Phe Phe Asp Asp Pro Asp Gly Lys Ala Thr Ala Ala
            340                 345                 350
Ala Arg Arg Lys Glu Glu Lys Arg Lys Lys Arg Ala Glu Arg Glu Ala
        355                 360                 365
Glu Glu Ala Ala Asn Ala Ala Lys Arg Ala Glu Leu Glu Leu Leu Met
    370                 375                 380
Leu Asp Asp Lys Lys Ser Glu Ile Lys His Phe Asp Met Asn Glu Ile
385                 390                 395                 400
Glu Lys Ala Gln Lys Gln Ala Arg Lys Lys Asn Lys Lys Lys Ala Lys
                405                 410                 415
Asp Gln Ala Gln Thr Val Asn Asp Asp Phe Gln Met Asp Val Ser Asp
            420                 425                 430
Pro Arg Phe Ala Arg Leu Phe Glu Ser His Glu Tyr Ala Ile Asp Pro
        435                 440                 445
Thr Asn Pro Lys Phe Lys Pro Thr Pro Gly Met Lys Ala Leu Leu Asp
    450                 455                 460
Glu Gly Arg Lys Arg Arg Arg Asp Arg Asp Asp Arg Gly Asp Glu Glu
465                 470                 475                 480
Val Ser Thr Ser Arg Asp Arg Lys Lys Lys Lys Gln Lys Gln Ser Ala
                485                 490                 495
Ala Gly Asn Ala Gly Ser Asp Asp Leu Lys Lys Leu Val Asp Lys Val
            500                 505                 510
Lys Arg Asn Thr Gln Gln Thr
        515

<210> 36820
<211> 399
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (343)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36820
Ile Ile Met Leu Gly Arg Leu Leu Ser Ser Ala Ala Ser Thr Leu Asn
1               5                   10                  15
Pro Ala Ala Tyr Ser Asn Arg Asn Ala Thr Gln Leu Glu Ser Val Thr
            20                  25                  30
Glu Glu Glu His Thr Ser Gly Leu Leu Phe Pro Asp Ala Ser Leu Leu
        35                  40                  45
Arg Arg Ser Asn Thr His Ala Tyr Pro Leu His Ser Thr Phe Asn Ser
    50                  55                  60
Pro Asn Ala Tyr Ala Ala Gly Ala Tyr Asp Asp Arg Gly Gly Val Glu
65                  70                  75                  80
Leu Asp Pro Val Lys Asp Phe Arg Val Ile Ile Ala Gln Asn Ala Leu
                85                  90                  95
Gly Asp Arg Asp Ala Cys Val Leu Leu Asp Thr Arg Thr Asn Ser Ser
            100                 105                 110
Asp Val Thr Ser Ser Pro His Asp Ser Glu Pro Tyr Val Leu Asp Asn
        115                 120                 125
Ser Gly Thr Arg His Val Arg Thr Leu Ser Ser Leu Ser Arg Ala Pro
    130                 135                 140
Arg Arg Gly Tyr Pro Pro Pro Ser Ser Ala Ala Asp Ser Ser Pro Phe
145                 150                 155                 160
```

```
Ser Val Ala Ala Glu Ser Arg Arg Ser Pro Pro Met Ser Ser Gly Ala
                165                 170                 175
Phe Ala Arg Ala Arg Gly Arg Ser Ser Thr Leu Ser Pro Ala Gly Gly
            180                 185                 190
Val Asn Glu Ala Gly Arg Ser Arg His Ser Ala Glu Asn Asn Asp Ser
        195                 200                 205
Gly Leu Leu Asn Cys Ile Phe Gly Ser Ser Ala Phe Ser Tyr Arg Gly
    210                 215                 220
Ser Ser Thr Lys Met His Ile Ile Ser Ala Asp Glu Asp Ser Gly Arg
225                 230                 235                 240
Thr Ser Ser Glu Ser Pro Ala Thr Arg Asn Ser Leu Ser Arg Ala Tyr
                245                 250                 255
Thr Thr Gly Ser Ser Ser Gly Phe Met Gly Ala Ser Arg Gly Ser Glu
            260                 265                 270
Pro Lys Pro Pro Ser Lys Val Thr Ile Leu Leu Thr Arg Met Phe Ser
        275                 280                 285
Val Asn Leu Pro Glu Ala Gly Asp Thr Ser Asp Arg Pro Asp His Pro
    290                 295                 300
Thr Ser Met Tyr Gln Glu Ser Leu Pro Glu Asn Gly Phe Pro Phe Pro
305                 310                 315                 320
Asp Val Thr Lys Arg Lys Lys Ile Lys Glu Lys Lys Thr Pro Met Tyr
                325                 330                 335
Ala Val Ala Ile Thr Ile Xaa Ile Pro Leu Leu Ser Arg Asn Thr Gly
            340                 345                 350
Arg Pro Gly Ser Arg Phe Ser Thr Gln Ala Thr Asp Ser Pro Lys Ala
        355                 360                 365
Arg Met Ser Cys Ser Leu Asp Ser Asp His Arg Trp Arg Gly Gly Phe
    370                 375                 380
Leu Asp Asp Ser Leu Ser Leu Ala Phe Ser Ser Gly Arg Phe Gly
385                 390                 395

<210> 36821
<211> 74
<212> PRT
<213> A.fumigatus

<400> 36821
Glu Cys Ala Glu Ile Ser Cys Tyr Trp Asp Phe Val Pro Trp Met Thr
1               5                   10                  15
Ala Val Ile Glu Lys Glu Ser Arg Gly Ile Arg Met Tyr Asp Arg Leu
            20                  25                  30
Ser Thr Lys Met Glu Asn Thr Phe Ile Thr Pro Ala Lys Met Met Tyr
        35                  40                  45
Asn Ile Val Val Tyr Ile Leu Asn Ile Leu Asn Pro Thr Met Leu Val
    50                  55                  60
Ser Cys Ser Leu Glu Lys Ile Lys Pro Arg
65                  70

<210> 36822
<211> 184
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (18),(19),(35),(102)
```

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36822

```
Leu Ser Pro Tyr Gln Gly Ile Asn Asp Phe Ile Gly Trp Ala Thr His
1               5                  10                  15
Ser Xaa Xaa Leu Val Pro Tyr Phe Ser Trp Lys Ile Thr His Ala Arg
            20                  25                  30
His His Xaa Tyr Thr Gly His Met Glu Lys Asp Thr Val Leu Val Pro
        35                  40                  45
Trp Thr Asp Glu Gln Leu Ala Lys Lys Arg Asn Val Arg Ile Glu Gln
    50                  55                  60
Leu Lys His Phe Ala Glu Glu Thr Pro Leu Val Ser Phe Leu Gln Leu
65                  70                  75                  80
Ile Gly His Gln Leu Gly Gly Trp Gln Leu Tyr Leu Leu Thr Asn Ala
                85                  90                  95
Thr Ala Gly Ala Gln Xaa Trp Pro Glu Gly Lys Pro Lys Thr Gly Pro
            100                 105                 110
Ala Ser His Phe Asn Pro Val Gly Ala Leu Trp Thr Pro Ser Gln Arg
        115                 120                 125
Leu Ser Ile Ala Ile Ser Asp Leu Gly Leu Leu Ile Met Ala Ala Val
    130                 135                 140
Leu Tyr Tyr Ala Ser Thr Gln Ile Gly Ala Trp Asn Val Val Leu Leu
145                 150                 155                 160
Tyr Phe Val Pro Tyr Leu Trp Val His His Trp Leu Ser Val Ser Ser
                165                 170                 175
Leu Leu Leu Phe Ser Leu Gly Val
            180
```

<210> 36823
<211> 120
<212> PRT
<213> A.fumigatus

<400> 36823

```
Ala Val Ala Ile Thr Tyr Leu Gln His Thr His Pro Ser Val Pro His
1               5                  10                  15
Tyr Thr Pro Glu Ala Trp Thr Tyr Thr Lys Gly Ala Leu Ala Thr Val
            20                  25                  30
Asp Arg Thr Met Gly Phe Ile Gly Arg His Phe Phe His Glu Ile Ile
        35                  40                  45
Asp Tyr His Val Val His His Leu Phe Ser Arg Ile Pro Phe Tyr Lys
    50                  55                  60
Ala Glu Gln Ala Thr Trp Ala Ile Gln Pro Leu Leu Gly Ala Gln Tyr
65                  70                  75                  80
His Glu Glu Lys Glu Gln Ser Phe Leu Gly Ser Leu Val Thr Thr Phe
                85                  90                  95
Arg Lys Cys Ile Tyr Val Ser Ala Thr Gly Gln Pro Gly Val Leu His
            100                 105                 110
Phe Val Lys Ala Asp Glu Gly Asn
        115                 120
```

<210> 36824
<211> 86
<212> PRT
<213> A.fumigatus

<400> 36824
Leu Cys Gln Tyr Cys Gly Gln Tyr Leu Arg Arg Tyr Asn Gln Glu Phe
1 5 10 15
Glu Lys Cys Ala Ala Asp Gly Gly Glu Thr Asn Leu Cys Gln Asp Gln
20 25 30
Lys Ala Met Gln Ala Ile Gly Thr Cys Leu Lys Glu Asn Met Met Pro
35 40 45
Met Ala Leu Gly Glu Met Glu Gln Leu Ser Met Phe Ile Thr Thr Asp
50 55 60
Met Cys Asp Lys Met Asn Ala Tyr Leu Lys Gly Arg Ser Phe Gly Lys
65 70 75 80
Leu Ser Phe Leu Lys Cys
85

<210> 36825
<211> 72
<212> PRT
<213> A.fumigatus

<400> 36825
Met Thr Val Val Asn Thr His Gly Pro Ala Ala Ala Ser Ser Lys Glu
1 5 10 15
Glu Ser Leu Val Ile Leu Met Gln Leu Pro His Gly His Tyr Leu Pro
20 25 30
Trp Gly Phe Cys Asp Lys Glu Arg Pro Leu Cys Ile Pro His Thr Ala
35 40 45
Thr Ser Ser Asp Gly Lys Tyr Val Ala Phe Pro Ala Asp Ala Ser Asn
50 55 60
Ser Glu Ser Thr His Phe Phe Cys
65 70

<210> 36826
<211> 627
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3),(6),(7),(8),(9),(10)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36826
Ser Ala Xaa Gly Trp Xaa Xaa Xaa Xaa Xaa Arg Ala Pro Val Gly Ser
1 5 10 15
Phe Gln Pro Arg Gly Glu Asp Gly Tyr Phe Ala Ser Lys Ser Pro Asn
20 25 30
Phe Met Gln Tyr Ile Phe Arg Trp Lys Leu Thr Val Pro Leu Pro Ile
35 40 45
Pro Lys Ile Gln Phe Ile Val Glu Ile Gly Asp Asp Leu Val Tyr Thr
50 55 60
Ser Ser Val Phe Asp Gln Met Lys Leu Pro Cys Leu Pro Ser Arg Val
65 70 75 80
Ser Trp Val Glu Met Phe Ser Ser Ile Phe Asp Thr Ala Ala Tyr Arg
85 90 95
Val Leu Arg Asp Glu Ile Glu Val Asp Leu Gly Pro Thr Ala Asn Met
100 105 110

```
Ile Leu Ser Lys Ala Met Ser Arg Val Cys Arg Tyr Lys Gly Lys Thr
        115                 120                 125
Gly Gly Thr Gly Phe Pro Asp Arg Gln Asp Leu Tyr Asp Gly Gly Asn
    130                 135                 140
Thr Gln Glu Pro Gln Leu Ile Asn Cys Val Arg Ile Phe Glu Gly Tyr
145                 150                 155                 160
Arg Ser Lys Tyr Val Pro Lys Ser Lys Tyr Leu His Lys Val Leu Glu
                165                 170                 175
Val Glu Asn Leu Glu Leu Thr Asp Arg Ala Ser Pro Thr Ser Glu Trp
            180                 185                 190
Ser Tyr Glu Ser Glu Phe Glu Lys Leu Phe Ser Tyr Pro Phe Val Ser
        195                 200                 205
Ser Tyr Lys Pro Cys Leu Gln Val Ser Arg Glu Glu Leu Ser Ala Leu
    210                 215                 220
Ala Leu Ile Leu Gly Met Asn Leu Cys Val Cys Glu Ser His Asn Pro
225                 230                 235                 240
Tyr Ser Leu His Gly Glu Gly Ala Phe Gly Ile Ser Ala Ser Ala Thr
                245                 250                 255
Leu Ser His Asp Met His Trp Gln Leu Arg Phe Val Arg Thr Ser Arg
            260                 265                 270
Arg Pro Arg His Asp Pro Ser Ala Gly Ser Gly Tyr Ser Thr Leu Phe
        275                 280                 285
Ala Lys Tyr Leu Ala Cys Gly Ala Ile Pro Phe Ala Arg Gly Asn Ser
    290                 295                 300
Glu Asn Asp Ser Lys Trp Ile Lys Ser Val Tyr Ile Gln Asp Leu Asn
305                 310                 315                 320
Lys Phe Glu Glu Gly Gly Tyr Phe Lys Asp Leu Lys Asp Asp Asp Cys
                325                 330                 335
Leu Pro Asp Ala Leu Glu Tyr Leu Ser Arg Leu Pro Thr Ser Glu Thr
            340                 345                 350
Thr Met Leu Trp Pro His Leu Leu Glu Thr Gln Ser Thr Asn Arg His
        355                 360                 365
Lys Asp Trp Gly Leu Val Lys Thr Ile Asp Asn Gln Thr Thr Gly Thr
    370                 375                 380
Trp Trp Asp Ala Val Ala Gly Ile Pro Phe Gly Gly Leu Val Pro Gln
385                 390                 395                 400
Thr Thr Arg Glu Ile Lys Gln Ala Val Gln Phe Thr Val Ser Glu Leu
                405                 410                 415
Pro Thr Val Leu Asp Ile Thr Thr Arg Cys Glu Ser Asp Ser Leu Leu
            420                 425                 430
Asn Glu Leu Glu Met Leu Ile Asn Glu Ser His Arg Gln His Glu Ser
        435                 440                 445
Leu Asn Leu Phe Gly Asn His Val His Glu Arg Ala Lys Ser Leu Asp
    450                 455                 460
Thr Asp Ile Asn Phe Val Thr Lys Cys Tyr Asp Thr Arg Asp Ala Ala
465                 470                 475                 480
Ala Val Phe Gly Arg Tyr Met Thr Leu Leu Glu His Leu Ser Ala Thr
                485                 490                 495
Cys Phe Pro Gly Gly Ser Ala Asn Asp Leu Glu Ser Leu His Gly Gln
            500                 505                 510
Val Ser Ala Tyr Leu Lys Arg Ser Tyr Arg Thr Trp Ile Ala Ser Asp
        515                 520                 525
Ser Lys Lys Asp Thr Lys Asp Val Leu Gln Lys Leu Gly Ile Val Ile
    530                 535                 540
Lys Gly Val Arg Arg Ala Tyr Glu Glu Thr Arg Thr Leu Ser Pro Asp
545                 550                 555                 560
```

```
Gln Thr Ala Lys Val Thr Cys Cys Leu Ile Ala Ala Trp Ala Glu Asn
                565                 570                 575
Val Gln Glu Ile Asn Leu Gly Leu Arg Arg Arg Ser Gln Asp Ser Ile
            580                 585                 590
Ala Asn His Gly Arg Ile Ala Asn Gly Glu Met Ile Asn Asp Gln Gly
        595                 600                 605
Arg Gln Leu Asp His Thr Thr Tyr Met Glu Asp Leu Pro Pro Ile Ile
    610                 615                 620
Ala Leu Ser
625
```

<210> 36827
<211> 68
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (55),(59)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36827

```
Asp Thr Met Leu Phe Ser Arg Val Ala Pro Val Ala Leu Leu Val Ala
1               5                   10                  15
Leu Ala Thr Ser Ser Met Gly Ala Val Ser Ala Lys Gln Ala Ile Glu
            20                  25                  30
Ser Met Asn Ala Leu Gln Asn Thr Val Ser Asp Ala Arg Arg Ser Ile
        35                  40                  45
Glu Gly Met Glu Arg Arg Xaa Ser Lys Arg Xaa Ser Arg Arg Gln Gln
    50                  55                  60
Thr Ser Gly Arg
65
```

<210> 36828
<211> 277
<212> PRT
<213> A.fumigatus

<400> 36828

```
Asp Ile Leu Thr Ser Ala Leu Ala Ser Gly Leu Cys Asp Ser Val Ala
1               5                   10                  15
Ala Ala Val Asn Gln Gly Ser Arg Asn Pro Ser Pro Val Thr Gln Asp
            20                  25                  30
Val Val Glu Asn Leu Ser Leu Asp Val Leu His Arg Asp Asn Arg Ser
        35                  40                  45
Leu Thr Phe Pro Ser Ile Leu Leu Gly His Arg Ser Gln Gln Gln Thr
    50                  55                  60
Leu Lys Asp Leu Gln Ser Met Ile Val Arg Leu Asn Ser Ser Glu Ser
65                  70                  75                  80
Gly Ser Glu Ile Thr Arg Ser Ile Ile Gly Gln Ile His Arg Ala Ser
                85                  90                  95
Gly Asp Ala Val Val Ala Pro Phe Trp Leu Ala Leu Asn Phe Leu Arg
            100                 105                 110
Thr Gly Ser Gln Leu Thr Cys Ile Leu Asp Asp Phe Ile Ser Leu Asp
        115                 120                 125
His Ile Glu Ile Ser Val Gln Ser Leu Ser Ser Lys Ala Met Ile Glu
```

```
    130                 135                 140
Glu Leu Tyr Tyr Tyr Ser Leu Pro Leu Leu Asp Gln Pro Leu Ala Glu
145                 150                 155                 160
Thr Ser Arg Asp Trp Arg Ile Ser Ala Leu Ala Leu Glu Ala Val Ala
                165                 170                 175
Leu Gln Ala Gln Gln Leu Gly Glu Ala Phe Arg Pro Glu Leu Met Asp
            180                 185                 190
Ala Leu Tyr Pro Val Leu Gln Leu Leu Ala Ser Gly Asn Ser Thr Leu
        195                 200                 205
Gln Arg His Ala Met Val Cys Leu Asp Ile Leu Thr Asn Ser Cys Lys
    210                 215                 220
Tyr Glu Asp Thr Ser Thr Met Ile Ile Glu Asn Val Asp Tyr Leu Val
225                 230                 235                 240
Asn Ser Val Ala Leu Lys Leu Asn Thr Phe Asp Val Ser Pro Tyr Pro
                245                 250                 255
Pro Gln Val Leu Phe Met Met Val Lys Leu Cys Gly Ala Arg Leu Ile
            260                 265                 270
Pro Tyr Leu Asp Glu
        275
```

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<210> 36829
<211> 190
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (158)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36829

```
Val Asp Ser Met Leu Gly Ile Leu Asp Met Tyr His Gly Tyr Pro Lys
1               5                   10                  15
Val Val Glu Thr Met Phe Lys Thr Leu Ala Ala Ile Val Glu Glu Gly
            20                  25                  30
Thr Lys Thr Pro Ser Leu Leu Ala Ile Thr Asn Gly Asp Leu Lys Pro
        35                  40                  45
Ile Asp His Arg Lys Arg Gln Tyr Glu Arg Leu Leu Val Pro Thr Val
    50                  55                  60
Ala Glu Asp Leu Ala Ala Arg Arg Thr Lys Arg Ala Arg Tyr Met Asp
65                  70                  75                  80
Glu Asp Leu Glu Asp Asp Glu Glu Arg Val Ser His Pro Lys Gln Pro
                85                  90                  95
Trp Lys Ala Glu Pro Glu Lys Val Glu Ser Leu Asp Ala Asp Asn Leu
            100                 105                 110
Ser Asp Val Leu Asn Ala Asp Glu Ser Glu Glu Pro Leu Pro Pro Pro
        115                 120                 125
Arg Gln Pro Glu Asp Glu Glu Lys Pro Leu Ser Lys Ser His Thr Ile
    130                 135                 140
Leu Leu His Ile Val Lys Ser Ile Pro Ser His Leu Thr Xaa Pro Ser
145                 150                 155                 160
Pro Tyr Leu Arg Arg Ser Leu Leu Ser Asn Pro Ile Gln Gly Phe Pro
                165                 170                 175
Gly Pro Gly Ala Lys Arg Gly Gln Val Phe Ala Ser His Gln
            180                 185                 190
```

<210> 36830
<211> 135
<212> PRT
<213> A.fumigatus

<400> 36830
Ala Asp Gly Pro Ser Gly Ser Pro Ser Ser Ser Ala Ser Ser Arg Thr
1 5 10 15
Arg Glu Arg Phe Lys Ser Ser Gly Ser Ser Leu Ala Arg Ala Leu Thr
20 25 30
Ala Ser Ser Glu Thr Ser Thr Ala His Ser Ser Ser Ser Met Ser Phe
35 40 45
Ser Ala Ser Arg Ala Ser Ala Ser Val Leu Ile Arg Arg Val Ser Ser
50 55 60
Ser Ser Leu Leu Ala Ser Lys Ala Thr Ser Ser Thr Ser Pro Leu Ser
65 70 75 80
Glu Leu Leu Ser Pro Gly Leu Thr Leu Ser Pro Leu Val Pro Ser Ser
85 90 95
Ala Phe Leu Phe Leu Arg Ala Leu Leu Ala Ala Leu Ser Phe Phe Pro
100 105 110
Pro Leu Val Glu Ala Arg Ser Arg Arg Met Lys Val Leu Ser Phe Lys
115 120 125
Arg Gly Ser Thr Ser Val Arg
130 135

<210> 36831
<211> 428
<212> PRT
<213> A.fumigatus

<400> 36831
Ser Ser Ser Thr Thr Val Lys Met Ala Thr Val Asn Ile Arg Arg Asp
1 5 10 15
Val Thr Asp Pro Phe Tyr Arg Tyr Lys Met Glu Arg Leu Gln Ser Lys
20 25 30
Ile Glu Gly Lys Gly Asn Gly Ile Lys Thr Val Val Val Asn Leu Asn
35 40 45
Ser Val Ala Gln Ser Leu Ser Arg Pro Pro Ser Tyr Val Ile Lys Tyr
50 55 60
Phe Gly Phe Glu Leu Gly Ala Gln Ala Asn Ala Lys Pro Thr Asp Asp
65 70 75 80
Arg Trp Ile Ile Asn Gly Ala His Asp Ala Ala Lys Leu Gln Asp Tyr
85 90 95
Leu Asp Gly Phe Ile Ala Lys Phe Val Leu Cys Lys Lys Cys Lys Asn
100 105 110
Pro Glu Thr Asp Val Ile Ile Lys Asp Asp Lys Ile Ile Leu Asp Cys
115 120 125
Lys Ala Cys Gly Gln Arg Thr Asp Val Asp Pro Arg Leu Lys Leu Ser
130 135 140
Thr Phe Ile Leu Arg Asp Arg Ala Ser Thr Lys Gly Gly Lys Lys Asp
145 150 155 160
Lys Ala Ala Arg Arg Ala Arg Lys Asn Lys Lys Ala Glu Glu Gly Thr
165 170 175
Asn Gly Asp Asn Val Ser Pro Gly Asp Ser Asn Ser Asp Asn Gly Glu
180 185 190
Val Glu Asp Val Ala Leu Glu Ala Asn Ser Asp Asp Glu Leu Thr Arg

```
        195                 200                 205
Arg Ile Lys Thr Glu Ala Glu Ala Leu Glu Ala Glu Lys Asp Ile Glu
    210                 215                 220
Asp Asp Glu Trp Ala Val Asp Val Ser Glu Glu Ala Val Lys Ala Arg
225                 230                 235                 240
Ala Lys Glu Leu Pro Asp Asp Leu Lys Arg Ser Leu Val Leu Glu Asp
                245                 250                 255
Ala Asp Glu Asp Gly Glu Pro Asp Gly Pro Ser Ala Tyr Asp Leu Leu
            260                 265                 270
Gly Ser Trp Ile Leu Glu Thr Ala Ser Glu Asn Gly Gly Val Thr Ala
        275                 280                 285
Val Ser Asp Val Asp Ile Tyr Lys Lys Ala Lys Glu Phe Gly Ile Glu
    290                 295                 300
Asn Lys His Lys Thr Val Ala Val Leu Ala Gln Thr Ile Phe Asp Glu
305                 310                 315                 320
Lys Ile Val Lys Gln Ile Pro Ala Arg Ala Ala Phe Leu Lys Lys Met
                325                 330                 335
Ile Thr Ser Glu Arg His Glu Lys Ala Phe Leu Gly Gly Thr Glu Arg
            340                 345                 350
Phe Leu Gly Lys Asp His Pro Glu Leu Ile Ser Leu Val Pro Ala Val
        355                 360                 365
Leu Leu Gly Tyr Tyr Gln His Asp Leu Val Ser Glu Asp Val Leu Lys
    370                 375                 380
Ala Trp Gly Ser Lys Ala Ser Lys Lys Tyr Val Asp Leu Ala Thr Ser
385                 390                 395                 400
Arg Lys Val Arg Lys Ala Ala Glu Pro Phe Leu Asp Trp Leu Glu Asn
                405                 410                 415
Ala Glu Ser Asp Asp Glu Glu Ser Glu Asp Asp Glu
            420                 425
```

<210> 36832
<211> 120
<212> PRT
<213> A.fumigatus

<400> 36832

```
Arg Leu Gly Gly Leu Leu Pro Phe Ser Cys Asn Pro Asn Gly Thr Asp
1               5                   10                  15
Gly Gln Glu Tyr Thr Arg Leu Val Thr Ile Ile Phe Leu Ser Ser Thr
            20                  25                  30
Ala Ala Leu Phe Ala Asp Thr Tyr Leu Cys Arg Val Phe Pro Leu Phe
        35                  40                  45
Trp Glu Met Leu Val Asn Leu Asp Gln Ile Glu Phe Tyr His Gly Pro
    50                  55                  60
Ser His Gln Pro Gly Val Tyr Gln Cys Lys Val Thr Ala Ser Arg Ala
65                  70                  75                  80
Tyr Pro Thr Ala Phe Pro Ala Phe Phe Pro Asp Tyr Val Asn Leu Arg
                85                  90                  95
Pro Gly Ile Leu Trp Asp Thr Pro Arg Thr Arg Thr Ala Ile Asp Arg
            100                 105                 110
His Asp Ser Ser Val Glu His Ile
        115                 120
```

<210> 36833
<211> 236
<212> PRT

<213> A.fumigatus

<400> 36833

```
Ala Val Lys Lys Gly Leu Pro Thr Ala Ala Val Val Ala Ser Thr Pro
1               5                  10                  15
Lys Ser Glu Leu Ser Ala Ser Tyr Asp Val Ile Val Ile Gly Ala Gly
            20                  25                  30
Phe Ala Gly Leu Thr Val Ala Arg Asp Leu Gly Phe Lys Gly Lys Lys
        35                  40                  45
Val Leu Leu Ile Glu Ala Arg Asp Arg Ile Gly Gly Arg Cys Trp Thr
    50                  55                  60
Val Asp Thr Gly Glu Thr Ala Lys Leu Glu Met Gly Gly Thr Trp Val
65                  70                  75                  80
His Trp Ile Gln Pro His Val Phe Ser Glu Leu Gln Arg Cys Asp Leu
                85                  90                  95
Asp Glu Phe Val Glu Thr Val Ala Phe Pro Glu Asn Cys Glu Ser Val
            100                 105                 110
Lys Lys Ala Ser Arg Gln Asp Pro Ala Val Ala His Asp Pro Ala Glu
        115                 120                 125
Gly Gln Ala Met Met Glu Gln Leu Glu Gly Leu Met Ala Lys Phe Phe
    130                 135                 140
Asp Ile Asp Gly Gln Gly Gly Arg Ser Val Ile Pro Phe Pro Phe Asn
145                 150                 155                 160
Met Ala Ser Ser Thr Lys His Asn Pro Glu Tyr Leu Glu Leu Asp Lys
                165                 170                 175
Leu Ser Ile Ala Asp Arg Val Ala Gln Met Pro Asp Cys Asp Glu Glu
            180                 185                 190
Gln Arg Ala Val Leu Gly Ala Gln Ala Ala Ser Phe Tyr Gly Ile Ala
        195                 200                 205
Pro Glu Lys Gly Ala Phe Thr Glu Val Leu His Thr Gln Ala Leu Cys
    210                 215                 220
Asn Phe Asp Pro Ala Met Thr Glu Ile Ala Thr Met
225                 230                 235
```

<210> 36834
<211> 148
<212> PRT
<213> A.fumigatus

<400> 36834

```
Gln Arg Pro Leu Ala Phe Asn Leu Leu Glu Ile Ile Phe Leu Val Leu
1               5                  10                  15
Pro Phe Glu Trp Trp Met Pro Arg Glu His Tyr Ala Lys Leu Asn Glu
            20                  25                  30
Val Ile Met Gly Ile Ile Tyr Ser Pro Leu Leu Leu Ile Ile Ala Thr
        35                  40                  45
Leu Glu Thr Arg Glu Ala His Arg Ile Arg Trp Asn Arg Arg Gln Gly
    50                  55                  60
Glu Glu Asp Asp Asp Val Val His Glu Trp Glu Asp Val Ala Glu Gln
65                  70                  75                  80
Val Asp Phe Asp Val Asp Asp Thr Trp Arg Gln Ala Val Arg Asp Thr
                85                  90                  95
Thr Pro Asp Pro Asn Ala Glu Asn Cys Thr Leu Glu Ile Ile Gln Leu
            100                 105                 110
Arg Glu Gln Ile Lys Glu Leu Thr Ala Val Val His Ala Phe Ile Glu
        115                 120                 125
```

Lys Lys Asp Thr Glu Glu His Met Arg Glu Gln Ser Ser Ser Asn Gln
130 135 140
Gly Asp Ala Glu
145

<210> 36835
<211> 398
<212> PRT
<213> A.fumigatus

<400> 36835
Thr Ser Thr Leu Leu Ile Gly Leu Val Ala Cys Gly Val Tyr Ser Ile
1 5 10 15
Thr Arg Leu Leu Lys Gly Ser Pro Ala Ser Ser Gln Leu Ala Leu Asn
20 25 30
Ser Ala Ile Pro Thr Asn Ser Met Thr Asp Asn Ser Leu Pro Leu Leu
35 40 45
Tyr Ala Gly Glu His Leu Asp Thr Val Ala Gly Phe Pro Thr Leu Tyr
50 55 60
Ala Phe Ser Pro Ala Asn His Asp Asn Pro Leu Met Val Phe Ile Pro
65 70 75 80
Gly Gly Gly His Asn Ala Arg Ile Ser Tyr Gly Gly His Pro Gly Ser
85 90 95
Arg Ser Glu Asp Phe Leu Ala His Trp Leu Asn Lys Leu Gly Tyr Gly
100 105 110
Leu Leu Ala Ile Ser Tyr Pro Leu Gln Ser Gln Pro Asp Glu Ile Met
115 120 125
Ala Ala Thr Ser Pro Glu Phe Arg Ile Arg Asp Trp Gly Leu Gln Ala
130 135 140
Ala Glu Val Thr Lys Thr Val Ile Glu Arg His Gly Leu Ser Pro Lys
145 150 155 160
Val Val Leu Val Ala Trp Ser Met Gly Gly Arg Val Val Val Pro Tyr
165 170 175
Thr Gln Ala Ala Lys Ala Arg Gly Leu Thr Val Glu Leu Phe Val Ser
180 185 190
Leu Ala Ala Thr Pro Gly Leu Ala Ala Ser Arg Pro Asn Pro Pro Gly
195 200 205
Ile Lys Met Thr Ser Glu Gly Tyr Ala Ala Leu Asp Arg Met Pro Glu
210 215 220
Leu Phe Leu Ser Gln Val Arg Glu Gln Asn Ile Leu Glu Ser Arg Val
225 230 235 240
Ile Ile Pro Asp Asp Val Tyr Leu Arg Asp Tyr Tyr Gly Cys Thr Pro
245 250 255
Val Gly Leu Leu Gly Phe Gly Met Ser Tyr Ser Pro Glu Arg Gly Phe
260 265 270
Val Glu Asp Arg Tyr Thr Ser Thr Glu Asp Ala Asp Ala Asn Asn Phe
275 280 285
Arg Gln Trp Pro Leu Ile Ser Ala Leu His Gly Asp Ser Ile Leu Asp
290 295 300
Gly Arg His Val Leu Ala Asp Lys Ala Thr Trp Gly Phe Met Gln Val
305 310 315 320
Gln Gln Leu Val Ser Thr Val Glu Asp Arg Gly Tyr Arg Ser Leu Asn
325 330 335
Pro Glu Arg Trp Glu Glu Val Val Lys Leu Val His Ser Arg Pro Glu
340 345 350
Asn Met Cys Arg Gln Ile His Gly Asn His Phe Phe Phe Leu Gly Glu

```
        355                 360                 365
Gln Gly Ala Arg Glu Thr Ala Ala Ala Ile Val Glu Gln Leu Lys Glu
    370                 375                 380
Ala Arg Ile Phe Met Ser Thr Leu Asp Thr Leu Leu Val Pro
385                 390                 395

<210> 36836
<211> 67
<212> PRT
<213> A.fumigatus

<400> 36836
Arg Gly Ile Val Leu Leu Asn Ile Leu Ile Ala Leu Tyr Asn Ser Ala
1               5                   10                  15
Tyr Glu Asp Ile Ser Gly Asn Ala Val Asp Glu Tyr Met Ala Ile Phe
            20                  25                  30
Ala Leu Lys Thr Met Gln Phe Val Arg Ala Pro Asp Glu Asn Val Phe
        35                  40                  45
Ile Pro Arg Glu Phe Ser Cys Cys Ser Ala Asp Trp Ala Leu Thr Asn
    50                  55                  60
Ser Asp His
65

<210> 36837
<211> 61
<212> PRT
<213> A.fumigatus

<400> 36837
Thr Ser Gly Leu Arg Gly Cys Leu Trp Thr Ile Ser Pro His Leu Ser
1               5                   10                  15
Lys Ser Thr Thr Thr Ala Ser Ser Ala Phe Ser Thr Leu Asp Ile Asn
            20                  25                  30
Ala Ala Asn Arg Ser Ser Gly Met Trp Cys Val Phe Asn Tyr Lys Thr
        35                  40                  45
Ala Gln Gly Gln Ser Cys Gln Phe Ala Thr Cys Ile Lys
    50                  55                  60

<210> 36838
<211> 67
<212> PRT
<213> A.fumigatus

<400> 36838
Pro Gln Asp Ser Gln Ile Ala Arg Arg Ser Thr Leu Val Leu Ser Leu
1               5                   10                  15
Leu Ala Tyr Arg Glu Pro Leu Pro Gly Arg Pro Tyr Ser Lys Gln Arg
            20                  25                  30
Ala Pro Pro Trp Ala Thr Gly His Ala Ser Gln Ser Pro Ser Trp Leu
        35                  40                  45
Pro Leu Leu Leu Glu Asp Pro Asn His Gly Tyr Glu Ile Leu Val Met
    50                  55                  60
Leu Arg Pro
65

<210> 36839
```

<211> 216
<212> PRT
<213> A.fumigatus

<400> 36839
Pro His Leu Arg Phe Leu Gly Trp Tyr Tyr Tyr Ala Ala Glu Asn His
1 5 10 15
Asn Thr Phe Ala Val Ala Arg Arg Thr Met Thr Leu Gly Asn Phe Ala
20 25 30
Ala Phe Leu Ile Phe Cys Phe Tyr Pro Cys Met Pro Pro Arg Leu Leu
35 40 45
Pro Asp Ser Tyr Gly Phe Tyr Asp Thr Val Arg Gln Glu His Ala Glu
50 55 60
Ser Val Trp Val Gly Gly Lys Ser Val Asn Gln Phe Ala Ala Met Pro
65 70 75 80
Ser Leu His Phe Thr Tyr Ala Phe Val Ile Gly Cys Thr Phe Ile Tyr
85 90 95
His Ser Gly Leu Val His Arg Leu Gln Gly Arg Pro Val Arg Lys Ser
100 105 110
Pro Phe Thr Gln Ile Phe Phe Ile Ile Met Ala Val Val Tyr Pro Leu
115 120 125
Leu Val Leu Ser Val Ile Ile Ala Thr Ala Asn His Tyr Trp Leu Asp
130 135 140
Ala Thr Val Ala Thr Phe Thr Val Thr Ile Cys Phe Leu Gly Asn Arg
145 150 155 160
Val Leu Leu Leu Leu Leu Pro Val Glu Tyr Cys Ile Cys Trp Val Leu
165 170 175
Arg Leu Ala Lys Pro Val Pro Thr Thr Gly Asp Arg His Leu His Lys
180 185 190
Trp Arg Gln Ser His Gly Asp Val Pro Leu Leu Ala Glu Gln Asp Ser
195 200 205
Asp Arg Phe Ser Asp Ser Val Val
210 215

<210> 36840
<211> 104
<212> PRT
<213> A.fumigatus

<400> 36840
Pro Leu Ala Thr Ser Pro His Ser Ser Ser Ser Ala Ser Thr Pro Ala
1 5 10 15
Cys Arg Pro Gly Cys Phe Pro Thr Pro Met Ala Ser Thr Thr Pro Ser
20 25 30
Ala Lys Ser Thr Gln Arg Ala Ser Gly Ser Ala Gly Asn Leu Ser Thr
35 40 45
Ser Ser Pro Arg Cys Arg Val Tyr Ile Ser Pro Thr His Leu Ser Ser
50 55 60
Gly Val Pro Ser Ser Thr Thr Arg Ala Ser Cys Thr Asp Ser Arg Ala
65 70 75 80
Asp Leu Ser Ala Ser Pro Arg Ser Arg Arg Ser Ser Ser Ser Ser Trp
85 90 95
Gln Ser Cys Thr Pro Cys Ser Cys
100

<210> 36841

<211> 379
<212> PRT
<213> A.fumigatus

<400> 36841
Leu Tyr Tyr Ser Ser Met Thr Lys Pro Gln Pro Pro Pro Ile Leu Asp
1 5 10 15
Phe Ser Val Phe Tyr Gly His Asp Ser Gln Ala Lys Ala Gln Leu Val
20 25 30
Gln Arg Val Arg Glu Cys Cys Leu Asn Asn Gly Phe Phe Gln Ile Thr
35 40 45
Gly His Lys Val Ser Pro Glu Leu Gln Gln Arg Thr Phe Asp Cys Ala
50 55 60
Lys Arg Phe Phe Asp Leu Pro Leu Ile Glu Lys Lys Lys Ile Glu Arg
65 70 75 80
Ser Lys Asn Tyr Pro Trp Tyr Pro Ala Asp Lys Gln Leu Thr Leu Ala
85 90 95
Gly Pro Asp Ala Phe Asn Arg Gly Tyr Glu Ala Phe Gln Ser His Met
100 105 110
Ser Gln Pro Gly Ser Ala Pro Asp Arg Lys Glu Gly Leu Phe Leu Gly
115 120 125
Pro Asp Leu Ala Glu Asp His Pro Tyr Cys Val Gln Lys Lys Leu Asn
130 135 140
Cys Gly Pro Asn Arg Trp Pro Gln Gly Leu Asp Asp Leu Glu Glu Phe
145 150 155 160
Lys Leu Val Ser Met Glu Tyr Tyr Ala Ala Leu Phe Gln Leu Ala Lys
165 170 175
Asp Val Val Ala Val Leu Ala Leu Thr Met Asp Tyr Glu Glu Thr Phe
180 185 190
Phe Asp Pro Leu Thr Glu Gly Ala Ile Ala Thr Leu Arg Tyr Leu His
195 200 205
Tyr Pro Pro Gln Pro Val Gly Asp Ala Glu Ala Gly Leu Gly Thr Gly
210 215 220
Ala His Arg Asp Tyr Ser Cys Ile Thr Leu Leu Leu Gln Asp Gly Thr
225 230 235 240
Gly Gly Leu Gln Val Leu Asp Glu Pro Thr Gly Gln Trp Leu Asp Val
245 250 255
Arg Cys Ser Leu Ser Asn Gly Asn Leu Val Gln Cys Val Ala Tyr Ser
260 265 270
Cys Asn Leu Gln Val Lys Pro Val Pro Gly Ala Tyr Ile Val Asn Leu
275 280 285
Ala Asn Val Phe Ala Arg Met Thr Asn Gly His Tyr Lys Ser Ala Leu
290 295 300
His Arg Val Val Asn Lys Ser Gly Leu Glu Arg Tyr Ser Ile Pro Phe
305 310 315 320
Phe Phe Thr Gly Asn Pro Asp Tyr Val Cys Glu Cys Leu Ser Arg Phe
325 330 335
Arg Lys Glu Gly Glu Pro Val Arg His Pro Pro Ala Thr Val His Glu
340 345 350
Val Val Ala Glu Ala Val Arg Gly Thr Val Glu Arg Ala Asn Arg Tyr
355 360 365
Asn Ala Glu Arg Gln Gly Ile His Ala Ala Gln
370 375

<210> 36842
<211> 68

<212> PRT
<213> A.fumigatus

<400> 36842
Ile Ser Tyr Thr Lys Lys Ser His Ser Trp Ile Val Phe Thr Leu Thr
1 5 10 15
Gly Asn Ser Asp Ile Gly His Arg Pro Gln Lys Met Pro Ile Ala Cys
20 25 30
Ile Thr Lys Phe Ser Gly Arg Arg Gly Thr Thr Leu Asp Lys Phe Arg
35 40 45
Thr Phe Leu Ala Trp Arg Lys Pro Gln Ile Arg Gly Arg Thr Trp Lys
50 55 60
Thr Lys Ser Gln
65

<210> 36843
<211> 182
<212> PRT
<213> A.fumigatus

<400> 36843
Ser Ile Trp Arg Gly Gly Gln Arg Glu Asn Ser Asp Ile Lys Ser Arg
1 5 10 15
Glu Leu Ser Leu Cys Ser Gln Phe Val Ser Leu Pro Val Phe Ala Val
20 25 30
Glu Val Asn Ile Arg Trp Asn Phe Trp His Leu Ser Phe Phe Ala Trp
35 40 45
Lys Asp Gln Phe Ala Arg Ile Tyr Leu Thr Leu Leu Ile Ala Pro Arg
50 55 60
His Lys Arg Val Lys Met Ala Ala Ser Ala Ser Ser Val Thr Asp Val
65 70 75 80
Asp Ile Glu Asn Val Pro Lys Glu Lys Leu Asp Val Lys Glu Thr Glu
85 90 95
Lys Glu Pro Asp Phe Glu Tyr Pro Ala Leu Ser Lys Val Val Val Ile
100 105 110
Ile Leu Gly Leu Tyr Leu Ala Val Phe Leu Val Ala Leu Asp Gln Thr
115 120 125
Ile Ile Gly Val Ala Ile Pro Lys Ile Thr Asp Gln Phe Lys Ser Ile
130 135 140
Glu Asp Ile Ala Trp Tyr Gly Ser Ala Tyr Phe Leu Thr Ser Thr Ala
145 150 155 160
Leu Gln Pro Ser Tyr Gly Arg Ile Tyr Lys Ile Phe Ser Val Gly Phe
165 170 175
Leu Pro Cys Cys Met Cys
180

<210> 36844
<211> 242
<212> PRT
<213> A.fumigatus

<400> 36844
Arg Trp Arg Ile Ser Met His Asn Leu Val Gln Leu Leu Arg Arg Lys
1 5 10 15
Arg Gly Asn Gln Leu Trp Arg Met Ser Pro Asp Glu Ser Glu His Ala
20 25 30

```
Ala Arg Ala Met Val Gln Gln Ser Leu Met Asp Asp Ser Leu His Pro
        35                  40                  45
Ser Arg Ser Ser Ser Ala Thr Arg Pro Gln Arg Thr Gly Asp Ala Phe
    50                  55                  60
Ser Ile Pro Asp Val Pro Thr Ser Ala Pro Arg Thr Pro Ala Pro Glu
65                  70                  75                  80
Thr Gly His Ala Ala Glu Gln Gly Ser Thr Leu Glu Leu Pro Ser Ala
                85                  90                  95
Pro Ala Thr Ile Ala Ser Ser Ser Ile Pro Asn Leu Pro Asp Lys Ser
            100                 105                 110
Ala Ser Leu Gly Ala His His Pro Ala Asp Pro Asn Ser Asn Ser Phe
        115                 120                 125
His Ser Phe Pro Pro Pro Ala Asn Leu Pro Ser Pro Pro Ala Ala Phe
    130                 135                 140
Asn Gln Pro Ser His Phe Tyr Asn Gln Pro Lys Pro Ser Ala Trp Ala
145                 150                 155                 160
Pro Ser Pro Pro Ala Gln Pro His Thr Glu Pro Ala Pro Val Val Ser
                165                 170                 175
Arg Pro Val Gln Gln Pro Ala Ser Ala Ala Val Pro Thr Val Ser Ala
            180                 185                 190
Ser Ser Gln Ser Asn Ser Gln Gly Ile Asp Asp Gln Ala Ile Ala Leu
        195                 200                 205
Ala Gln Lys His Ala Arg Trp Ala Val Ser Ala Leu Thr Phe Asp Asp
    210                 215                 220
Val Asp Thr Ala Ile Lys Glu Leu Arg Asn Ser Leu Lys Tyr Leu Gly
225                 230                 235                 240
Ala Glu
```

<210> 36845
<211> 100
<212> PRT
<213> A.fumigatus

<400> 36845

```
Trp Thr Asn Leu Arg Val Gly Leu Arg Leu Thr His Cys Arg Gln Thr
1               5                   10                  15
Ala Asp Thr Phe Gln Ala Ala Ala Thr Phe Leu Glu Leu Cys Gln Ile
            20                  25                  30
Trp Asn Pro Leu Glu Pro Glu Ile Ala Ala Lys Ile Lys Phe Ala Lys
        35                  40                  45
Tyr His Ala Leu Arg Ile Val Lys Ala Ile Lys Ala Gly Glu Asp Pro
    50                  55                  60
Asn Ala Thr Asn Pro Val Ile Lys Glu Asp His Gln Ala Glu Gly Pro
65                  70                  75                  80
Ala Val Thr Val Glu Asp Leu Asp Ala Gln Pro Gly Ala Ala Leu Ala
                85                  90                  95
Ser Gln Thr Arg
            100
```

<210> 36846
<211> 336
<212> PRT
<213> A.fumigatus

<400> 36846

```
Lys Lys Arg Leu Trp Phe Phe Ala Lys His Leu Arg Gln Val Pro Ala
1               5                  10                  15
Gly Lys Arg Lys Gly Pro Ser Pro Lys Ser Trp Trp Glu Lys Phe Lys
            20                  25                  30
Ala Lys Glu Gln Pro Asn Gly Gly Pro Lys Ser Arg Lys Gly Leu Asn
        35                  40                  45
Arg Lys Lys Ala Ile Gln Arg Gly Pro Thr Arg Leu Thr Ile Asp Ser
    50                  55                  60
Ala Leu Ala Phe Ala Val Gln Ser Pro Ser Val Leu Ser Pro Thr Ser
65                  70                  75                  80
Pro Thr Gly Phe Ala Ser Pro Ser Pro Leu Ser Pro Ile Met Asn Pro
                85                  90                  95
Glu His Met Arg Lys Glu Leu Ala Lys Ser Leu Asp Glu Leu Ala Glu
            100                 105                 110
Glu Tyr Gln His Lys His Ala Lys Ser Thr Thr Ser Leu Asp Thr Asn
        115                 120                 125
Cys Ser Leu Ser Ala Ser Val Thr Ser Pro Thr Ser Thr Leu Val Ser
    130                 135                 140
Asp Ser Pro Phe Thr Pro Val Ser Gln Ser Arg Gly Ser Leu Ala Asp
145                 150                 155                 160
Ser Gln Ser Asn Arg Pro Arg Ser Gln Thr Leu Pro Thr Gly Thr Leu
                165                 170                 175
Asp Pro Ser Leu Ile Ser Thr Glu Glu Ser Ser Asp His Ser Leu Ser
            180                 185                 190
Lys Ala Ala Leu Gln Gln Ser Leu Ser Ile Thr Thr Leu Glu Ser Pro
        195                 200                 205
Leu Glu Asp Glu His Asn Ser Lys Lys Gly Pro Gly Leu Asp Thr Ser
    210                 215                 220
Ser Asn Thr Ile Lys Arg Asn Arg Ser Asn Pro Glu Ile Lys Ala Lys
225                 230                 235                 240
Pro Met Tyr Pro Pro Ser Phe Ser Lys Ser Thr Thr Val Ser Pro Ile
                245                 250                 255
Ser Ser Pro Gly Ser Pro Thr Gln Asp Glu Ala Arg Arg Ala Leu Glu
            260                 265                 270
Leu Val Val Ser Tyr Phe Glu His Gln Pro Thr Gly Leu Gly Ala Gln
        275                 280                 285
Glu Phe Val Thr Ile Gly Lys Leu Met Glu Arg Leu Glu Leu Ala Arg
    290                 295                 300
Ala Gln Gln Thr Ala Leu Pro Gly Gly Leu Ala Arg Ile Asp Glu Leu
305                 310                 315                 320
Glu Asp Ala Pro Gln Leu Thr Lys Lys Arg Ser Ile His Asn Leu Gly
                325                 330                 335
```

<210> 36847
<211> 78
<212> PRT
<213> A.fumigatus

<400> 36847

```
Ile Glu Asn Tyr Leu Arg Asn Thr Ile Arg Asp Phe Phe Arg Val Pro
1               5                  10                  15
Ser Val Tyr Glu Phe Ser Ser Ile Leu Tyr Leu Arg Lys Glu Ala Asp
            20                  25                  30
Val Gly Gln Ser Asp Gln Thr Met Thr Phe Arg Leu Asp Val Asp Met
        35                  40                  45
Lys Leu Phe Asp Ala Val Ala Glu Gln Pro Ser Lys Asp Asp Asp Ser
```

```
    50                  55                  60
His Ser Asn Val Asp Gln Leu Gly Pro Ala Leu Val Arg Met
65                  70                  75

<210> 36848
<211> 153
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (77)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36848
Ala Lys Leu Leu Ser Ser Ser Trp Arg Ser Thr Ser Ala Pro Asp Pro
1               5                   10                  15
Ser Arg Ser Leu Leu Arg Arg Gln Gln Arg Pro Pro Gly Met Glu Thr
            20                  25                  30
Ile Arg Ile Met Ala Pro Met Ala Ser Thr Val Thr Thr Val Thr Thr
        35                  40                  45
Ser Val Thr Arg Ser Pro Ala Pro Arg Pro His Ala Pro Lys Gln Lys
    50                  55                  60
Leu Pro Leu Gln Gln Thr Thr Glu Thr Thr Glu Thr Xaa Ala Thr Met
65                  70                  75                  80
Val Asn Met Gly Thr Met Val Thr Thr Ser Val Ala Lys Asn Pro Leu
                85                  90                  95
Gln Pro Pro Gln Pro Pro Leu Arg Thr Gln Val Pro Leu Gln Gln Thr
            100                 105                 110
Thr Glu Thr Met Val Asn Met Gly Thr Met Val Thr Thr Asn Val Thr
        115                 120                 125
Lys Ser Pro Pro Gln Pro Thr Leu Arg His Gln Phe Pro Leu Pro Ile
    130                 135                 140
Pro Ala Asp Leu Gly Asn Tyr Gly Glu
145                 150

<210> 36849
<211> 145
<212> PRT
<213> A.fumigatus

<400> 36849
Ser Asp Pro Ser Asn Ala Ile Ile Cys Glu Ser Phe Pro Phe Leu Asp
1               5                   10                  15
Val Thr Met Leu Lys Leu Ser Ile Met Ser Met Thr Val Leu Leu Phe
            20                  25                  30
Phe Gln Ser Arg Thr Thr His Ala Thr Gly Ala Val Pro Thr Ala Met
        35                  40                  45
Thr Pro Ser Ser Thr Ala Pro His Ala Thr His Thr Val Lys Val Gly
    50                  55                  60
Pro Lys Glu Asn Pro His Gln Tyr Ser Pro His Asn Ile Thr Ala Ala
65                  70                  75                  80
Val Gly Asp Val Ile Val Phe Glu Phe Tyr Pro Arg Asn His Ser Val
                85                  90                  95
Val Lys Ala Asp Phe Met Ala Pro Cys Val Pro Ala Ala Gly Glu Ile
            100                 105                 110
```

```
Phe Tyr Ser Gly Gln Phe Asn Thr Phe Lys Glu Asn Asn His Gly Gln
        115                 120                 125
Leu Glu Gly Glu Val Ser Val Ser Pro Met Ser Arg Ser Gln Leu Thr
    130                 135                 140
Phe
145
```

<210> 36850
<211> 205
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (120)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36850

```
Ser Ser Ala Leu Ala Ile Lys Pro Ala Thr Leu Val Arg Pro Gln Gly
1               5                   10                  15
Leu Leu His Phe Leu Ser Gln Ser Lys Leu Phe Ser Ser Ser Ser Thr
            20                  25                  30
Thr Leu Ser Ser Ser Thr Met His Leu Leu Ser Lys Ala Ala Val Leu
        35                  40                  45
Leu Leu Ala Leu Asn Val Ser Ala Arg Pro Ile Glu Glu Pro Pro Ala
    50                  55                  60
Gln Thr Thr Thr Pro Ala Gly Tyr Gly Asp Tyr Lys Asp Tyr Gly Ser
65                  70                  75                  80
Tyr Gly Lys Tyr Gly Asp Tyr Gly His Tyr Lys Arg Asn Glu Glu Pro
                85                  90                  95
Ser Pro Thr Thr Thr Cys Thr Glu Thr Glu Thr Pro Thr Pro Ala Asp
            100                 105                 110
Tyr Gly Asp Tyr Gly Asp Tyr Xaa Asn Tyr Gly Gln Tyr Gly Asp Tyr
        115                 120                 125
Gly His Tyr Lys Arg Gly Glu Glu Pro Thr Thr Thr Thr Thr Thr Thr
    130                 135                 140
Thr Glu Asn Pro Ser Pro Ser Pro Ala Asn Tyr Gly Asn Tyr Gly Gln
145                 150                 155                 160
Tyr Gly Asp Tyr Gly His Tyr Lys Arg Asp Lys Glu Pro Thr Ala Thr
                165                 170                 175
Asn Thr Glu Thr Pro Ile Pro Ser Pro Asn Pro Arg Arg Leu Arg Gln
            180                 185                 190
Leu Trp Arg Ile Thr Ala Pro Thr Ala Lys Tyr Gly Gly
        195                 200                 205
```

<210> 36851
<211> 268
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (89),(97),(149),(158)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36851

```
Val Leu Ile Gly Lys Lys Lys Lys Lys Gln Met Ala Arg Ser Glu
1               5                  10                  15
Ser Asp Lys Asp Ile Asp Ala Asn Tyr Gly Leu Leu Asn Asn Asp Glu
            20                  25                  30
Ala Gln Asn Trp Ser His Asp Glu Lys Pro Arg Thr Thr Ser His Gly
        35                  40                  45
Gln Trp Leu Lys Ala Leu Leu Tyr Ile Ala Thr Val Ile Val Ser Cys
    50                  55                  60
Leu Val Gly Leu Phe Ile Gly Arg Gln Val Gln Tyr Leu Asp Arg Pro
65                  70                  75                  80
Cys Ala Arg His Val Ser His Tyr Xaa Thr Ser His Ile Phe Gly Ile
                85                  90                  95
Xaa Glu Asn Ser Ile Ile Asn Lys Thr Ala Pro Val Thr Ser Asp Val
            100                 105                 110
Asp Ile Thr Phe Gln Pro Gln Arg Phe Asn Gly Ser Leu Leu Lys Glu
        115                 120                 125
Asn Ile Tyr Arg Gln Asp Ala Ser Pro Glu Val Asp Ala Ala Trp Glu
    130                 135                 140
Ala Leu Gly Val Xaa Cys Lys Met Asp Tyr Pro Gly Ile Xaa Glu Ile
145                 150                 155                 160
Pro Thr Val Ser Arg Ser Lys Phe Ala Cys Ser Cys Arg Ser Ser Arg
                165                 170                 175
Lys Val Arg Thr Gly Ala Arg Pro Gly Gln Asp Gln Pro Glu Val Trp
            180                 185                 190
Arg Arg Val Ser Ser Glu Cys Arg Gly Phe Pro Ser Ser Thr Leu Ser
        195                 200                 205
Ser Met Ser Ser Phe Asn Tyr Leu Lys Met Lys Ala Asp Gln Cys Arg
    210                 215                 220
Ile Tyr Cys Ala Lys Arg Ser Thr Thr Thr Thr Ile Thr Thr Thr Ser
225                 230                 235                 240
Ser Val Lys Gly Leu Ser Arg Thr Thr Ile Leu Ser Ser Asp Gly Thr
                245                 250                 255
Cys Val Arg Ile Ser Tyr Arg Ser Phe Cys Ala Glu
            260                 265
```

<210> 36852
<211> 83
<212> PRT
<213> A.fumigatus

<400> 36852

```
His Ser Leu Ala His Cys Leu Asp Ile Leu Arg Gln Gln Leu Met Cys
1               5                  10                  15
Thr Ile Asp Thr Gly Val Leu Gly Gln Val Trp Ile His Pro Asp His
            20                  25                  30
Pro Glu Ala Tyr Val Asp Phe Asn Thr Glu His Gln Cys Lys Asn Phe
        35                  40                  45
Glu Ala Ile Arg Gln Tyr Ala Glu Lys Asn Gln Leu Pro Ala Gln Ile
    50                  55                  60
Pro Lys Asp Phe Leu Glu Pro Pro Lys Pro Gly Asp Arg Val Tyr Asp
65                  70                  75                  80
Glu Ile Pro
```

<210> 36853
<211> 65

<212> PRT
<213> A.fumigatus

<400> 36853
Asn Leu Leu Arg Gln Thr Leu Tyr Tyr Asn Tyr Asp Tyr Tyr His Lys
1 5 10 15
Leu Gly Gln Gly Ala Phe Lys Asn Asp Asp Phe Ile Val Arg Arg His
20 25 30
Val Cys Thr Tyr Phe Ile Pro Gln Phe Leu Arg Arg Val Arg Leu Thr
35 40 45
Phe Ala Ser Pro Leu Ser Gly His Pro Ala Thr Ala Ala His Val His
50 55 60
His
65

<210> 36854
<211> 85
<212> PRT
<213> A.fumigatus

<400> 36854
Ile Arg Asn Val Gln Asp Cys Glu Lys Leu Ile Glu Asn Phe Gly Ser
1 5 10 15
Val Ala Leu Leu Arg Lys Asp Asn Thr Phe Cys Ser Cys Gly Ile Ile
20 25 30
Glu Val Phe Ala Lys Phe His Ala Glu Thr Leu His Phe Arg Ala Glu
35 40 45
Phe Thr Trp Glu Leu Gly Ile Ser Glu Lys Val Val Leu Asp Cys Phe
50 55 60
Thr Arg Phe Ser Asp Ala Tyr Asn Ile Phe Glu Asn Ser Thr Met Phe
65 70 75 80
Cys Leu His Gly Val
85

<210> 36855
<211> 148
<212> PRT
<213> A.fumigatus

<400> 36855
Pro Val Val Gly Ser Gly Lys Thr Leu Ile Ala Val Leu Leu Leu Arg
1 5 10 15
His Thr Ile Leu Asn Glu Leu Asp Asp Arg Ala Asn Gly Lys Thr His
20 25 30
Arg Val Ser Phe Phe Leu Val Phe Val Leu Leu Ala Leu Gly Arg Cys
35 40 45
Ile Leu Thr Trp Cys Lys Val Asp Ser Val Thr Leu Ala Tyr Gln Gln
50 55 60
Ala Ala Val Leu Arg Asn Asn Ile Asp Gln Asn Val Ala His Phe Phe
65 70 75 80
Gly Ala Met Gly Thr Asp Leu Trp Asp Lys Arg Thr Trp Asp Lys His
85 90 95
Leu Gln Arg Asn Met Val Ile Val Cys Thr Ala Glu Ile Leu Asn Gln
100 105 110
Cys Leu Leu Asn Ser Tyr Val Arg Met Asp Gln Ile Asn Leu Leu Ile
115 120 125

```
Phe Asp Glu Ala His His Ala Lys Lys Asp His Pro Tyr Ala Arg Phe
    130                 135                 140
Val Glu His Phe
145
```

<210> 36856
<211> 267
<212> PRT
<213> A.fumigatus

<400> 36856

```
Gln Leu Arg Gln Ser Thr Gln Lys Ala Thr Ser Gln Lys Pro His Arg
1               5                  10                  15
Met Phe Ser Ala Gly Glu Gln Gly Asp Ile Gly Leu Thr Ser Cys Arg
            20                  25                  30
Arg Leu Glu Thr Phe Leu Asp Ser Arg Ile Ala Thr Thr Ser Lys Ile
        35                  40                  45
Thr Leu Leu Arg Glu Val Val Ser Arg Pro Ile Glu Lys Val Trp Ala
    50                  55                  60
Tyr Asn Arg Leu Glu Pro Pro Phe Ala Thr Glu Leu Tyr Lys Leu Met
65                  70                  75                  80
Asp Thr Arg Tyr Gly Asn Ile Lys Val Leu Glu Gly Val Tyr Arg Phe
                85                  90                  95
Ala Trp Asn Ala Ser Ser Glu Leu Gly Lys Trp Cys Ser Asp Arg Ala
            100                 105                 110
Trp Trp His Ala Leu Ala Asp Asp Val Leu Pro Lys Leu Glu Gly Asn
        115                 120                 125
Ile Asn Lys Leu Ile Glu Ser Asn Thr Met Lys Ala Glu His Gly Ala
    130                 135                 140
Val Phe Lys Asp Ile Ile Arg Ile Arg Glu Ala Ser Glu Thr Val Lys
145                 150                 155                 160
Asn Tyr Phe Phe Thr Asp Pro Glu Leu Pro Gly Glu Leu Ser Pro Lys
                165                 170                 175
Val Gln Arg Leu Arg Met Glu Leu Ser Lys His Phe Asn Asp Thr Thr
            180                 185                 190
Gly Thr Lys Cys Ile Val Phe Thr Gln Lys Arg Tyr Thr Ala Lys Ile
        195                 200                 205
Leu Asn Glu Leu Phe Thr Val Leu Asn Ile Pro Asn Leu Arg Pro Gly
    210                 215                 220
Val Leu Ile Gly Val Arg Pro Gly Asp Ile Gly Gly Met Asn Ile Thr
225                 230                 235                 240
Phe Arg Gln Gln Phe Leu Ala Leu Val Lys Phe Arg Thr Gly Glu Ile
                245                 250                 255
Asn Cys Leu Val Arg Phe Thr Ser Lys Met Leu
            260                 265
```

<210> 36857
<211> 496
<212> PRT
<213> A.fumigatus

<400> 36857

```
Glu Asn His Glu Lys Leu Thr Phe His Ser Asp Asp Ala Gly Ser Ala
1               5                  10                  15
Cys Arg Gly Ala Ile Asn Met Lys Ile Ala Arg Leu Ser Met Asp Ala
            20                  25                  30
```

```
Gln Asp Lys Thr Arg Phe Glu Ile His Gly Lys Ser Ser Val Lys Tyr
        35                  40                  45
His Leu Lys Ala Asn His Val Val Glu Ala Lys Arg Trp Phe Trp Thr
    50                  55                  60
Leu Asn Asn Ala Ile Gln Trp Ala Lys Asp Glu Ala Lys Glu Glu Gln
65                  70                  75                  80
Lys Arg Gln Thr Arg His Ala Glu Ala Leu Arg Gln Ala Lys Met Asp
                85                  90                  95
Gln Ile Glu Gly Arg Ser Pro Thr Glu Ala Ala Thr Glu Ser Pro Asn
            100                 105                 110
Leu Ala Ala Ser Lys Ser Asn Gly Lys Gly Leu Ala Pro Pro Ser Leu
        115                 120                 125
Ser Val Pro Ser Gly Asn Thr Ser Lys Leu Thr Thr Tyr Gly Ser Arg
    130                 135                 140
Thr Thr Leu Asp Ser Val Pro Ala Asp Glu Glu Val Ser Ile His Gly
145                 150                 155                 160
Ser Tyr Asp Gln Ser Val Leu Gln Asn Glu Val Asn Arg Val Val Ser
                165                 170                 175
His Val Thr Ser His Leu Asp Gly Glu Gly Asp Glu Asp Asp Tyr Gly
            180                 185                 190
Glu Tyr Ala Ser Ser Arg Asp Ile Ser Pro Ser Asp Lys Asp Ala Leu
        195                 200                 205
Asn Ile Thr Ala Gln Ser Ala Lys Leu Gln Leu Glu Ile Leu Ala Asn
    210                 215                 220
Val Val Ala Ala Leu Gln Ala Glu Lys Ser Lys Asp Pro Asn Leu Pro
225                 230                 235                 240
Ile Ser Asp Pro Thr Val Gly Gln Ala Leu Val Ala Tyr Glu Ala Ala
                245                 250                 255
Val Ser Ser Leu Glu Gly Leu Val Gln Asn Leu Leu Lys Ile Ser Arg
            260                 265                 270
Asp Arg Asp Ser Tyr Trp Gln Tyr Arg Leu Asn Arg Glu Ala Tyr Leu
        275                 280                 285
Arg Lys Met Trp Glu Glu Ser Met Ala Arg Ile Ala Gln Glu His Glu
    290                 295                 300
Glu Leu Gln Ser Lys Met Gly Glu Ser Glu Glu Lys Arg Arg Arg Thr
305                 310                 315                 320
Lys Arg Ala Leu Lys Glu Ala Leu Glu Gly Val Ser Ala His Thr Ser
                325                 330                 335
Arg Arg Gly Ser Lys Val Ala Ser Arg Ile Gln Val Ser Gly Glu Asp
            340                 345                 350
Ser Arg Val Gly Gly Asp Glu Ala Lys Glu Leu Ile Ala Gln Pro Met
        355                 360                 365
Glu Tyr Met Thr Glu Asn Glu Glu Asn Glu Ser Gly Lys Ser Leu Arg
    370                 375                 380
Arg Lys Arg Ser Ala Leu Ser Arg Ile Ser Ser Leu Tyr Asp Ser Gly
385                 390                 395                 400
Ser Asp Asp Asp Asp Glu Phe Phe Asp Ala Ile Asp Ala Gly Glu Ile
                405                 410                 415
Glu Val Glu Asp Met Thr Thr Ser Lys Val Met Glu Lys Glu Lys Glu
            420                 425                 430
Lys Pro Glu Leu Glu Ser Thr Glu Pro Arg Ala Ala Lys Arg Asp Glu
        435                 440                 445
Ile Val Pro Ser Phe Lys Gly Tyr Glu Glu Pro Val Arg Thr Arg Leu
    450                 455                 460
Lys Leu Asp Asn Asp Asn Arg Pro Lys Ile Ser Leu Trp Val Ser Asp
465                 470                 475                 480
```

```
Cys Glu Tyr Met Leu Lys Leu Gly Phe Lys Gln Ser Lys Val Met Leu
                485                 490                 495

<210> 36858
<211> 122
<212> PRT
<213> A.fumigatus

<400> 36858
Gly Ile Leu Lys Ser Met Ile Gly Lys Asp Met Thr Lys Met Thr Leu
1               5                   10                  15
Pro Val Ser Phe Asn Glu Pro Thr Ser Leu Leu Gln Arg Val Ala Glu
            20                  25                  30
Asp Leu Glu Tyr Ala Asp Leu Leu Asp Ile Ala Ala Asp Arg Ser Asp
        35                  40                  45
Ser Met Glu Arg Leu Val Tyr Val Ala Ala Tyr Ala Ala Ser Glu Tyr
    50                  55                  60
Ala Ser Thr Ile Gly Arg Val Ala Lys Pro Phe Asn Pro Leu Leu Gly
65                  70                  75                  80
Glu Thr Phe Glu Tyr Ala Arg Pro Asp Lys Gly Tyr Arg Phe Phe Ile
                85                  90                  95
Glu Gln Val Ser His His Pro Pro Ile Gly Ala Ala Trp Ala Glu Ser
            100                 105                 110
Pro Lys Trp Asp Tyr Trp Val Arg Phe Glu
        115                 120

<210> 36859
<211> 62
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (30),(31),(40)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36859
Ala Cys Val Leu Asn Ser Arg Pro Phe Ser Pro Ala Thr Val Asp Met
1               5                   10                  15
Pro Gly Glu Tyr Thr Cys Gly Arg Cys Leu Gln Ala Leu Xaa Xaa Lys
            20                  25                  30
Val Ser Ile Gln Gly Ser Thr Xaa Arg Leu Gln Thr Val Ile Asn Ser
        35                  40                  45
Pro Gly Pro Arg Ser Ser Pro Leu Phe Val Leu Pro Lys Val
    50                  55                  60

<210> 36860
<211> 91
<212> PRT
<213> A.fumigatus

<400> 36860
Ser Ile Arg Gln Asp His Ala Ala Pro Pro Ser Ser Phe Ser Arg Lys
1               5                   10                  15
Phe Ser Ser Gln Asn Gln Pro Leu Leu Cys Thr Pro Ile Leu Pro Gly
            20                  25                  30
```

```
Ala Ile Glu Thr Asp Ile Met Pro Ile Phe Val Ala Phe Ile Cys Cys
        35                  40                  45
Val Ser Asn Gly Lys Ala Ala Asn Ala Pro Ser Leu Val His Leu Phe
    50                  55                  60
Glu Pro Ser Thr Gly Asp Lys Ser Phe Ala Glu Thr Lys Gln Pro Leu
65                  70                  75                  80
Ser Pro Phe Leu Glu Ile Pro Cys Thr Arg Asp
                85                  90
```

<210> 36861
<211> 273
<212> PRT
<213> A.fumigatus

<400> 36861

```
Ile Thr Leu Ser Cys Asp Thr Val Ser Phe Phe Leu Asn Phe Phe Pro
1               5                   10                  15
Gln Gly Glu Ser Ala Leu Lys Ser Lys Phe Tyr Gly Lys Ser Phe Asp
            20                  25                  30
Ile Asn Leu Leu Gly Thr Trp Phe Leu Lys Leu Arg Pro Val Ser Gly
        35                  40                  45
Gly Glu Glu Leu Tyr Thr Trp Lys Lys Val Thr Ser Ser Val Ile Gly
    50                  55                  60
Ile Ile Thr Gly Asn Pro Thr Val Asp Asn Tyr Gly Leu Met Glu Ile
65                  70                  75                  80
Lys Asn Trp Thr Thr Gly Glu Val Cys Tyr Leu Asp Phe Lys Pro Arg
                85                  90                  95
Gly Trp Lys Ala Ser Ser Ala Tyr Gln Val Thr Gly Lys Val Val Asp
            100                 105                 110
Arg Asp Gly Thr Pro Arg Trp Ser Ile Gly Gly Arg Trp Asn Asp Lys
        115                 120                 125
Ile Tyr Ala Arg His Thr Pro Gly Phe Glu Ala Gln Val Ser Gly Gln
    130                 135                 140
Asp Pro Glu Ser Ala Lys Thr Phe Leu Val Trp Gln Ser His Pro Arg
145                 150                 155                 160
Pro Ser Gly Ile Pro Phe Asn Leu Thr Pro Phe Val Ile Thr Leu Asn
                165                 170                 175
Ala Leu Pro Glu Gly Leu Arg Glu His Leu Pro Pro Thr Asp Thr Arg
            180                 185                 190
Leu Arg Pro Asp Gln Arg Ala Met Glu Asp Gly Glu Tyr Asp Leu Ala
        195                 200                 205
Ala Asn Glu Lys His Arg Val Glu Glu Lys Gln Arg Ala Lys Arg Arg
    210                 215                 220
Glu Arg Glu Ala Lys Gly Glu Glu Tyr Arg Pro Gln Trp Phe Ile Arg
225                 230                 235                 240
Ala Lys Cys Pro Ile Thr Gly Glu Glu Tyr Trp Ala His Asn Gly Lys
                245                 250                 255
Tyr Trp Glu Cys Arg Glu Arg His Asp Trp Ser Ala Ser Glu Asp Ile
            260                 265                 270
Phe
```

<210> 36862
<211> 339
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (44),(53)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36862
Tyr Asn Gly Ile Leu Gly Gly Gln Lys Leu Gln Leu Leu Ser Met Cys
1 5 10 15
Thr Gln Gln Pro Ser Ile Gln Pro Arg Asp Ser Arg His Ala Trp Arg
20 25 30
Val Tyr Leu Arg Thr Leu Ser Ala Gly Pro Pro Xaa Glu Gly Phe Tyr
35 40 45
Ser Arg Phe Tyr Xaa Ser Ile Ala Asn Cys Asp Gln Phe Ala Arg Thr
50 55 60
Thr Gln Leu Pro Pro Leu Arg Ser Pro Glu Ser Leu Val Arg Arg Thr
65 70 75 80
Asn His Cys Phe Ala Pro Arg Ser Ser Gln Gly Gln Leu Lys Arg Thr
85 90 95
Ser Cys Pro Ser Leu Ser Pro Ser Ser Ala Ala Ser Pro Thr Ala Arg
100 105 110
Gln Leu Thr His Arg Ala Ser Ser Thr Ser Ser Ser Gln Ala Gln Glu
115 120 125
Thr Arg Ala Leu Leu Lys Pro Asn Asn Leu Phe His Pro Phe Ser Lys
130 135 140
Ser Pro Ala Pro Ala Ile Arg Gln Arg Ala Ala Phe Ile Lys Gln Asn
145 150 155 160
Ala Phe Cys Pro His Pro Ser His Gln Gln Thr Arg Val Ala Leu Ser
165 170 175
Pro His Asp Pro Glu Ser Arg Lys Ser Pro Lys Ser Ala Leu Pro Pro
180 185 190
Ala His Ser His Phe Glu Cys Pro Asp Cys Gly Val Pro Ile Tyr Cys
195 200 205
Ser Glu Glu His Trp Met Asp Asp Phe Glu Ala His Leu Glu Ile Cys
210 215 220
Asp Thr Ile Arg Gln Ile Asn Glu Asp Asp His Asp Leu His Ser Gly
225 230 235 240
Arg Phe Phe Pro Glu Phe Thr Tyr Pro Gly Pro Gln Asp Asp Asn Phe
245 250 255
Val Ile Asn Met Thr Asn Trp Asp Thr Phe Leu Tyr Thr Arg Glu Phe
260 265 270
Asp Ala Ile Asn His Asp Arg Ser Met Arg Gln Val Thr Arg Met Leu
275 280 285
Thr Tyr Pro Leu Thr Ile Gly Ser Val Leu His Glu Leu Ser Pro Tyr
290 295 300
Ser Ile Arg Lys Gly Gly Arg Leu Thr Thr Glu Gly Leu Lys Ser Val
305 310 315 320
Ser Gly Lys Leu His Leu Ser Val Leu Ser Gln Leu Pro Val Asn Cys
325 330 335
Pro Ser Ser

<210> 36863
<211> 272
<212> PRT
<213> A.fumigatus

<400> 36863
Ala Cys Thr Lys Ile Tyr Leu Tyr Pro Ser Phe Ser Pro Phe Ser Pro
1 5 10 15
His Ser Ser Ser Val Leu Arg Gln Ser Ser Asn Leu Arg Tyr Pro Leu
20 25 30
His Ser Arg Met Ser Lys Leu Ser Asp Tyr Arg Leu Leu Cys Phe Asp
35 40 45
Val Tyr Gly Thr Leu Val Asp Trp Glu Ser Gly Ile Val Asn Thr Phe
50 55 60
Gln Pro Ile Leu Asp Lys Asn Asn Ser Ser Ile Ser Arg Glu His Leu
65 70 75 80
Leu Ser Val Tyr His Glu Leu Glu His Glu Gln Gln Ala Gln Thr Pro
85 90 95
Asp Met Pro Tyr Ser Lys Leu Leu Thr Lys Ile His Pro Lys Leu Ala
100 105 110
His Arg Leu Ser Leu Ala Pro Pro Thr Glu Glu Glu Ser Ile Ala Phe
115 120 125
Gly Glu Ser Val Gly Thr Trp Pro Ala Phe Pro Asp Thr Val Asp Ala
130 135 140
Leu Lys Arg Leu Ser Lys His Tyr Lys Leu Val Val Leu Ser Asn Val
145 150 155 160
Asp Arg Glu Ser Phe Ala Lys Thr Asn Ala Gly Ser Leu Gln Gly Val
165 170 175
Lys Phe Asp Arg Ile Ile Thr Ala Gln Asp Val Gly Ser Tyr Lys Pro
180 185 190
Asp Met Arg Asn Phe Glu Tyr Met Leu Lys Thr Val Gln Ala Glu Leu
195 200 205
Gly Val Asp Lys Ser Gln Val Leu Gln Thr Ala Gln Ser Gln Phe His
210 215 220
Asp His Gln Pro Ala Ser Lys Val Gly Ile Lys Ser Val Trp Ile Val
225 230 235 240
Arg Pro Gly Ala Val Met Gly Asn Thr Lys His Thr Ile Tyr Asp Trp
245 250 255
Lys Phe Asp Thr Leu Gly Asp Met Ala His Ala Val Glu Ser Gly Gln
260 265 270

<210> 36864
<211> 240
<212> PRT
<213> A.fumigatus

<400> 36864
Leu Ala Pro Cys Ser Leu Leu Leu Ser Ser Leu Ser Asn Thr Gln Arg
1 5 10 15
Tyr Lys Pro Thr Phe His His Ser Ser Leu Arg Leu Thr Ile Gln Asp
20 25 30
Ser Leu Phe Pro Ala Arg Cys Trp Pro Asp Pro Cys Ala Gly Ile Thr
35 40 45
Phe Gln Asn Asp Thr Tyr Val Cys Gly Asp Pro Arg Leu Gly Pro Val
50 55 60
Val Leu Pro Gln Lys Phe Pro Leu Asn Asn Glu Leu Arg Thr Tyr Ala
65 70 75 80
Arg Phe Gly Ala Leu Cys Pro Ala Glu Phe Leu Asp Lys Trp Ala Thr
85 90 95
Asp Val Ala Pro Asn Gly Thr Tyr Ile Tyr Pro Pro Ala Asn Gly Phe

```
            100                 105                 110
Ala Leu Asp Thr Glu Glu Gln Pro Ile Leu Gly Asn Ala Thr Leu Pro
        115                 120                 125
Val Gly Met Lys Leu Asp Arg Phe Gly Ser Glu Tyr Gly Thr Phe Leu
    130                 135                 140
Ala Pro Leu Gly Ala Pro Tyr Ile Glu Arg Ser Leu Pro Pro Ser Asn
145                 150                 155                 160
Leu Asn Thr Phe Asp Gly Met Tyr Pro Tyr Asn Tyr His Val Tyr Gln
                165                 170                 175
Val Thr Lys Glu Phe Val Val Gly Leu Gly Pro Ile Ala Pro Trp Phe
            180                 185                 190
Glu Gln Pro Gly Met Gly Thr Gln Phe Val Thr Tyr Thr Asn Val Leu
        195                 200                 205
Gly Leu Ile Asp Asp Gly Tyr Leu Arg Arg Leu Asp Glu Ser Glu Tyr
    210                 215                 220
Asp Glu Lys Val Glu Tyr Ser Asn Pro Tyr Thr Pro Gly Pro Asn Gln
225                 230                 235                 240
```

<210> 36865
<211> 184
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (134)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36865

```
Tyr Gln Ile Tyr Gly Val Leu Ser Gly Ala Ser Leu Met Glu Thr Ala
1               5                   10                  15
Ala Glu Val Ile Leu Arg Pro Val Pro Pro Leu Thr Gln Val Asn Gly
            20                  25                  30
Thr Arg Tyr Val Ser Asn Ser Ser Glu Val Ile Ser Leu Arg Phe Phe
        35                  40                  45
His Glu Trp Gln Ser Phe Thr Gln Asp Val Leu Glu Ala Ser Ala Ser
    50                  55                  60
Leu Asp Leu Ser His Pro Val Pro Tyr Thr Asp Asp Val Ser Glu Asn
65                  70                  75                  80
Tyr Val Val Gly Ser Glu Leu Gly Leu Ile Gly Arg Phe Ser Lys Asn
                85                  90                  95
Val Cys Asp Pro Val Ser Lys Val Phe Ala Thr Thr Cys Leu Ser His
            100                 105                 110
Leu Lys Phe Gly Asp Tyr Gln Ser Ala Ala Gly Pro Thr Asp Thr Ser
        115                 120                 125
Gln Val Pro Gly Ile Xaa Met Phe Asn Thr Thr Gly Pro Pro Arg Pro
    130                 135                 140
Ala Ala Val Gly Glu Leu Lys Ser Phe Trp Thr Val Glu Leu Glu Asp
145                 150                 155                 160
Tyr Ser Ile Arg Glu Gly Tyr Gln Arg Leu Ile Gly Ile Gln His His
                165                 170                 175
Ile Gly Lys Ser Ser Tyr Thr Leu
            180
```

<210> 36866
<211> 127

<212> PRT
<213> A.fumigatus

<400> 36866
Ser Val Arg Phe Ile Ser Leu Lys His Phe Lys Tyr Gly Val Glu Phe
1 5 10 15
Tyr His Ser Leu Pro Ala Phe Tyr Ser Met Gly His Ile Thr Gln Arg
20 25 30
Val Glu Phe Pro Val Val Asp Ser Met Leu Gly Val Ala His Asn Ser
35 40 45
Ser Trp Ser Tyr Asn Pro His Arg Leu Asp Pro Asp Phe Gly Gly Arg
50 55 60
Leu Val Val Met Glu Leu Thr Leu Arg Ser Leu Gln Asp Leu Thr Leu
65 70 75 80
Val Asn Pro Gln Leu Gly Leu Tyr Cys Leu Gln His Val Phe Glu Ile
85 90 95
Ala His Val Arg Leu Val Arg Ala His Val Leu Arg Gly Asp Asp Ala
100 105 110
Ile Glu Leu Asp Ala Leu Gln Thr Pro Arg Val Arg Leu Gly Glu
115 120 125

<210> 36867
<211> 452
<212> PRT
<213> A.fumigatus

<400> 36867
Pro Lys Val Asn Ala Ala Asp Thr Arg Ser Glu Leu Thr Arg Arg Lys
1 5 10 15
Thr Arg Leu His Arg Asp Ile Leu Arg Ser His Leu His Ala Asn Ser
20 25 30
Ser Val Leu Gln Ser Ala Gly Ser Ser His Ala His Cys Phe Tyr Phe
35 40 45
Lys Gln Asn Leu Val Leu Lys Pro Asp Ala Pro Gln Gly Asn Phe His
50 55 60
Gly Trp Gly Pro Glu Thr Val Pro Leu Leu Arg Asp Gln Trp Ser Ala
65 70 75 80
Leu Ser Glu Thr Arg Asp Gln Ser Glu Arg Gly Arg Gln Ser Pro Arg
85 90 95
Gly Ser Asn Arg Asp Arg Gly Arg Asp Arg Phe Arg Asp Arg Glu Arg
100 105 110
Arg Arg Arg Ser Lys Gly Asn Gly Arg Ile Pro Pro Leu Arg Ser Pro
115 120 125
Pro Pro Ser Arg Ser Gln Pro Gln Ser Glu Leu Gly Gly Pro Arg Ser
130 135 140
Tyr Arg Glu Ile Ser Pro Asn Asn Thr Ser Pro Arg Gly Ser Ser Gly
145 150 155 160
Leu Pro Tyr Ser Glu Ala Arg Gln Arg Gln Asn Gln Asp His Arg Gln
165 170 175
Phe Val Asp Pro Gln Pro Leu Glu Gly Glu Arg Pro Thr Gly Arg Asp
180 185 190
Tyr Arg Arg Asp Asn Ser Pro Ser Ala Pro Pro Pro Phe Lys Arg Lys
195 200 205
Arg Thr Gln Ser Pro Ser Pro Val Arg Pro Phe Ser Pro Arg Gln Asp
210 215 220
Pro Ser His His His Pro Ala Ser Glu Gln Phe Asp Glu Phe Asp Arg

```
225                 230                 235                 240
Gly Tyr Pro His Lys Lys Arg Gly Arg Tyr Pro Gly Arg Gly Arg Ala
                245                 250                 255
Arg Arg Arg Ser Pro Arg Arg Gly Arg Asp Arg Arg Arg Lys Glu Ser
            260                 265                 270
Asp Arg Phe Lys Gly Leu Lys Ser Pro Leu Arg Gly Pro Arg Ser Pro
        275                 280                 285
Arg His Pro Arg Glu Arg Tyr Asn Ser Pro Asp Pro Ala Asp Asp Ile
    290                 295                 300
Asp Gln Glu Tyr His His Arg Ser Pro Ser Arg Tyr Ser Ile Asn Ser
305                 310                 315                 320
Ala Gly Ser Arg Phe Ser Ala Thr Ser Arg His Ser Phe Arg Val Asp
                325                 330                 335
Ala Thr Met Asn Pro Arg Pro Ile Gln Ser Ala Met Asn Asn Ser Phe
            340                 345                 350
Arg Ser Ser Ser Pro Pro Arg Pro Val Pro Ser Phe Asn Ala Glu Ile
        355                 360                 365
Thr Gly Val Pro Thr Glu Gly Asp Pro Asn Ala Arg Glu Thr Phe Pro
    370                 375                 380
Phe Asn Gly Glu Arg Ala Leu Asn Ala Asn Asp Asn Gln Leu Ser His
385                 390                 395                 400
Pro Ser Arg Leu Gln Ala Asp Thr Ser Gln Tyr Ser Thr Ser Pro Lys
                405                 410                 415
Tyr Gly Pro Ser Ser Asn Ser Tyr Gln Gly Ser Pro Gln Ser Thr Ser
            420                 425                 430
Pro His Pro Gly Arg Arg Gly Gly Leu Thr Gly Gln Ser Pro His Gln
        435                 440                 445
Lys Pro Arg Gly
    450
```

<210> 36868
<211> 107
<212> PRT
<213> A.fumigatus

<400> 36868

```
Arg Gln Ala Tyr Val Arg Trp Gln Tyr Ile Pro Arg Ala His Glu Ala
1               5                   10                  15
Gly Leu Phe Val Phe Gly Val Pro Pro Asn Glu Val Gly Ser Leu Gln
            20                  25                  30
Trp Glu Gly Tyr Gly Arg Met Ala Arg Asn Ala Lys Ile Gln Arg Pro
        35                  40                  45
Asp Glu Leu Val Leu Arg Glu Ile Lys Asp Arg Asn Leu Asp Met Gln
    50                  55                  60
Arg Met Tyr Val Asp Ile Ile Leu Ser Asp Lys Leu Glu Pro Lys Glu
65                  70                  75                  80
Asp Val Ser Pro Tyr Arg Trp His Glu Glu Ile Met Lys Glu Phe Glu
                85                  90                  95
Asn Leu Pro Trp Met Gln Val Val Asn Val Lys
            100                 105
```

<210> 36869
<211> 108
<212> PRT
<213> A.fumigatus

<400> 36869
Cys Leu Leu His Leu Gly Trp Ser Leu Ile Ala Ser Arg Ala Val Leu
1 5 10 15
Gly Thr Thr Leu Thr Gln Pro Thr Met Ser Val Ala Pro His Ile Asn
20 25 30
Asn Thr Tyr Gln Asp Val Glu Leu Gln Arg Arg Cys Leu Gly Arg Leu
35 40 45
Ser Ser Thr Trp Gln Phe Cys Ala Leu Asn Leu Ile Leu Ala Leu Tyr
50 55 60
His Thr Phe Gln Lys Pro Thr Phe Val Ser Met Ile Ile His Gln Val
65 70 75 80
Cys Phe Ser His Asp Cys Ile Gln Asp Val Arg Thr Ala Ser Thr Thr
85 90 95
Thr Ser Pro Gln Ile Lys Ser Thr Gly Ser Leu Ser
100 105

<210> 36870
<211> 66
<212> PRT
<213> A.fumigatus

<400> 36870
Arg Thr Thr Thr His Ile Pro Lys Gln Leu Arg Asp Val Ala Phe Ser
1 5 10 15
Ile Ile Gln Arg Ser Thr Gln Ser Asp Leu Ser Ser Ala Leu Ser Asp
20 25 30
Glu Pro Asn Ser His Ser Tyr Met Met Pro Pro Leu Thr His Thr Tyr
35 40 45
Gln Ala Asp Met Thr Lys Leu Phe Lys Ser Arg Gly Gln Arg Leu Tyr
50 55 60
Leu Ile
65

<210> 36871
<211> 280
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (270)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36871
Thr Ser Arg Leu Ser Asp Phe Tyr Phe Ile Ala Ala Lys Leu Val Pro
1 5 10 15
Met Gly Phe Thr Thr Ala Thr Glu Met His Ala Arg Arg Ser Glu Leu
20 25 30
Ile Ser Ile Thr Thr Gly Ser Lys Gln Leu Asp Thr Leu Leu Gly Gly
35 40 45
Gly Ile Glu Thr Gly Ser Ile Thr Glu Ile Phe Gly Glu Phe Arg Thr
50 55 60
Gly Lys Ser Gln Ile Cys His Thr Leu Ala Val Thr Cys Gln Leu Pro
65 70 75 80
Phe Asp Met Gly Gly Gly Glu Gly Lys Cys Leu Tyr Ile Asp Thr Glu
85 90 95

```
Gly Thr Phe Arg Pro Val Arg Leu Leu Ala Val Ala Gln Arg Tyr Gly
            100                 105                 110
Leu Val Gly Glu Glu Val Leu Asp Asn Val Ala Tyr Ala Arg Ala Tyr
        115                 120                 125
Asn Ser Asp His Gln Leu Gln Leu Leu Asn Gln Ala Ser Gln Met Met
    130                 135                 140
Cys Glu Thr Arg Phe Ser Leu Leu Val Val Asp Ser Ala Thr Ser Leu
145                 150                 155                 160
Tyr Arg Thr Asp Phe Asn Gly Arg Gly Glu Leu Ser Ser Arg Gln Thr
                165                 170                 175
His Leu Ala Lys Phe Met Arg Thr Leu Gln Arg Leu Ala Asp Glu Phe
            180                 185                 190
Gly Ile Ala Val Val Ile Thr Asn Gln Val Val Ala Gln Val Asp Gly
        195                 200                 205
Gly Pro Ser Ala Met Phe Asn Pro Asp Pro Lys Lys Pro Ile Gly Gly
    210                 215                 220
Asn Ile Ile Ala His Ala Ser Thr Thr Arg Leu Ser Leu Lys Lys Gly
225                 230                 235                 240
Arg Gly Glu Thr Arg Val Cys Lys Ile Tyr Asp Ser Pro Cys Leu Pro
                245                 250                 255
Glu Ser Asp Cys Leu Phe Ala Ile Asn Glu Asp Gly Ile Xaa Asp Pro
            260                 265                 270
Thr Pro Lys Asp Leu Glu Asn Asp
        275                 280
```

<210> 36872
<211> 184
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (184)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36872

```
Cys Glu Ser Val Ile Leu Thr Ser Leu Cys Phe Glu Gly Ser His Trp
1               5                   10                  15
Thr Pro Leu Thr Phe Asp Glu Arg Thr Trp Gly Ala Ser Ile Arg Gly
            20                  25                  30
Leu Val Arg Trp His Ala Gln Pro Thr Ile Lys Tyr Gln Gly Arg Asn
        35                  40                  45
Leu Asp Val Asn Ala Ala Asn Ala Ile Ala Thr Thr Ser Asp Gln Thr
    50                  55                  60
Tyr Ala Phe Ala Val Cys Leu Asn His Thr Leu Lys Ile Trp Asn Leu
65                  70                  75                  80
Ala Thr Asn Arg Leu Ala Ala Thr Lys Asp Leu Leu Asn Arg Pro Val
                85                  90                  95
Gln Gln Gln Glu Ser Ala Ala Tyr Ser Leu Asn Pro Ala Glu Ser Ser
            100                 105                 110
Phe Ile Arg Val Phe Asn Val Glu Arg Ala Leu Asp Gly Gly Tyr Arg
        115                 120                 125
Tyr Tyr Ile Val Thr Tyr Ser Pro Phe Glu Asp Gly Arg Phe Lys Phe
    130                 135                 140
Trp Ala Val Lys Gly Gly Leu Thr Ser Gln Leu Val Val Glu Asp Leu
145                 150                 155                 160
```

```
Phe Pro Asp Ala Ala Leu Thr Pro Leu Asp Pro Asp Pro Thr Gly Ser
                165                 170                 175
Met Phe Trp Ser Ile Ala Asp Xaa
            180
```

<210> 36873
<211> 149
<212> PRT
<213> A.fumigatus

<400> 36873

```
Ala Gln Asp Leu His Leu Ala Ser Pro Ile Gln Thr Glu Ser Phe Gln
1               5                  10                  15
Val Gly Arg Val Lys Val Arg Arg Arg Gln Lys Lys Arg Cys Arg Ser
            20                  25                  30
Gly Arg Phe Pro Leu Pro Gln Asp Val Val Pro Ala Leu His Lys Met
        35                  40                  45
Pro Arg Glu Ile Pro Gly Arg Leu Thr Asp Asn Val His Arg Asp Val
    50                  55                  60
Met Pro Trp His Pro Gly Tyr Asp Ile Thr Val Ile His Leu Leu Val
65                  70                  75                  80
Arg Leu Val Gln Ile Val Lys Val Leu Asn Pro Arg Val Arg Val Ile
                85                  90                  95
Leu Thr Gly Pro Glu Leu Ala Val Val Cys Val Leu Gly Ser Ile Gly
            100                 105                 110
Arg Leu Lys Ala Ser Arg Leu Val Val Ser Glu Lys Met Leu Arg Ser
        115                 120                 125
Val Pro Pro Ser Glu Thr Lys Val Asp Ser Ala Asn Glu Ser His Gly
    130                 135                 140
Met Val Asp Gln Ala
145
```

<210> 36874
<211> 1183
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1144),(1159),(1160),(1164)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36874

```
Gly Lys Tyr Arg Gly Gly Gly Pro Gly Pro Phe Pro Gly Phe Pro Trp
1               5                  10                  15
Glu Gly Pro Phe Pro Lys Tyr Leu Glu Glu Phe Arg Gly Leu Glu Lys
            20                  25                  30
Trp Arg Trp Lys Leu Lys Lys Thr Glu Gly Gly Asn Gly Asp Cys Pro
        35                  40                  45
Arg Lys Arg Pro Ala Ala Met Arg Gly Ser Gly Gly Arg Lys Gln Gln
    50                  55                  60
Gln Gly Ala Thr Pro Thr Val Arg Arg Tyr Ile Pro Gly Asp Asn Gln
65                  70                  75                  80
Ala Leu Pro Ile Pro Glu Gly Glu Thr Asn Gly Gly His Ser Gly Ala
                85                  90                  95
Ala Glu Pro Gly Gln Ser Thr Lys Arg Glu Pro Tyr Pro Glu Arg Gln
```

```
                100                 105                 110
Arg Lys Lys Leu Glu Ala Tyr Leu Gln Lys Met Ile Arg Phe Leu Ile
            115                 120                 125
Phe Lys Ala Asp Ser Asn Arg Leu Cys Lys Phe Leu Glu Leu Ser Ala
        130                 135                 140
Leu Gly Val Arg Leu Ala Ser Glu Gly Ser Tyr His Gly Lys Glu Gly
145                 150                 155                 160
Tyr Leu Ile Ile Gln Ser Ser Lys Gly Leu Asp Phe Arg Arg Ala Leu
                165                 170                 175
Thr Pro Ala Met Val Lys Lys Arg His Ser Pro Lys Trp Phe Leu Val
            180                 185                 190
Arg His Ser Tyr Leu Val Cys Val Asp Ser Pro Glu Glu Met Asn Ile
        195                 200                 205
Tyr Asp Val Phe Leu Val Asp Pro Phe Phe Lys Leu Gln Thr Gln Lys
    210                 215                 220
Ile Ser Leu Arg Asn Gln Lys Ala Lys Glu Leu Ala Lys Ser Ala Lys
225                 230                 235                 240
Glu Ser Ala Arg His Pro Gln His His Thr Leu Arg Leu Glu Asn Ser
                245                 250                 255
Glu Arg Lys Leu Arg Leu Leu Ala Arg Asn Glu Arg Gln Leu His Gln
            260                 265                 270
Phe Glu Asp Ser Ile Arg Phe Met Val Asn Asn Thr Pro Trp Val Lys
        275                 280                 285
Pro Asn Arg Phe Asp Ser Phe Ala Pro Val Arg Gln Asn Cys Phe Ala
    290                 295                 300
Gln Trp Leu Val Asp Ala Arg Asp His Met Trp Met Val Ser Arg Ala
305                 310                 315                 320
Ile Asn Gln Ala Lys Asp Val Ile Tyr Ile His Asp Trp Trp Leu Ser
                325                 330                 335
Pro Glu Leu Tyr Leu Arg Arg Pro Ala Ala Ile Ser Gln Lys Trp Arg
            340                 345                 350
Leu Asp Arg Leu Leu Gln Arg Lys Ala Arg Glu Gly Val Lys Ile Phe
        355                 360                 365
Val Ile Met Tyr Arg Asn Ile Asn Ser Ala Ile Pro Ile Asp Ser Glu
    370                 375                 380
Tyr Ser Lys Phe Ser Leu Leu Asp Leu His Pro Asn Ile Phe Val Gln
385                 390                 395                 400
Arg Ser Pro Asn Gln Phe Arg Gln Asn Thr Phe Phe Trp Ala His His
                405                 410                 415
Glu Lys Leu Cys Leu Ile Asp His Thr Val Ala Phe Val Gly Gly Ile
            420                 425                 430
Asp Leu Cys Phe Gly Arg Trp Asp Thr Pro Gln His Leu Leu Thr Asp
        435                 440                 445
Asp Lys Pro Thr Gly Phe Glu Thr Pro Asp Gly Pro Lys Asp Ala Asp
    450                 455                 460
His Cys Gln Leu Trp Pro Gly Lys Asp Tyr Ser Asn Pro Arg Ile Gln
465                 470                 475                 480
Asp Phe Tyr Asp Leu Asp Lys Pro Tyr Glu Glu Met Tyr Asp Arg Asn
                485                 490                 495
Val Ile Pro Arg Met Pro Trp His Asp Ile Ser Met His Val Val Gly
            500                 505                 510
Gln Pro Ala Arg Asp Leu Thr Arg His Phe Val Gln Arg Trp Asn Tyr
        515                 520                 525
Ile Leu Arg Gln Arg Lys Pro Thr Arg Pro Thr Pro Phe Leu Leu Pro
    530                 535                 540
Pro Pro Asp Phe Asp Pro Ala Asp Leu Glu Ala Leu Gly Leu Asp Gly
```

```
545                 550                 555                 560
Thr Cys Glu Val Gln Ile Leu Arg Ser Ser Ser Met Trp Ser Thr Gly
                565                 570                 575
Thr Pro Asp Val Thr Glu His Ser Ile Met Asn Ala Tyr Val Lys Leu
            580                 585                 590
Ile Glu Glu Ser Asp His Phe Val Tyr Ile Glu Asn Gln Phe Phe Ile
        595                 600                 605
Ser Thr Cys Glu Ile Asp Gly Arg Lys Ile Glu Asn Leu Ile Gly Asp
    610                 615                 620
Ala Leu Val Glu Arg Ile Ile Arg Ala His Lys Asn Gln Glu Ala Trp
625                 630                 635                 640
Arg Ala Val Ile Val Ile Pro Leu Met Pro Gly Phe Gln Asn Thr Val
                645                 650                 655
Asp Ser Glu Gly Gly Thr Ser Val Arg Leu Ile Met Gln Cys Gln Tyr
            660                 665                 670
Arg Ser Ile Cys Arg Gly Glu Thr Ser Ile Phe Gly Arg Leu Arg Ala
        675                 680                 685
Leu Gly Ile Asp Pro Glu Asp Tyr Ile Gln Phe Phe Ser Leu Arg Ala
    690                 695                 700
Trp Gly Lys Ile Gly Pro Gln Lys Gln Leu Val Thr Glu Gln Leu Tyr
705                 710                 715                 720
Ile His Ala Lys Cys Met Val Val Asp Asp Arg Ala Ala Ile Ile Gly
                725                 730                 735
Ser Ala Asn Ile Asn Glu Arg Ser Met Leu Gly Ser Arg Asp Ser Glu
            740                 745                 750
Val Ala Ala Val Val Arg Asp Thr Asp Met Ile Trp Ser Ser Met Asn
        755                 760                 765
Gly Arg Pro Tyr Leu Val Gly Arg Phe Pro His Thr Leu Arg Met Arg
    770                 775                 780
Leu Met Arg Glu His Leu Gly Ile Asp Val Asp Glu Leu Met Glu His
785                 790                 795                 800
Ser Ile Ala Thr Glu Glu Glu Leu Arg Lys Ile Gln Ile Ala Glu Glu
                805                 810                 815
Gly Ser Arg Ser Pro Glu Asn Ala Asp Lys Ala Asp Ser Glu Ser Leu
            820                 825                 830
Met Met Glu Arg Gln Asp Glu Arg Asp Met Ile Glu Arg Arg His Arg
        835                 840                 845
Ile Gln Asp Glu Phe Leu Ser Arg Ser Glu Asp Leu His Ser Phe Asn
    850                 855                 860
His Asp Val Asp Trp Glu Gln Gly Asn Asn Pro Asn Leu Lys Ala Asn
865                 870                 875                 880
Arg Lys Leu Thr Ala Asp Pro Arg Val Thr Ser Asn Ala Glu His Lys
                885                 890                 895
Lys Asp Val Asp Gly His Gly Val Asp His Leu Asp Ile Ala Leu Glu
            900                 905                 910
Ala Gly Leu Ala Asp Gly Arg Asp Ser Gln Met Leu Glu Asp Ser Val
        915                 920                 925
Glu Val Leu Val Ser Pro Ile Ala Ser Glu Gly Lys Gly Thr Ile Arg
    930                 935                 940
Gln Pro Lys Leu Ala Ser Gln Arg Asn Thr Gln Pro Gly Ser Pro Ile
945                 950                 955                 960
Ala Arg Glu Ser Ser Arg Glu Ser Pro Ser Thr Thr Val His Asp Ala
                965                 970                 975
Asp Pro Thr Pro Val Leu Asp Gly Leu Pro Ala Ala Arg His Pro Ala
            980                 985                 990
Leu Pro Gly Thr Asn Thr Glu Asn Asp Asn Gly Leu Leu Ser Pro Ser
```

995 1000 1005
Ser Asp Ile Thr Asp Ala Ala Lys Tyr Pro His Pro Leu Ile Pro Asp
1010 1015 1020
Leu Lys His Ile Phe Ile Asp Lys Asp Cys Met Arg Asp Pro Val Ile
1025 1030 1035 1040
Asp Ile Phe Tyr Leu Asp Thr Trp Gln Ala Val Ala Glu Lys Asn Thr
1045 1050 1055
Lys Ile Tyr Arg Ala Val Phe Arg Cys Met Pro Asp Ser Glu Val Lys
1060 1065 1070
Ser Trp Lys Glu Tyr Lys Glu Tyr Ala Thr Tyr Gly Glu Arg Phe Ser
1075 1080 1085
Glu Met Gln Ser Gln His Ser Ala Lys Ile Ser His Pro Ser Pro Pro
1090 1095 1100
Lys Thr Asn Gly Ser Ser Arg Gly Gln Ile Gln Arg Ser Trp Arg Arg
1105 1110 1115 1120
Tyr Ala Val Thr Leu Leu Leu Thr Arg Ile Glu Arg Arg Ser Pro Arg
1125 1130 1135
Asp Gly Thr Gln Gly Val Thr Xaa Ala Pro Thr Arg Arg Glu Arg Leu
1140 1145 1150
Ala Lys Val Asp Ala Met Xaa Xaa Ile Glu Cys Xaa Pro Ile Leu Pro
1155 1160 1165
Lys Gln Lys His Tyr Arg Gln Leu Thr Arg Gly Leu Pro Leu Lys
1170 1175 1180

<210> 36875
<211> 293
<212> PRT
<213> A.fumigatus

<400> 36875
Ser Ala Phe Pro Ser Ser Leu Val Val Lys Thr Arg Arg Trp Leu Arg
1 5 10 15
Asp Arg Pro Gly Pro Pro Leu Ala Ser Ser Lys Gly Ala Ala Arg Asn
20 25 30
Ser Arg Trp Arg Ile Trp Leu Arg Leu Ile Gly Phe Ala Trp Lys Ser
35 40 45
Leu Trp Lys Thr Ala Lys Val Ala Val Lys Leu Arg Glu Val Ile Ile
50 55 60
Phe Leu Ile Ala Trp Phe Leu Leu Ser Asp Ala Met Ala Thr Val Ser
65 70 75 80
Gly Thr Ala Ile Leu Phe Ala Arg Thr Glu Leu Lys Met Ser Thr Thr
85 90 95
Ala Val Gly Leu Leu Ser Ile Thr Ala Thr Leu Ser Gly Met Ala Gly
100 105 110
Ala Phe Leu Trp Pro Val Val Ser Arg Arg Leu Arg Leu Lys Ser Asn
115 120 125
His Thr Ile Met Leu Cys Ile Ala Leu Phe Glu Val Ile Pro Leu Tyr
130 135 140
Gly Met Leu Ala Tyr Ile Pro Leu Phe Lys Lys Trp Gly Val Val Gly
145 150 155 160
Leu Gln Gln Pro Trp Glu Ile Phe Pro Leu Gly Ile Val His Gly Leu
165 170 175
Val Ser Gly Gly Leu Ser Ser Tyr Cys Arg Ser Phe Phe Gly Leu Leu
180 185 190
Ile Pro Pro Gly Ser Glu Ala Ala Phe Tyr Ala Leu Tyr Ala Ala Thr
195 200 205

```
Asp Lys Gly Ser Ser Phe Ile Gly Pro Ala Ile Val Gly Met Leu Ile
    210                 215                 220
Asp Ala Thr Gly Gln Val Arg Ser Gly Phe Phe Phe Ile Ala Val Leu
225                 230                 235                 240
Ile Leu Leu Pro Ile Pro Leu Ile Trp Met Val Asn Ala Glu Lys Gly
                245                 250                 255
Arg Gln Asp Gly Leu Ala Met Ala Asp Ile Leu Glu Lys Ser His Arg
            260                 265                 270
Glu His Ala Ser Glu Tyr Gly Gly Pro Ser Glu Glu Ala Glu Gly Leu
        275                 280                 285
Leu Ala Arg Asp Ile
    290
```

<210> 36876
<211> 87
<212> PRT
<213> A.fumigatus

<400> 36876

```
Ile Asn Ala Lys Gly Ile Ala Ile Gly Leu His Ala Leu Ser Leu Gln
1               5                   10                  15
Glu Ile Ile Ser Leu Lys Pro Ala Val Tyr Tyr Leu Ser Trp Arg Leu
            20                  25                  30
Arg Arg Leu Gly Leu Gln Ala Arg Ile Pro Ala Tyr Ser Ser Gln Leu
        35                  40                  45
Leu Arg Gly Asp Phe Arg Val Pro Asp Tyr Arg Arg His Glu Leu Ser
    50                  55                  60
Leu Ser Asp His Tyr Glu Ala Val Tyr Gly Val Pro Glu Met Thr Gln
65                  70                  75                  80
Thr Ser Gly Leu Ser Pro Ile
                85
```

<210> 36877
<211> 598
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36877

```
Leu Phe Xaa Arg Leu His Gly Asp Pro Leu Phe His Thr Phe Ala Glu
1               5                   10                  15
Glu Leu Leu Ser His Val Thr Arg Pro Phe Tyr Asp Met Leu Arg Leu
            20                  25                  30
Trp Ile Tyr Asp Gly Glu Leu Ser Asp Pro Tyr Gln Glu Phe Phe Val
        35                  40                  45
Val Glu Pro Glu Phe Arg Pro Asn Thr Asp Pro Arg Arg Leu Ala Thr
    50                  55                  60
Ser Val Trp Glu Asp Lys Tyr Lys Leu Asp Asp Glu Met Val Pro Ser
65                  70                  75                  80
Ile Ile Thr Gln Asp Phe Ala Lys Lys Val Phe Leu Ile Gly Lys Ser
                85                  90                  95
Leu Asn Phe Ile Arg Tyr Gly Cys Gly Asp Ser Gly Trp Val Glu Ala
```

```
            100                 105                 110
Tyr Ser Lys Lys Ala Ser Lys Glu Leu His Tyr Gly Asp Thr Ala Ser
        115                 120                 125
Leu Glu Ala Ser Ile Asp Glu Ala Tyr Lys Thr Thr Met Ala Arg Leu
    130                 135                 140
Ile His Leu Met Ala Glu Lys Phe Lys Leu Phe Asp His Leu His Ala
145                 150                 155                 160
Leu Lys Lys Tyr Leu Leu Leu Gly Gln Gly Asp Phe Ile Ala Leu Leu
                165                 170                 175
Met Glu Ser Leu Ala Ser Asn Leu Asp Arg Pro Ala Asn Ser Gln Tyr
            180                 185                 190
Arg His Thr Leu Thr Ala Gln Leu Glu His Ala Ile Arg Ala Ser Asn
        195                 200                 205
Ala Gln Tyr Asp Pro Pro Asp Val Leu Arg Arg Leu Asp Ala Arg Met
    210                 215                 220
Leu Glu Leu Ser His Gly Glu Ile Gly Trp Asp Cys Phe Thr Leu Glu
225                 230                 235                 240
Tyr Lys Ile Asp Ala Pro Val Asp Val Val Ile Thr Pro Trp Gly Ser
                245                 250                 255
Thr Gln Tyr Leu Lys Val Phe Asn Phe Leu Trp Arg Val Lys Arg Val
            260                 265                 270
Glu Phe Ala Leu Gly Ser Thr Trp Arg Arg Cys Met Thr Gly Ala Arg
        275                 280                 285
Gly Val Leu Gly Ser Val Ser Asp Lys Val Gly Ala Asp Trp Lys Arg
    290                 295                 300
Ala Arg Cys Val Ile Ala Glu Met Ile His Phe Val Cys Gln Leu Gln
305                 310                 315                 320
Tyr Tyr Ile Leu Phe Glu Val Ile Glu Ala Ser Trp Asp Gln Leu Gln
                325                 330                 335
Ala Glu Ile Ser Lys Pro Gly Cys Thr Leu Asp Asp Leu Ile Glu Ala
            340                 345                 350
His Thr Lys Tyr Leu Asn Ser Ile Thr His Lys Gly Leu Leu Gly Ser
        355                 360                 365
Thr Ser Ser Ser Arg Thr Ala Ser Gly His Lys Gln Glu Glu Gly Phe
    370                 375                 380
Leu Thr Gln Leu His Gln Ile Leu Lys Ile Met Leu Ala Tyr Lys Asp
385                 390                 395                 400
Ala Val Asp Gly Leu Tyr Ser Phe Ser Val Ala Glu Phe Thr Arg Arg
                405                 410                 415
Gln Glu Leu Ser Ala Lys Ile Glu Thr Arg Thr Ala Gln Gly Arg Trp
            420                 425                 430
Gly Ile Thr Glu Arg Asp Leu Leu Pro Ser Arg Arg Pro Gln Gly His
        435                 440                 445
Lys Asn Ser Ile Ser Ser Phe Pro Pro Ser Met Ala Gln Thr Pro Thr
    450                 455                 460
Val Gly Val Asp Gly Asp Gly Phe Asp Thr Pro Gly Ser Leu Ala Gly
465                 470                 475                 480
Gln Glu Leu Ser Ala Asp Asp His Met Leu Ala Ser Leu Arg Thr Arg
                485                 490                 495
Leu Arg Glu Leu Ser Ala Glu Phe Arg Ser Arg Leu Asn Val Leu Leu
            500                 505                 510
Gly Asp Leu Ala Tyr Gln Pro Tyr Val Asp Met Arg Phe Leu Gly Val
        515                 520                 525
Val Met Asn Phe Asn Asp Val Tyr Glu Pro Val Arg Arg Arg Arg Thr
    530                 535                 540
Ala Thr Ala Ser Thr Lys Asp Lys Glu Arg Ala Arg Arg Lys Ala Ala
```

545 550 555 560
Ala Ser Thr Ala Pro Gly Gly Ser Gly Glu Ala Gly Ser Gln Lys Glu
565 570 575
Ala Arg Arg Glu Arg Lys Asp Thr Ser Gly Ala Glu His Ser Gly Asn
580 585 590
Gly Ser Gly Thr Gly Pro
595

<210> 36878
<211> 373
<212> PRT
<213> A.fumigatus

<400> 36878
Phe Thr Leu Leu Ala Ser Phe Ala Val Ser Leu Ile Lys Arg Ala Ile
1 5 10 15
Tyr Ser Ile Leu Gln Ser His Leu Thr Ser Pro Arg Thr Pro Leu Thr
20 25 30
Leu Pro Met Ser Ser Glu Glu Ser Ala Gln Pro Ser His Val Ser Ala
35 40 45
Ser Lys Lys Ala Gly Arg Lys Leu Lys His Ala Lys Asp Thr Ser Ala
50 55 60
Leu Glu Asp Ser Glu Asp Lys Glu Val Val Gln Lys His Lys Lys Ser
65 70 75 80
Lys Asp Lys Lys Lys Lys Asn Lys Ser Ser Asn Gly Gln Val Thr Glu
85 90 95
Asp Ala Ala Val Thr Ala Asp Pro Ser Glu Lys Lys Gln Lys Gln Lys
100 105 110
Glu Lys Lys Ser Lys Lys Arg Arg Leu Glu Glu Glu Ser Asp Arg Gly
115 120 125
Glu Lys Gly Val Ala Glu Pro Gly Ser Glu Ser Gln Gln Arg Arg Lys
130 135 140
Lys Lys Arg Val Ser Phe Ser Ala Asp Thr Val Met Arg Asp Ala Glu
145 150 155 160
Glu Ser Glu Ser Glu Ser Arg Pro Asp Val Lys Asp Asp Leu Lys Ser
165 170 175
Asn Gly Asp Ala Glu Glu Gly Gln Ala Pro Pro Val Thr Glu Glu Gln
180 185 190
Val Asp Ala Asp Asp Glu Gly Glu Lys Lys Lys Lys Lys Glu Lys Lys
195 200 205
Lys Lys Lys Lys Lys Asp Arg Ser Gly Thr Ala Ala Ser Asp Thr Ala
210 215 220
Pro Lys Ser His Glu Ser Pro Ile Leu Ser Tyr Leu Asn Leu Tyr His
225 230 235 240
Gln Asn Arg Ser Ala Trp Lys Phe Gln Lys Asn Arg Glu Thr His Leu
245 250 255
Phe Lys His Ile Leu Ser Leu Glu His Val Pro Glu Ser Tyr Asn Ala
260 265 270
Ala Leu Leu Ser Tyr Leu Lys Gly Leu Lys Ser Glu Gly Ala Arg Gln
275 280 285
Arg Leu Arg Gln Val Ala Glu Glu Val Val Lys Thr Glu Met Glu Glu
290 295 300
Asp Leu Ala Lys Glu Gln Glu Ala Glu Thr Glu Gly Lys Val Glu Ser
305 310 315 320
Asp Thr Thr Gly Tyr Asn Lys Ala Val Glu Ala Phe Arg Thr Arg Leu
325 330 335

```
Ser Gln Gly Lys Asp Asp Phe Glu Glu Ile Glu Thr Pro Asp Ser Leu
            340                 345                 350
Asp Gly Glu Gln Leu Ala Gln Leu Gln Arg Arg Leu Asn Arg Arg Ser
        355                 360                 365
Thr Thr Thr Tyr Glu
    370
```

<210> 36879
<211> 62
<212> PRT
<213> A.fumigatus

<400> 36879

```
Arg Lys Leu Thr Ala Val Arg Ile Tyr Arg Ile Val Val Leu Ala Met
1               5                  10                  15
Pro Leu Leu Met Ser Leu Leu Glu Ala Val Val Gln Leu Val Lys Thr
            20                  25                  30
Asp Pro Lys Arg Arg Ile Tyr Gln Thr Ser Met Asp Ile Met Ile Leu
        35                  40                  45
Trp Leu Arg Ser Leu Glu Gly Ile Asp Gln Trp Ser His Ala
    50                  55                  60
```

<210> 36880
<211> 810
<212> PRT
<213> A.fumigatus

<400> 36880

```
Cys Thr His Cys Ser Phe Ser Lys Gly Glu Gly Arg Gln Arg Leu Gln
1               5                  10                  15
Pro Val Leu Gln Phe Asn Arg Met Ala Gln Gln Pro Ser Arg His Thr
            20                  25                  30
Val Glu Trp Ile Lys Gln Gln Gln Ala Glu Ala Gly Val Asp Val Arg
        35                  40                  45
Lys Ala Leu Lys Leu Arg Lys Lys Leu Pro Leu Trp Leu Asp Asp Ser
    50                  55                  60
Pro Phe Asp Arg Val Pro Glu Arg Val Pro Leu Pro Glu Ser Arg Asp
65                  70                  75                  80
Gly Ser Ser Thr Ser Ser Asp Pro Gly Asp Arg Asp Gly Asn Ala Ala
                85                  90                  95
Lys Ser Ser Leu Glu Ala Ile Asp Arg Asp Asp Thr Phe Ile Gln Pro
            100                 105                 110
Trp Leu Ile Pro Leu Pro Pro Ser Leu Pro Pro Ser Pro Arg Gln Gln
        115                 120                 125
Leu Ala Gln Trp Leu Ala Ala Lys Glu Ser Lys Arg Glu Thr Pro Leu
    130                 135                 140
Pro Arg Gln Pro Tyr Arg Leu Val Leu Asp Arg Ala Glu Ser Val Phe
145                 150                 155                 160
Asp His Ile Lys Arg Gly Asn Ile Arg Lys Asn Pro Arg Leu Gln Arg
                165                 170                 175
Thr Ser Ile Thr Leu Tyr Glu Tyr Tyr Asp Asp Ser Thr Ala Thr Arg
            180                 185                 190
Val Glu Ile Asp Thr Ala Gln Glu Ile Pro Arg Phe Cys Gly Met Arg
        195                 200                 205
Glu Gly Leu Lys Gly Arg Val Phe Leu Val Glu Asp Leu Ser Thr Lys
    210                 215                 220
```

```
Thr Ile Asn Thr Leu Gly Glu Thr Phe Gly Ile Thr Pro Glu Phe Ser
225                 230                 235                 240
Glu Glu His Leu Leu Asn Ser Gly Tyr Gly Gly Ala Lys Tyr Asp Asp
                245                 250                 255
Pro Pro Ala Arg Ser Trp Lys Thr Ala Arg Leu Asn Lys Pro Tyr Val
            260                 265                 270
Ser Leu Gln Trp Phe Arg Pro Val Tyr Arg Arg Pro Pro Leu Phe Ser
        275                 280                 285
Asn Arg Asp Arg Glu Lys Leu Leu Asp Leu Gln Gly Asn Gly Leu Glu
    290                 295                 300
Tyr Ile Ser Gly Asn Ser Ser Ile Ser Leu Lys Ala Ala Thr Asn Ile
305                 310                 315                 320
Phe Arg Ala Glu Trp Asp Leu Arg Val Asp Pro Arg Arg Thr Ala Lys
                325                 330                 335
Glu Met Gly Glu Phe Gly Leu Val Glu Arg Ala Ser Ile Trp Lys Lys
            340                 345                 350
Gln Asp Glu Asn Met Glu Tyr Glu Thr Gly Lys Leu Leu Arg Ser Leu
        355                 360                 365
Gly Asn His Trp Glu Thr Asp Trp Met Ala Val Ile Val Leu Leu Asp
    370                 375                 380
Pro Leu Pro Thr Ile Ser Ile Ser His Asp Leu Thr Leu Arg Ile Thr
385                 390                 395                 400
Lys Glu Thr Ile Ala Glu Ser Gly Gly Ser Asp Asn Arg Val Thr Gly
                405                 410                 415
Asn Ser Asn Gly Met Glu Asn Arg Ile Leu Ile Ile Glu Gly Asp Asn
            420                 425                 430
Thr Ser Glu Gly Phe Ala Ile Pro Ile Glu Asn Pro Arg Arg Glu Glu
        435                 440                 445
Thr Ser Arg Pro Val Leu Asp Trp Leu Leu Arg Arg Arg Arg Pro Glu
    450                 455                 460
Val Asp Arg Arg Lys Val His Val Arg Thr Ser Phe Gln Val Leu Val
465                 470                 475                 480
Lys Gln Met Ala Pro Arg Lys Pro Ile Thr Ile Asp Leu Glu Glu Ala
                485                 490                 495
Leu Leu Thr Gly Gly Asn Ser Leu Ser Lys Leu Gln Glu Glu Leu Asn
            500                 505                 510
Glu Thr Arg Ser Thr Arg Gln Ala Met His Asp Ile Ala Gly Asp Asn
        515                 520                 525
Thr Ala Pro Ile His Val Leu Gln Ile Leu Phe Gln Thr Ile His Gln
    530                 535                 540
Asp Thr Ser Thr Leu Leu Gly Val Leu Asn Gln Ile Leu Ser Asp Ile
545                 550                 555                 560
Glu Val Asp Ile Leu Asp Asp Thr Lys Met Glu Asp Arg Leu Ala Ser
                565                 570                 575
Trp Arg Gln Leu Ile Ser Lys Ala Glu Gly Glu Leu Leu Glu Leu Lys
            580                 585                 590
Thr Ser Thr Lys Ser Phe Val Ala Phe Leu Gly Phe Lys Phe Pro Ala
        595                 600                 605
Glu Thr Ser Ala Ala Thr Ser Asp Asp Lys Pro Gly Ile Ile Arg Asp
    610                 615                 620
Val Val Asp Leu Phe Gln Glu Ile Asp Gln Met Leu Thr Lys Leu Arg
625                 630                 635                 640
His Ala Ser Thr Ser Leu Thr Ser Asn Met Gly Leu Leu Asp Ser Arg
                645                 650                 655
Arg Ser Ile Asp Glu Ala His Ala Val Thr Arg Leu Thr Glu Leu Ala
            660                 665                 670
```

```
Phe Leu Phe Ile Pro Leu Ser Phe Ser Ser Ser Ile Phe Gly Met Glu
        675                 680                 685
Ile Glu Pro Phe Lys Asp Pro Val Pro Leu Trp Asn Phe Phe Val Val
    690                 695                 700
Ala Ile Ser Val Thr Ala Phe Ala Tyr Leu Met Arg Leu Thr Met Arg
705                 710                 715                 720
Ser Gln Trp Leu Gly Asn Leu Lys Gln Ser Val Lys Gln Asp Val Arg
                725                 730                 735
Arg Tyr Ala Glu Gln Asn Gly Met Pro Val Gln Val Arg Ser Leu Ser
            740                 745                 750
Met Leu Leu Leu Leu Gln Trp Phe Gly Ser Ile Leu Glu Arg Ser Ser
        755                 760                 765
Lys Ala Thr Trp Ser Trp Ile Gly Arg Lys Gly Arg Met Ala Gly Ile
    770                 775                 780
Gly Leu Trp Arg Val Val Gly Phe Pro Val Thr Val Phe Thr Thr Gly
785                 790                 795                 800
Leu Glu Gly Ala Val Arg Arg Ala Val Gln
                805                 810
```

<210> 36881
<211> 412
<212> PRT
<213> A.fumigatus

```
<400> 36881
Pro Ser Leu Ser Ser Thr Leu Gln Ser Phe Phe His Leu Thr Asp Leu
1                   5                   10                  15
His Ile Gln Asp Glu Val Tyr Met His Val Ser Lys Ile Thr Glu Arg
            20                  25                  30
Asp Leu Val Leu Leu Arg Gln Tyr Cys Ile Tyr Gly Pro Lys Leu Ile
        35                  40                  45
Ser Leu Thr Ala Arg Tyr Ser Thr Ala Arg Pro Leu Gly Ala Thr Gln
    50                  55                  60
Glu Ala Ala Met Phe Lys Lys Ala Val Lys Asp His Ser Ala Gly Pro
65                  70                  75                  80
Val Lys Pro Leu Gln Ser Asn Leu Phe Arg Ser Asn Gly Ile Val Gln
                85                  90                  95
Pro Lys Pro Thr Pro Pro Leu Gln Ser Ile Gly Val Lys Arg Lys Ile
            100                 105                 110
Glu Met Ser Ser Ala Gly Asp Ser Ala Leu Gly Thr Leu His Ser Ala
        115                 120                 125
Val Tyr Phe Asp Glu Asn Asp Phe Asp Asp Asp Val Asp Leu Asp Ser
    130                 135                 140
Glu Gly Pro Glu Pro Phe Ile Pro Pro Thr Lys Ile Val Arg Pro Ser
145                 150                 155                 160
Ile Ala Asp Gln Ser Thr Val Thr Ser Asn Ala Asn Ser Thr Gly Asn
                165                 170                 175
Asn Val Ser Gln Ser Ala Glu Arg Val Thr Val Asp Leu Ile Ser Ser
            180                 185                 190
Asp Ile Lys Tyr Pro Glu Leu Pro Pro Val Ser Asn Asp His Val Pro
        195                 200                 205
Pro Ser Ser Ser Val Gln Ile Pro Trp Ser Ser Ser Pro Pro His His
    210                 215                 220
Leu Gln Gln Pro Asn Ser Ser Arg Thr Leu Pro Trp Leu Thr Lys Asn
225                 230                 235                 240
Asp Glu Leu Ser Lys Val Glu Gly Tyr Lys Lys Pro Glu Thr Pro Thr
```

```
                245                 250                 255
Arg Pro Lys Ser Thr Ala Ile Trp Asn Lys Ser Ala Ser Ala Ile Lys
            260                 265                 270
Glu Glu Gln Lys Glu Leu Arg Arg Gln His Lys Lys Asn Gln Lys Gly
        275                 280                 285
Asp Thr Asn Phe Lys Gln Leu Gln Thr Arg Pro Lys Ile Ala Ser Leu
    290                 295                 300
Phe Leu Ser Asp Glu Gln Arg His Val Leu Asp Ala Val Val Asn Gln
305                 310                 315                 320
Gly Lys Ser Ile Phe Phe Thr Gly Ser Ala Gly Thr Gly Lys Ser Val
                325                 330                 335
Leu Met Arg Glu Ile Ile Lys Gln Leu Arg Ser Lys Tyr Arg Lys Glu
            340                 345                 350
Pro Asp Arg Val Ala Val Thr Ala Ser Thr Gly Leu Ala Ala Cys Asn
        355                 360                 365
Ile Glu Gly Val Thr Leu His Ser Phe Ala Gly Ile Gly Leu Gly Lys
    370                 375                 380
Glu Pro Val Pro Glu Leu Val Lys Lys Val Arg Gln Phe Ser Ala Ser
385                 390                 395                 400
Ala Leu Phe Ile Phe Val Asp Gly Gln Ile Thr Asp
                405                 410
```

<210> 36882
<211> 64
<212> PRT
<213> A.fumigatus

<400> 36882

```
Ser Cys Pro Met Tyr Val Lys Ala Asp Ser Cys Arg Ile Leu Phe Phe
1               5                   10                  15
Asn Gly Ala Val Thr Leu Lys Asn Ile Tyr Ser Ile Gln Gln Arg Gln
            20                  25                  30
Thr Thr Ser Met Lys Gly Lys Arg Val Trp Ala Phe Gly Glu Arg His
        35                  40                  45
Phe Arg Ser Gly Lys Leu Arg Leu Thr Met Met Pro Tyr Gln Cys Gly
    50                  55                  60
```

<210> 36883
<211> 213
<212> PRT
<213> A.fumigatus

<400> 36883

```
Glu Lys Ser Ser Asn Ser Tyr Gly Val Asn Ile Glu Arg Ser Arg Ile
1               5                   10                  15
Val Trp Gln Ser Gln Leu Leu Leu Val Leu Leu Pro Val Thr Ser Arg
            20                  25                  30
Val Ser Leu Cys Thr Val Leu Gln Glu Leu Gly Trp Val Lys Ser Leu
        35                  40                  45
Phe Gln Ser Trp Ser Arg Lys Leu Asp Asn Ser Leu Pro Leu Leu Cys
    50                  55                  60
Ser Tyr Ser Leu Thr Val Lys Leu Gln Ile Lys Arg Asn Gln Lys Ala
65                  70                  75                  80
Arg Asn Arg Trp Leu Arg Thr Lys Val Leu Ile Ile Asp Glu Val Ser
                85                  90                  95
Met Val Asp Gly Asp Leu Phe Asp Lys Leu Glu Glu Ile Ala Arg Arg
```

```
            100                 105                 110
Ile Arg Asn Asn Gly Arg Pro Phe Gly Gly Ile Gln Leu Val Val Thr
        115                 120                 125
Gly Asp Phe Phe Gln Leu Pro Pro Val Pro Glu Gly Ser Ser Arg Glu
    130                 135                 140
Ala Lys Phe Ala Phe Ala Ala Ala Thr Trp Asn Thr Ser Ile Gln His
145                 150                 155                 160
Thr Ile Leu Leu Thr His Val Phe Arg Gln Lys Asp Pro Glu Phe Ala
                165                 170                 175
Glu Met Leu Asn Glu Met Arg Leu Gly Lys Leu Thr Pro Arg Thr Ile
            180                 185                 190
Glu Thr Phe Lys Ser Leu Ser Arg Pro Leu Asn Phe His Asp Ala Leu
        195                 200                 205
Glu Ala Thr Glu Leu
    210
```

<210> 36884
<211> 283
<212> PRT
<213> A.fumigatus

<400> 36884

```
His Leu Ile Leu Arg Phe Pro Thr Arg Gln Glu Val Glu Gln Ala Asn
1               5                   10                  15
Ser Ala Arg Met Ser Arg Leu Ser Gly Glu Thr Met Thr Phe His Ala
            20                  25                  30
Val Asp Ser Gly Thr Ile Gln Asp Val Gln Phe Arg Glu Lys Leu Leu
        35                  40                  45
Ala Asn Cys Met Ala Pro Pro Val Ile His Leu Lys Lys Gly Ala Gln
    50                  55                  60
Val Met Leu Ile Lys Asn Met Glu Asp Ser Leu Val Asn Gly Ser Ile
65                  70                  75                  80
Gly Arg Val Val Ala Phe Met Asp Glu Ala Thr Phe Glu Tyr Tyr Arg
                85                  90                  95
Asp Asn Glu Ser Glu Phe Ala Asp Gly Arg Asp Ala Gly Ser Asp Asp
            100                 105                 110
Glu Arg Leu Asn His Ala Arg Lys Lys Leu Lys Gly Leu Gly Asn Lys
        115                 120                 125
Asp Gly Gly Val Val Ala Ser Arg Lys Trp Pro Leu Val Cys Phe Val
    130                 135                 140
Gln Pro Asp Gly Thr Glu Arg His Leu Leu Cys Gln Pro Glu Ala Trp
145                 150                 155                 160
Lys Ile Glu Leu Pro Asn Gly Glu Val Gln Ala Gln Arg Gln Gln Val
                165                 170                 175
Pro Leu Ile Leu Ala Trp Ala Leu Ser Ile His Lys Ala Gln Gly Gln
            180                 185                 190
Thr Leu Gln Arg Val Lys Val Asp Leu Gly Arg Val Phe Glu Lys Gly
        195                 200                 205
Gln Ala Tyr Val Ala Leu Ser Arg Ala Thr Ser Lys Ala Gly Leu Gln
    210                 215                 220
Val Thr Arg Phe Asp Pro Arg Lys Val Met Val His Pro Lys Val Thr
225                 230                 235                 240
Glu Phe Tyr Ser Asn Leu Val Ser Ile Thr Asp Ala Leu Ala Pro Lys
                245                 250                 255
Ser Ser Lys Pro Arg Glu His Gln Glu Val Asp Glu Asp Gly Gln Leu
            260                 265                 270
```

Glu Asp Glu Glu Leu Leu Gln His Leu Tyr Gly
275 280

<210> 36885
<211> 543
<212> PRT
<213> A.fumigatus

<400> 36885
Gln Ile Asn Gly Gly Val Val Gly Ile Asp Asn Ser Asn Gln Gln Val
1 5 10 15
Asn Phe Lys Asn Ile His Phe Asn Gly Cys Thr Thr Ala Phe Arg Ala
20 25 30
Ser Gly Gly His Thr Ala Leu Leu Gln Gly Ala Thr Phe Glu Asn Cys
35 40 45
Gly Val Gly Ile Asp Met Thr Ser Asn Gly Leu Gly Ser Leu Val Leu
50 55 60
Leu Asp Ser Thr Ser Val Asn Ser Gly Thr Thr Ile Lys Phe His Asp
65 70 75 80
Ser Ser Asn Asp Gly Gly Asn Arg Asn Ser Gln Ile Leu Ile Glu Asn
85 90 95
Leu Thr His Asp Asn Gly Asn Pro Ile Ala Glu Asp Ser Lys Gly Asn
100 105 110
Val Lys Leu Ala Asn Thr Ser His Val Asp Thr Trp Val Trp Gly Asn
115 120 125
Val Thr Pro Gly Gln Tyr Glu Thr Gly Thr Ser Phe Asn Thr Asn Arg
130 135 140
Pro Asn Val Leu Leu Ser Gly Gly Lys Phe Phe Met Lys Ala Gln Pro
145 150 155 160
Thr Tyr Ala Glu Tyr Ala Ser Asp Gln Ile Val Asn Val Lys Ala Val
165 170 175
Ala Gly His Thr Val Lys Gly Asp Gly Tyr Thr Asp Asp Ser Ala Ser
180 185 190
Leu Asn Ala Ile Leu Ala Asp Asn Ala Ala Ser Cys Lys Ile Ser Tyr
195 200 205
Phe Pro Tyr Gly Val Tyr Ile Val Lys Asp Thr Leu Ile Ile Pro Pro
210 215 220
Gly Ser Arg Ile Val Gly Glu Ala Trp Ser Val Ile Ser Gly Ala Gly
225 230 235 240
Asn Ala Phe Lys Gly Ala Arg Asn Pro Lys Ala Val Val Arg Val Gly
245 250 255
Asn Pro Gly Asp Val Gly Val Ala Glu Ile Gln Asp Met Arg Phe Ser
260 265 270
Val Ser Glu Val Leu Pro Gly Ala Lys Ile Leu Glu Val Asn Met Ala
275 280 285
Gly Ser Ala Pro Gly Asp Val Gly Leu Trp Asn Thr Ile Val Thr Val
290 295 300
Gly Gly Thr Ala Glu Thr Ser Ile Ser Thr Gly Cys Thr Asn Gln Asp
305 310 315 320
Thr Ser Gln Cys Met Ala Ala Tyr Met Val Met His Leu Thr Lys Ser
325 330 335
Ser Ser Ala Tyr Ile Glu Asn Phe Trp Gly Trp Thr Ala Asp His Asn
340 345 350
Leu Asp Gly Gly Ser Gly Tyr Thr Val Ile Ser Thr Gly Arg Gly Val
355 360 365
Leu Val Glu Ser Thr Lys Gly Thr Trp Leu Thr Gly Thr Gly Ser Glu

```
    370                 375                 380
His His Trp Leu Tyr Asn Tyr Asn Phe His Asn Ala Glu Asn Val Tyr
385                 390                 395                 400
Ala Gly Leu Leu Gln Thr Glu Ser Pro Tyr Met Gln Ser Ser Gly Ala
                405                 410                 415
Thr Gln Thr Ala Pro Ala Pro Trp Thr Ala Asp Ser Ser Val Gly Asp
            420                 425                 430
Pro Asp Phe Ser Trp Cys Ala Gly Gly Asp Gln Lys Cys Arg Thr Ala
        435                 440                 445
Leu Ala Thr Asn Val Asp Gly Gly Lys Asp Val Leu Leu Tyr Asn Ser
    450                 455                 460
Ala Ala Trp Ala Phe Phe Asp Gly Glu Trp Tyr Gly Asp Tyr Gly Thr
465                 470                 475                 480
Gln Cys Ser Gly Asn Cys Gln Ser Asn Met Met Arg Val Ser Asn Asn
                485                 490                 495
Pro Glu Asn Leu Val Trp Tyr Ser Ile Asn Thr Arg Lys Thr Asn Val
            500                 505                 510
Met Val Leu Asp Gly Gln Ser Asn Pro Thr Glu Tyr Tyr His Pro Gly
        515                 520                 525
Gly Trp Glu Ala Ile Ile Gln Ala Tyr Arg Gln Phe Ser Ser His
    530                 535                 540

<210> 36886
<211> 324
<212> PRT
<213> A.fumigatus

<400> 36886
Ile Ser Phe Leu Ile Tyr Leu Ser Arg Arg Thr Leu Ala His His Leu
1               5                   10                  15
Ala Ser Met Arg Gly Leu Leu Leu Leu Thr Thr Leu Ala Ser Thr Leu
            20                  25                  30
Thr Ser Thr Leu Ala Thr Ala Ser Ser Ala Ala Val Gly Ala Arg Ala
        35                  40                  45
Pro Ser Cys Ser Gly Pro Val Lys Ser Ser Pro Ser Thr Tyr Trp Leu
    50                  55                  60
Val Glu Gln Asp His Ile Gly Asn Pro Arg Gly Tyr Ala Pro His Ala
65                  70                  75                  80
Gly Gly Asn Tyr Asn Tyr Pro Val Trp Arg Asn Val Leu Asp Tyr Gly
                85                  90                  95
Ala Lys Asn Asp Gly Ser Gly Asp Gln Thr Ala Ser Leu Gln Lys Ala
            100                 105                 110
Ile Asn Asp Asn Gly Ser Gly Gly Ser Arg Glu Asn Ser Gly Val Thr
        115                 120                 125
Arg Tyr Pro Ala Gln Val Tyr Leu Pro Ser Gly Thr Tyr Gln Leu Gly
    130                 135                 140
Ser Ala Leu Asn Leu Arg Val Gly Thr Leu Ile Val Gly Asp Pro Ile
145                 150                 155                 160
Asn Pro Pro Val Ile Lys Ala Val Ala Gly Phe Asn Gly Asn Thr Leu
                165                 170                 175
Val Asn Gly Tyr Asp Ser Lys Asn Gly Pro Pro Glu Thr Ser Phe Met
            180                 185                 190
Thr Leu Met Lys Asn Val Val Leu Asp Thr Thr Ala Leu Arg Pro Asp
        195                 200                 205
Thr Arg Ile Thr Ala Leu Gln Trp Gly Val Ala Gln Gly Ala Gly Leu
    210                 215                 220
```

```
Thr Asn Val Gln Ile Asn Met Pro Asn Tyr Ser Thr Gly His Thr Gly
225                 230                 235                 240
Ile His Val Gln Ala Gly Ser Thr Ile Ala Ile Thr Asp Val Val Gly
                245                 250                 255
Leu Ser Leu Val Cys Ala Val Trp Ser Ser Ala Asp Lys Tyr Ser Lys
            260                 265                 270
Ser Met Glu Val Ser Leu Val Ser Thr Thr Pro Thr Ser Arg Ser Thr
        275                 280                 285
Ser Arg Thr Ser Thr Ser Met Ala Ala Gln Leu Pro Ser Glu Arg Arg
    290                 295                 300
Gly Ala Thr Leu Leu Cys Phe Lys Ala Pro His Ser Arg Thr Ala Glu
305                 310                 315                 320
Trp Ala Leu Thr
```

<210> 36887
<211> 431
<212> PRT
<213> A.fumigatus

```
<400> 36887
Thr Arg Ile Asp Ile Leu Arg Val Val Glu Ile Val Ile Val Gln Pro
1               5                   10                  15
Val Val Leu Arg Ala Ser Ala Arg Gln Pro Cys Pro Phe Gly Arg Phe
            20                  25                  30
Asp Lys Asp Ser Ala Thr Gly Arg Asp Asp Ser Val Pro Arg Pro Ala
        35                  40                  45
Val Gln Val Val Val Cys Cys Pro Ala Pro Lys Val Leu Asp Ile Arg
    50                  55                  60
Arg Arg Thr Leu Gly Gln Met His His His Val Arg Cys His Ala Leu
65                  70                  75                  80
Gly Gly Val Leu Val Arg Ala Pro Gly Arg Asp Ala Arg Leu Gly Gly
                85                  90                  95
Ala Ala Asp Arg Asp Asn Arg Val Pro Gln Ala His Val Ala Arg Ser
            100                 105                 110
Ala Pro Gly His Ile Asp Phe Glu Asp Leu Gly Ser Arg Glu Asp Leu
        115                 120                 125
Arg His Ala Glu Pro His Val Leu Asp Phe Gly Asn Ala His Val Ala
    130                 135                 140
Trp Val Ala Asn Pro Asp Asn Ser Leu Arg Ile Ala Gly Thr Leu Glu
145                 150                 155                 160
Gly Val Ala Arg Ala Gly Asn His Arg Pro Arg Leu Ser His Asp Pro
                165                 170                 175
Arg Ala Arg Arg Asn Asp Gln Arg Val Leu Asp Asp Val His Thr Val
            180                 185                 190
Trp Glu Val Ala Asp Leu Thr Ala Gly Arg Val Ile Gly Gln Asn Gly
        195                 200                 205
Val Glu Arg Ser Arg Val Val Ser Val Ala Val Pro Phe Asp Gly Val
    210                 215                 220
Ala Cys Asp Gly Leu Asp Ile Asp Asp Leu Val Thr Ser Val Leu Gly
225                 230                 235                 240
Ile Cys Arg Leu Arg Phe His Glu Glu Leu Ala Ser Arg Gln Gln His
                245                 250                 255
Val Gly Thr Val Gly Val Glu Ala Ser Ser Cys Phe Val Leu Ala Trp
            260                 265                 270
Gly Asp Ile Pro Pro Asp Pro Arg Val Asn Met Arg Ser Val Gly Gln
```

```
        275                 280                 285
Phe Asp Val Ala Leu Ala Val Phe Gly Asp Gly Val Ala Ile Val Val
    290                 295                 300
Ser Gln Ile Leu Asp Gln Asp Leu Ala Val Ala Val Pro Thr Ile Ile
305                 310                 315                 320
Gly Arg Val Val Lys Leu Asp Arg Ser Pro Arg Val Asp Arg Gly Arg
                325                 330                 335
Val Lys Gln His Gln Ala Ser Gln Ser Val Ala Gly His Val Asn Ala
            340                 345                 350
His Ser Ala Val Leu Glu Cys Gly Ala Leu Lys Gln Ser Ser Val Ala
        355                 360                 365
Pro Arg Arg Ser Glu Gly Ser Cys Ala Ala Ile Glu Val Asp Val Leu
    370                 375                 380
Glu Val Asp Leu Leu Val Gly Val Val Asp Thr Asn Asp Thr Ser Ile
385                 390                 395                 400
Asp Leu Leu Tyr Leu Ser Ala Asp Asp His Thr Ala Gln Thr Arg Glu
                405                 410                 415
Arg Pro Thr Thr Ser Val Ile Ala Ile Val Asp Pro Ala Trp Thr
            420                 425                 430
```

<210> 36888
<211> 65
<212> PRT
<213> A.fumigatus

<400> 36888

```
Arg His Leu Asp Ser Leu Tyr Pro Gly His Cys Leu Gly Thr Leu Asp
1               5                   10                  15
Gly Val Met Glu Tyr Ser Pro Ser Gly His Ala Gly Asn Ser Gln Leu
            20                  25                  30
Thr Asn Gln Ser His Ser Ala Gly Ala His Leu Arg His Ile Tyr Phe
        35                  40                  45
Gly Gln Ser Glu Asp Lys Leu Leu His Leu Asn Gln Asn Ala Ser Pro
    50                  55                  60
Arg
65
```

<210> 36889
<211> 123
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (117)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36889

```
His Ile Gly Leu Leu Asp Gln Ile Gly Ser Ala Val Glu Gly Phe Ile
1               5                   10                  15
Trp Pro Lys Ser Leu Trp Asp Phe Thr Thr Arg Asn Leu Asn Gly Ala
            20                  25                  30
Val Lys Ser Thr Pro Ile Leu Gln Ile Leu Asn Leu Ile Met Gly Leu
        35                  40                  45
Leu Gly Ile Ala Trp Glu Trp Pro Leu Asn Leu Leu Ala Gly Thr Leu
    50                  55                  60
```

```
Pro His Arg Ser Ile Glu Val Arg Leu Ile Met Tyr Pro Leu Ser Ala
65                  70                  75                  80
Leu Leu Ala Ala Leu Leu Tyr Gln Trp Lys Ile Pro Ala Thr Tyr Tyr
                85                  90                  95
Leu Ile Gly Ile Ala Val Asn Phe Trp Ala Leu Pro Glu Cys Gln Val
            100                 105                 110
Lys Leu Val Phe Xaa Ser Pro Leu Ser Leu Ile
        115                 120
```

<210> 36890
<211> 213
<212> PRT
<213> A.fumigatus

<400> 36890

```
Thr Met Ser Pro Pro Leu Val Pro Leu Ala Glu Ile Pro Thr Val Ser
1               5                   10                  15
Leu Leu Tyr Lys Leu Gly Arg Leu Val Pro Tyr Ser Val Pro Phe Ala
            20                  25                  30
Lys Pro Ser Asn Ser Phe Asn Asn Ile Ile Ser Leu Ile Arg Asn Asp
        35                  40                  45
Ile Thr Lys Leu Glu Asn Val Asp Cys Ile Val Asn Ala Ala Asn Glu
    50                  55                  60
Ser Leu Leu Gly Gly Gly Gly Val Asp Gly Ala Ile His Arg Ala Ala
65                  70                  75                  80
Gly Pro Asp Leu Leu Arg Glu Cys Arg Thr Leu Lys Gly Cys Arg Thr
                85                  90                  95
Gly Asp Ala Lys Ile Thr Ser Ala Tyr Glu Leu Pro Cys Lys Lys Val
            100                 105                 110
Ile His Thr Val Gly Pro Ile Tyr His Phe Glu Leu Arg Lys Gly Asp
        115                 120                 125
Asp Arg Pro Glu Met Leu Leu Arg Ser Cys Tyr Arg Arg Ser Leu Glu
    130                 135                 140
Leu Ala Val Glu Asn Asn Met Lys Ser Ile Ala Phe Ala Ala Ile Ser
145                 150                 155                 160
Thr Gly Val Tyr Gly Tyr Pro Ser Ser Glu Ala Ala Phe Ala Ala Leu
                165                 170                 175
Asp Glu Val Arg Lys Phe Leu Glu Arg Pro Gly Asn Ile Glu Lys Leu
            180                 185                 190
Glu Arg Ile Ile Phe Cys Asn Phe Glu Arg Lys Asp Glu Val Ala Tyr
        195                 200                 205
Glu Gln Ala Ile Pro
    210
```

<210> 36891
<211> 242
<212> PRT
<213> A.fumigatus

<400> 36891

```
Arg Ser Gln Leu Thr Ser Thr Pro Thr Thr Asn Met Pro Pro Pro Gln
1               5                   10                  15
Pro Ser Pro Glu Gly Pro Leu Thr Gly Lys Thr Thr Ser Arg Phe Arg
            20                  25                  30
Val Leu Ala Pro Glu Ile Ala Lys Ile Arg Ser Ser Lys Ser Pro Val
        35                  40                  45
```

```
Pro Pro Thr Thr Glu Pro Ser Ala Ser Ala Ser Ala Ser Ala Asn Ala
    50                  55                  60
Ser Pro Ser Leu Pro Gln Thr Gln Thr Pro Thr Pro Pro Gln Ser Ser
65                  70                  75                  80
Pro Arg Pro Lys Arg Pro Ser Leu Ser Ser Leu Phe Arg Gln Arg Tyr
                85                  90                  95
Ala Thr Leu Pro Thr Pro Ile Arg Arg Thr Phe Arg Val Leu Arg Ile
            100                 105                 110
Leu Ala Pro Ile Val Pro Ile Gly Ile Phe Phe Ser Glu His Val Leu
        115                 120                 125
Gln Val Met Trp Val Arg Gly Pro Ser Met Thr Pro Phe Leu Asn Lys
    130                 135                 140
Asp Tyr Glu Thr Met His Thr Lys Ser Asp Met Val Leu Val Asn Met
145                 150                 155                 160
Trp Pro Phe Gly Gly Ala Gly Trp Pro Trp Glu Arg Lys Arg Arg Leu
                165                 170                 175
Glu Arg Gly Met Ile Val Thr Phe Arg Trp Val Val Arg Phe Pro Leu
            180                 185                 190
Tyr Ser Val Ser Asp Ser Ala Ser Pro Asp Met Glu Leu Glu Tyr Ala
        195                 200                 205
Asp Gly Met Val Val Leu Gly Arg Leu Leu Ile Leu Asn Thr Pro Pro
    210                 215                 220
Ser Ser Gly Leu Ser Val Ser Pro Val Ile Gly Leu Arg Leu Val Asn
225                 230                 235                 240
Arg Ala
```

<210> 36892
<211> 129
<212> PRT
<213> A.fumigatus

```
<400> 36892
Arg Tyr Gly Cys Ala Arg Ser Pro Ala Asn Pro Lys His Thr Ala Ile
1               5                   10                  15
Lys Arg Ile Ile Gly Leu Pro Gly Asp Arg Ile Thr Thr Arg Glu Pro
            20                  25                  30
Cys Met Lys Ala Ser Gln Ile Val Pro Phe Asn His Val Trp Leu Glu
        35                  40                  45
Gly Asp Ala Glu Asp Pro Lys Lys Ser Leu Asp Ser Asn Thr Tyr Gly
    50                  55                  60
Pro Val Ser Ile Ser Leu Ile Thr Gly Arg Val Ile Ala Val Leu Arg
65                  70                  75                  80
Pro Gln Phe Arg Trp Leu Asn Trp Gln Asp Trp Glu Lys Gly Val Val
                85                  90                  95
Glu Gly Asp Glu Asp His Arg Phe Gly Glu Asn Tyr Arg Gln Asp Val
            100                 105                 110
Arg Gln Arg Val Leu Lys Glu Ala Val Lys Leu Glu Arg Pro Gln Ile
        115                 120                 125
Glu
```

<210> 36893
<211> 265
<212> PRT
<213> A.fumigatus

<400> 36893
Ser Glu Lys Cys Glu Arg Gly Leu Ala Ala Tyr Ser Gly Gln Val Ala
1 5 10 15
Thr Gly Val Leu Leu Arg Tyr Gln Gly Leu Phe Val Asp Thr Ser Leu
20 25 30
Ala Leu Leu Asp Ser Thr Asp Gly Asn Ser Thr Cys Leu Gly Arg Ser
35 40 45
Arg Arg Asn Ile Leu Lys Tyr Asn Arg Ala Ser Pro Ser Ser Met Val
50 55 60
Thr Cys Ala Leu Arg Pro Ala Gly Ile Tyr Gly Glu Lys Asp Thr Thr
65 70 75 80
Phe Thr Phe Lys Val Leu Glu His Ala Ala Lys Ala Ser Pro Thr Val
85 90 95
Leu Arg Met Gln Leu Gly Asp Asn Asn Asn Leu Phe Asp Phe Thr Tyr
100 105 110
Val Gly Asn Val Ala Tyr Ser His Leu Leu Ala Ala Tyr Arg Leu Leu
115 120 125
Ala Thr Gln Thr Arg Tyr Glu Ser Gly Gln Ser Gly Pro Leu Asp His
130 135 140
Glu Lys Val Asp Gly Glu Ala Phe Asn Ile Thr Asn Asp Ser Pro Val
145 150 155 160
Tyr Phe Trp Asp Ile Thr Arg Ala Ala Trp Ala Leu Ala Gly Lys Val
165 170 175
Val Glu Pro Asn Gln Val Trp Gln Leu Ser Glu Asp Leu Leu Gly Pro
180 185 190
Val Gly Ala Val Leu Glu Thr Val Phe Gly Leu Ile Gly Lys Thr Pro
195 200 205
Arg Leu Thr Arg Arg Ile Val Arg Tyr Ser Cys Met Thr Arg Tyr Tyr
210 215 220
Ser Cys Glu Lys Ala Lys Tyr Arg Leu Gly Tyr Ser Pro Ile Val Ser
225 230 235 240
Val Pro Glu Gly Leu Ser Arg Ala Val Gly Tyr Val Leu Ala Arg Glu
245 250 255
Arg Leu Glu Ser Glu Lys Lys Gly Leu
260 265

<210> 36894
<211> 143
<212> PRT
<213> A.fumigatus

<400> 36894
Ala Asp Leu Phe Ser Cys Leu Leu Cys Leu Ser Arg Pro Val Ile Lys
1 5 10 15
Met Arg Phe Pro Ile Pro Leu Val Ser Phe Leu Gly Leu Phe Thr Arg
20 25 30
Leu Gln Ser Trp Ile Asp Gly Phe Ser Asp Leu Trp Glu Ser Thr Leu
35 40 45
Ile Asn Asp Glu Thr Phe Asp Tyr Val Val Val Gly Gly Gly Thr Ala
50 55 60
Gly Val Thr Leu Ala Val Arg Leu Ala Glu Gln Lys Leu Arg Val Ala
65 70 75 80
Leu Val Glu Ala Gly Lys Thr Tyr Glu Leu Arg Phe Pro Ile Ala Ala
85 90 95
Ile Pro Gly Ala Ala Ser Ile Gly Val Gly Ser Asp Ile Glu Ser Gly

```
            100                 105                 110
Thr Pro Ile Asp Trp Lys Phe Val Ala Arg Asn Val Thr Gly Ala Asn
        115                 120                 125
His Arg Asp Ile His Tyr Pro Arg Gly Lys Cys Leu Gly Gly Ser
    130                 135                 140
```

<210> 36895
<211> 215
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (24)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36895

```
Leu Pro Leu Met Pro Gln Lys Arg Pro Thr Leu Glu Leu Gly Ser Val
1               5                   10                  15
Leu Val Val Gly Gly Cys Gly Xaa Leu Gly Trp His Ile Val Asp Gln
            20                  25                  30
Leu Leu Asn Phe Pro Ser Glu Thr Asp Ala Ser Val Ala Leu Pro Lys
        35                  40                  45
Pro Glu Gly Asp Ser Arg Phe Asp Asn Pro Arg Leu Ala Asp Arg Tyr
    50                  55                  60
Pro Arg Cys Val Ala Lys Val Ser Val Leu Asp Leu Arg Thr Ala Asn
65                  70                  75                  80
Asn Arg Leu Pro Gly Ala Gln Tyr Tyr Asp Gly Asp Ile Thr Ser Glu
                85                  90                  95
Glu Ser Leu Leu Ala Ile Phe Arg Lys Val Lys Pro Asp Val Val Ile
            100                 105                 110
His Thr Ala Thr Ala Asn Val Leu Glu Gly Asn Lys Glu Leu Leu Arg
        115                 120                 125
Lys Val Asn Val Asp Gly Thr Lys Thr Leu Leu Glu Val Ala Gly Gly
    130                 135                 140
Asp Arg Gly Asp Trp Gly Gly Lys Cys Lys Ala Phe Val Tyr Thr Ser
145                 150                 155                 160
Ser Ala Ser Val Leu His Asp Thr Gln Ser Asp Leu Lys Asn Val Asn
                165                 170                 175
Glu Asp Trp Pro Leu Ile Arg Gly Lys Leu Gln Leu Glu Tyr Tyr Ser
            180                 185                 190
Asp Thr Lys Val Cys Leu Ser Thr Leu Leu Trp Pro Cys Trp Ile Pro
        195                 200                 205
Leu Thr Glu Thr Gln Pro Ala
    210                 215
```

<210> 36896
<211> 183
<212> PRT
<213> A.fumigatus

<400> 36896

```
Pro Thr Arg Arg Phe Pro Leu Arg Ser Thr Lys Ala Lys Lys Arg Met
1               5                   10                  15
Leu Ala Ser Tyr Thr Ile Tyr Cys Gln Leu Ser Ser Pro Val Arg Leu
            20                  25                  30
```

```
Gln His Thr Asn Leu Leu Arg Thr Thr Thr Asp Ser Leu Ile Asn Trp
        35                  40                  45
Ala Arg Gln Gly Ser Leu Trp Pro Leu Ser Phe Gly Leu Ala Cys Cys
    50                  55                  60
Gly Val Glu Met Met Ala Ala Ser Met Pro Arg Tyr Asp Gln Asp Arg
65                  70                  75                  80
Gln Gly Ile Ile Phe Arg Ala Ser Pro Arg Gln Ala Asp Val Met Leu
                85                  90                  95
Val Ala Gly Thr Val Thr Asn Lys Met Ala Pro Ala Leu Arg Gln Leu
            100                 105                 110
Tyr Asp Gln Met Pro Asp Pro Lys Trp Val Ile Ser Met Gly Ser Cys
        115                 120                 125
Ala Asn Gly Gly Gly Tyr Tyr His His Ser Tyr Ser Val Val Arg Gly
    130                 135                 140
Val Asp Arg Leu Val Pro Val Asp Ile Tyr Val Pro Gly Cys Pro Pro
145                 150                 155                 160
Thr Pro Glu Ala Leu Leu Tyr Gly Ile Leu Phe Phe Thr Thr Gly Ala
                165                 170                 175
Gly Ala Ile Arg Ala Cys Asn
            180
```

<210> 36897
<211> 427
<212> PRT
<213> A.fumigatus

```
<400> 36897
Thr Thr Ala Trp Ile Thr Gln Cys Val Lys Gln Arg Gln Thr Leu Asn
1               5                   10                  15
Pro Phe Leu Pro Ile Gly His Lys Ala Phe Pro Pro Arg Arg Glu Trp
            20                  25                  30
Leu Pro Lys Asn Gln Ser Pro Pro Met Met Leu Asn Glu Ser Arg Pro
        35                  40                  45
Gln Leu Gln Gln Gly Gly Leu Leu Ser Gln Arg Arg His Ala Arg Ala
    50                  55                  60
Leu Glu Pro Leu Trp Ser Val Leu Ile Ala Leu Gln Pro Ala Val Leu
65                  70                  75                  80
Glu Glu Arg Asn Gly Glu Ile Glu Phe Arg Val Val Ile Asn Asn Asp
                85                  90                  95
Gly Ser Arg Asp Ser Thr Ile Ile Leu Thr Gly Leu Lys Cys Leu Phe
            100                 105                 110
Gln Lys Gln Leu Pro Lys Met Pro Lys Asp Tyr Ile Ala Arg Leu Val
        115                 120                 125
Tyr Asp Arg Thr His Leu Ser Ile Ala Ile Val Lys Met Pro Leu Glu
    130                 135                 140
Val Ile Glu Gly Ile Thr Phe Arg Glu Phe Arg Asp Arg Lys Phe Val
145                 150                 155                 160
Glu Ile Val Phe Cys Ala Val Ser Ser Asp Gln Gln Val Lys Gly Tyr
                165                 170                 175
Gly Ala His Leu Met Ala His Leu Lys Asp Tyr Val Arg Ala Thr Ser
            180                 185                 190
Pro Val Met His Phe Leu Thr Tyr Ala Asn Asn Tyr Ala Thr Gly Tyr
        195                 200                 205
Phe Gln Lys Gln Gly Phe Thr Lys Glu Ile Thr Leu Asp Lys Ser Val
    210                 215                 220
Cys Val Gly Tyr Ile Lys Asp Tyr Glu Gly Gly Thr Leu Met Gln Cys
```

```
225                 230                 235                 240
Ser Met Ile Pro Arg Ile Arg Tyr Leu Glu Val Gly Arg Met Leu Leu
                245                 250                 255
Lys Gln Lys Ala Thr Val Gln Ala Lys Met Arg Leu Leu Ser Ser Asn
            260                 265                 270
His Ile Ile His Pro Pro Pro Pro Gln Trp Ala Lys Gly Val Val Thr
        275                 280                 285
Pro Ile Asp Pro Leu Ser Ile Pro Ala Ile Arg Ala Thr Gly Trp Ser
    290                 295                 300
Pro Asp Met Asp Ala Leu Ser Arg Glu Pro Arg His Glu Pro Tyr Phe
305                 310                 315                 320
Asn Glu Phe Arg Arg Phe Leu Asn Gln Ile Gln Asn His Lys Gln Gly
                325                 330                 335
Trp Pro Phe Leu Gln Pro Leu Asn Lys Asp Glu Val Pro Asp Tyr Tyr
            340                 345                 350
Asn Val Ile Thr Ser Pro Met His Leu Ser Thr Ile Glu Glu Lys Leu
        355                 360                 365
Glu Arg Asp Asp Tyr Ala Thr Pro Lys Glu Leu Val His Asp Phe Lys
    370                 375                 380
Leu Ile Phe Lys Asn Cys Arg Gln Tyr Asn Asp Ala Thr Thr Val Tyr
385                 390                 395                 400
Ala Lys Cys Ala Val Lys Leu Glu Lys Tyr Met Trp Ser Leu Ser Ser
                405                 410                 415
Pro Arg Gly Trp Lys His Pro Ser Gly Ala Gln
            420                 425
```

<210> 36898
<211> 77
<212> PRT
<213> A.fumigatus

<400> 36898

```
Leu Leu Pro Ser Ile His Ser Leu Phe Leu Pro Phe Gly Gln Leu Ala
1               5                   10                  15
Gly Pro Arg Thr Trp Met His Tyr Arg Glu Asn His Ala Met Asn Leu
            20                  25                  30
Ile Ser Thr Ser Phe Gly Asp Phe Ser Ile Lys Ser Lys Thr Thr Asn
        35                  40                  45
Lys Asp Gly Leu Ser Cys Asn His Ser Thr Lys Met Arg Phe Pro Ile
    50                  55                  60
Ile Thr Met Ser Leu His His Gln Cys Thr Cys Arg Leu
65                  70                  75
```

<210> 36899
<211> 354
<212> PRT
<213> A.fumigatus

<400> 36899

```
Pro Arg Cys Ser Leu Pro Ile Gly Gly Val Ser Leu Ala Val Ile Leu
1               5                   10                  15
Phe Val Leu Arg Leu Pro Asp Lys Asn Asp Phe Ser Gly Ser Pro Ile
            20                  25                  30
Leu Glu Arg Ile Gln Gln Leu Asp Leu Ile Gly Ala Gly Leu Leu Ile
        35                  40                  45
Pro Ala Ile Ile Cys Leu Leu Leu Ala Leu Gln Trp Gly Gly Asn Lys
```

```
    50                  55                  60
Tyr Pro Trp Asn Asn Ser Arg Ile Ile Gly Leu Phe Val Gly Phe Gly
65                  70                  75                  80
Val Met Ala Ile Leu Phe Ala Phe Ser Gln Val Lys Leu Ala Asp Lys
                85                  90                  95
Ala Thr Leu Pro Pro Arg Met Phe Lys Asn Arg Ser Val Leu Ala Ala
            100                 105                 110
Thr Leu Phe Ala Leu Phe Phe Gly Gly Ala Phe Phe Val Leu Val Tyr
        115                 120                 125
Tyr Leu Pro Ile Phe Phe Gln Ser Val Lys Asp Ser Ser Ala Met Lys
    130                 135                 140
Ser Gly Ile Gln Leu Leu Pro Leu Met Leu Ala Thr Val Val Ser Ser
145                 150                 155                 160
Met Val Met Gly Gly Ala Val Thr Ala Ala Gly Tyr Tyr Thr Pro Phe
                165                 170                 175
Leu Ile Gly Ser Thr Ala Ile Ala Ala Ile Gly Ala Gly Leu Val Thr
            180                 185                 190
Met Tyr Glu Ile Asp Ile Ser Thr Gly Lys Trp Ile Gly Tyr Gln Ile
        195                 200                 205
Val Leu Gly Ala Gly Val Gly Ala Gly Phe Gln Ile Pro Met Thr Ala
    210                 215                 220
Val Gln Thr Val Leu Pro Ala Glu Asp Ile Pro Ile Gly Thr Ala Ala
225                 230                 235                 240
Val Met Phe Phe Gln Thr Leu Gly Gly Ala Leu Phe Ile Ala Val Ala
                245                 250                 255
Gln Ser Val Phe Gln Asn Gly Leu Ile Ser Gly Leu Ala Lys Tyr Ala
            260                 265                 270
Pro Thr Val Asp Pro Thr Ala Ile Val Lys Ala Gly Ala Thr Glu Met
        275                 280                 285
Arg Thr Val Leu Thr Gln Leu Gly Gln Leu Asp Gln Leu Met Asn Val
    290                 295                 300
Ile Lys Ala Tyr Met Asp Gly Leu Arg Ala Ser Tyr Arg Val Ser Leu
305                 310                 315                 320
Ala Leu Val Leu Val Ala Phe Leu Ala Ser Leu Leu Met Glu Trp Lys
                325                 330                 335
Ser Val Lys Lys Ala Asn Asn Gly Glu Lys Lys Glu Val Met Val Ala
            340                 345                 350
Ala Ile
```

<210> 36900
<211> 170
<212> PRT
<213> A.fumigatus

<400> 36900

```
Ser Thr Ala Asp Met Ile Pro Arg Ile Leu Arg Leu Ile Val Leu Ala
1               5                   10                  15
Ile Trp Ser Ala Glu Ala Val Ala Ser Pro Val Arg Ser Ser Asp Gln
            20                  25                  30
Asp His Ser Asn Val Asn His Gly Lys Ile Leu Thr His Glu Pro Glu
        35                  40                  45
Tyr Asp Pro Leu Trp Glu Lys Tyr Gly Leu Asn Lys Ser Gln Glu Phe
    50                  55                  60
Lys Tyr Phe His Glu Pro Gly Asn Asp Asp Ile Leu Gly His Tyr Asp
65                  70                  75                  80
```

```
Thr Arg Phe Phe Thr Glu Pro Val Pro Asp Lys Glu Arg Ser Glu Thr
                85                  90                  95
Met Thr His Met Ile Arg Ala Tyr Leu Asn Phe Phe Asn Glu Arg Gly
            100                 105                 110
Leu Glu Thr Trp Ile Ala His Gly Thr Leu Leu Gly Trp Trp Trp Asn
        115                 120                 125
Gly Lys Val Leu Phe Ala Pro Arg Ser Leu Gly Thr Val Ala Asn Ala
    130                 135                 140
Gly Asp Gly Gly Val Gly Ser Thr Leu Gly Leu Gly His Arg His Thr
145                 150                 155                 160
Ser Ala Gly Tyr His Pro Ala Ala Pro Gly
                165                 170
```

<210> 36901
<211> 93
<212> PRT
<213> A.fumigatus

<400> 36901

```
Phe Ser Pro Ser Glu Cys Asn Thr Pro Pro Ala Phe Ile Ser Ser Thr
1               5                   10                  15
Ala Asp Ser Leu Leu Ser Leu Tyr His Ser Leu Pro Cys His Pro Tyr
            20                  25                  30
His Gln Leu Ala Tyr Ser Ser Phe Lys Trp Ile Ile Ser Leu Gly Ala
        35                  40                  45
Pro Pro Phe Trp Glu Asn Gly Gly Glu Leu Ser Asp Gln Pro Leu Gly
    50                  55                  60
Thr Asp Leu Asp His Cys Ala Ile Ala Met Leu Pro Thr Phe Tyr Ser
65                  70                  75                  80
Asn Tyr Leu Phe Ser Asp Leu Thr Ser Ser Ser Pro Ser
                85                  90
```

<210> 36902
<211> 150
<212> PRT
<213> A.fumigatus

<400> 36902

```
Val Leu Pro Trp Asp Trp Asp Ile Asp Thr Gln Val Leu Asp Thr Thr
1               5                   10                  15
Leu Leu Arg Leu Ala Asp Gln Phe Asn Gln Thr Val Val His Tyr Thr
            20                  25                  30
Ala Ala Asp Ser Ser Val Glu Arg Ser Tyr Leu Leu Asp Val Asn Pro
        35                  40                  45
Trp Ala Arg Gln Arg Glu Arg Gly Gln Gly Leu Asn Ile Ile Asp Ala
    50                  55                  60
Arg Trp Ile Asp Arg Arg Thr Gly Leu Tyr Ile Asp Ile Thr Gly Leu
65                  70                  75                  80
Ser Arg Leu Glu Pro Glu Lys Pro Ser Leu Trp Gln Asp Lys Asn Asp
                85                  90                  95
His Lys Tyr Gln Thr Gly Asp Ile Tyr Pro Leu Arg Lys Thr Thr Phe
            100                 105                 110
Glu Gly Val Pro Ala Lys Ile Pro Phe Asp Tyr Asp Ser Val Leu Ile
        115                 120                 125
Lys Glu Tyr Thr Gln Glu Ala Leu Thr Ser Thr Lys Phe His Lys Tyr
    130                 135                 140
```

```
Val Ser Ser Gly Ile Phe
145                 150

<210> 36903
<211> 105
<212> PRT
<213> A.fumigatus

<400> 36903
Ala Leu Ser Ser Leu Pro Glu Lys Lys Ile Leu Thr Ala Leu Gln Ser
1               5                   10                  15
Ser His Arg Arg Ser Leu Ala Arg Arg His Pro Val Cys Pro Pro Thr
            20                  25                  30
Pro Arg Gln Glu Arg Leu Leu Arg Gln Ser His Pro Arg Thr Asp Pro
        35                  40                  45
Ala Ala Gly Pro His Arg Arg Arg Ser Thr Asp Pro Arg His His Leu
    50                  55                  60
Pro Leu Ala Arg Leu Ala Val Gly Arg Lys Gln Val Pro Leu Glu Gln
65                  70                  75                  80
Phe Ala Asp His Arg Pro Val Arg Arg Leu Arg Arg His Gly Tyr Pro
                85                  90                  95
Leu Cys Ile Leu Ala Gly Gln Val Gly
            100                 105

<210> 36904
<211> 288
<212> PRT
<213> A.fumigatus

<400> 36904
Ser Ile Trp Thr Gln Ser Gly Arg Glu Gln Gly Phe Glu Trp Val Leu
1               5                   10                  15
Thr Leu Ser Asp Gly Trp Arg Arg Gln Arg Ser Met Ile Gln Ser Ala
            20                  25                  30
Ile Asn Ile Thr Ser Ile Asn Lys Tyr Gln Ser Leu Met Asp Asp Glu
        35                  40                  45
Ala Thr Phe Thr Val Asn Ala Leu Leu Gln Ser Pro Asp Ser Phe His
    50                  55                  60
Gly Glu Phe Leu Arg Tyr Ser Tyr Ser Val Leu Thr Ser Ser Leu Leu
65                  70                  75                  80
Gly Phe Ser Val Arg Ser Pro Ser Asp Pro Phe Ile His His Asn Glu
                85                  90                  95
Thr Phe Thr Ala Glu Leu Met Asn Ser Phe Arg Pro Asp Cys Phe Pro
            100                 105                 110
Ser Asn Val Phe Pro Val Leu Arg Lys Leu Pro Met Trp Leu Leu Pro
        115                 120                 125
Ser Leu Arg Thr Met Glu Arg Leu Arg Lys Glu Tyr Val Gly Glu Met
    130                 135                 140
Trp Ala Phe Arg Arg Lys Ile Glu Lys Leu Val Lys Glu Gly Ser Ala
145                 150                 155                 160
Thr Glu Cys Ile Tyr Lys His Phe Leu Leu His Arg Asp Gln Tyr Ser
                165                 170                 175
Val Thr Glu Glu Glu Ser Val His Thr Phe Gln Ala Met Ile Asp Gly
            180                 185                 190
Gly Thr Arg Ser Pro His Asn Asn Leu Leu Thr Phe Leu Phe Leu Met
        195                 200                 205
```

```
Met Glu Phe Pro Glu Trp Gln Lys Lys Leu Gln Glu Glu Val Asp Arg
    210                 215                 220
Val Val Gly Arg Asp Arg Met Pro Ser Tyr Arg Asp Ile Pro Asn Leu
225                 230                 235                 240
Pro Thr Val Arg Ala Ile Val Lys Glu Thr Val Arg Tyr Arg Ser Ile
                245                 250                 255
Val Ala Glu Met Gly Ile Gly His Cys Leu Gln Thr Asp Asp Ile Tyr
            260                 265                 270
Lys Gly Tyr Phe Phe Glu Lys Gly Thr Val Phe Asn Ala Ile Phe Ala
        275                 280                 285
```

<210> 36905
<211> 60
<212> PRT
<213> A.fumigatus

<400> 36905

```
Pro Val Ser Val Thr Lys Ser Lys Asp Thr Pro Asp Val Gln Ser His
1               5                   10                  15
Val Ile Ala Ala Asp Ala Thr Gly Leu Arg Asp Tyr Gly Met Trp Phe
            20                  25                  30
Gly Lys Asp Val Pro Glu Ser Leu Glu Ala Tyr Ala Ser Val Asn Met
        35                  40                  45
Cys Pro Thr Trp Pro Leu Arg Leu Glu Gln Asn Val
    50                  55                  60
```

<210> 36906
<211> 64
<212> PRT
<213> A.fumigatus

<400> 36906

```
Lys Ile Ala Phe Arg Thr Lys Phe Arg His Phe Lys Tyr Leu Ile Ile
1               5                   10                  15
Leu Phe Arg Leu Thr Asn Thr Leu Ala Leu Phe Lys Arg Phe Ile Lys
            20                  25                  30
Glu Val Leu Tyr Lys Val Leu Tyr Tyr Phe Ile Val Val Tyr Leu Asn
        35                  40                  45
Asn Ile Leu Ile Phe Leu Glu Asn Ile Lys Glu Val Leu Gln Glu Leu
    50                  55                  60
```

<210> 36907
<211> 88
<212> PRT
<213> A.fumigatus

<400> 36907

```
Phe Leu Ser Tyr Arg Ile Pro Asn Thr Thr Leu Tyr Cys Pro Ile Ser
1               5                   10                  15
Ile Ile Leu Lys Phe Arg Tyr Leu Ile Tyr Pro Asn Ile Thr Ile Arg
            20                  25                  30
Thr Gly Pro Asn Leu Ile Ile Ile Lys Arg Val Pro Lys Phe Ser Leu
        35                  40                  45
Phe Arg Pro Ile Ile Ser Ser Gly Thr Ile Phe Ile Phe Pro Arg Ile
    50                  55                  60
Pro Ser Phe Leu Ile Lys Ala Arg Phe Ile Lys Leu Pro Ile Thr Pro
```

65 70 75 80
Lys Leu Ile Ile Thr Leu Ala Asn
85

<210> 36908
<211> 463
<212> PRT
<213> A.fumigatus

<400> 36908
His Asn Leu Gln Val Thr Asp Phe Leu Ser Glu His Pro Gly Gly Ala
1 5 10 15
Lys Ile Ile Leu Lys Leu Ala Gly Lys Asp Ala Thr Glu Glu Tyr Asp
20 25 30
Pro Ile His Pro Pro Gly Ile Leu Glu Glu Asn Leu Lys Pro Glu Ala
35 40 45
Leu Val Gly Thr Val Asn Pro Asp Thr Leu Pro Lys Ile Gln Ala Glu
50 55 60
Pro Ser Pro Ala Val Ala Glu Glu Ser Gln Gly Gln Val Pro Met Glu
65 70 75 80
Ala Leu Leu Asn Met Asp Asp Ile Glu Gln Val Ala Thr Lys Asn Val
85 90 95
Ser Lys Lys Ala Trp Ala Tyr Tyr Tyr Ser Ala Ser Asp Asp Lys Ile
100 105 110
Thr Lys Arg Phe Asn Thr Glu Val Tyr Arg Ser Ile Ile Leu Arg Pro
115 120 125
Arg Val Phe Ile Asp Cys Thr Lys Cys Asp Leu Asp Thr Ser Phe Leu
130 135 140
Gly His Lys Leu Gly Met Pro Ile Tyr Val Ser Pro Ala Ala Met Ala
145 150 155 160
Arg Leu Gly His Pro Ala Gly Glu Ala Gly Ile Ala Glu Ala Cys Arg
165 170 175
Ser Phe Gly Ala Met Gln Ile Ile Ser Asn Asn Ala Ser Met Thr Pro
180 185 190
Glu Gln Ile Val Lys Asp Ala Ala Pro Asp Gln Val Phe Gly Trp Gln
195 200 205
Ile Tyr Val Gln Ile Asp Arg Lys Lys Ser Glu Ala Met Leu Ala Arg
210 215 220
Ile Asn Lys Leu Lys Ala Ile Lys Phe Ile Val Leu Thr Leu Asp Ala
225 230 235 240
Pro Val Pro Gly Lys Arg Glu Asp Asp Glu Arg Gly Asn Asn Val Ala
245 250 255
Ala Ser Met Pro Val Pro Ser Ala Ala Lys Ala Ala Asp Lys Ala Ala
260 265 270
Asp Gly Thr Pro Ile Val Ser Gln Pro Gly Gly Val Gly Lys Gln Leu
275 280 285
Phe Ala Gly Thr Asp Pro Ser Leu Thr Trp Lys Asp Thr Leu Pro Trp
290 295 300
Leu Ala Lys His Thr Asp Leu Pro Ile Val Leu Lys Gly Leu Gln Thr
305 310 315 320
His Glu Asp Ala Tyr Ile Ala Ser Leu His Thr Pro Gln Val Lys Gly
325 330 335
Ile Ile Leu Ser Asn His Gly Gly Arg Thr Leu Asp Thr Ala Pro Pro
340 345 350
Ala Val His Thr Leu Leu Glu Ile Arg Lys Tyr Cys Pro Glu Val Leu
355 360 365

```
His Lys Pro His Val Trp Val Asn Gly Gly Ile Arg Arg Arg His Thr
    370                 375                 380
Cys Gly Gly Thr Pro Leu Val Trp Gly Cys Gln Gly Cys Asn Glu Ser
385                 390                 395                 400
Asp Gly Leu Ala Leu Trp Gly Leu Gly Thr Arg Trp Arg Ser Ile Val
                405                 410                 415
Val Lys Arg Ser Thr Ala Gln Val Cys Ser Thr Pro Pro Gly Ile Ile
            420                 425                 430
Gln Lys Pro Gly Met Leu Asn Phe Phe Ser Gln Ser Leu Ala Glu Arg
        435                 440                 445
Lys Pro Lys Thr Ser Leu Pro Ala Ala Trp Val Phe His Arg Gly
    450                 455                 460
```

<210> 36909
<211> 165
<212> PRT
<213> A.fumigatus

<400> 36909

```
His Thr Asn Ser Phe Thr Trp Phe Ser His Val His Thr His Arg Leu
1               5                   10                  15
Thr Leu Tyr Tyr Gly Val Val Leu Trp Tyr Asp Ser Asp Val Tyr Gln
            20                  25                  30
Arg Arg Ala Ala Asp Arg Tyr Arg Leu Arg Met His Arg Ala Arg Thr
        35                  40                  45
Val Ala Leu Thr Ser Asp Glu Ile Val Glu Val Arg Ala Ala Gln Arg
    50                  55                  60
Thr Phe Glu Gly Ala Tyr Val Arg Thr Ala Leu Ser Gln Phe Ser Phe
65                  70                  75                  80
Ala Leu Val Val Leu Lys Ile Phe Thr Ser Glu Phe Tyr Ser Thr Gly
                85                  90                  95
Ala Leu Phe Ala Ile Tyr Gly Thr Gly Val Leu Ile Ile Gly Leu Phe
            100                 105                 110
Arg Arg Gln Gln Gly Asn Arg Gln Phe Phe Ser Glu Leu Gly Glu Asp
        115                 120                 125
Gly Val Pro Arg His Lys Phe Lys Thr Ser Gly Asn Ala Val Leu Val
    130                 135                 140
Leu Thr Ala Leu Ser Val Ala Ala Tyr Ala Thr Leu Ile Ala Leu Thr
145                 150                 155                 160
Val Arg Leu Gly Arg
                165
```

<210> 36910
<211> 91
<212> PRT
<213> A.fumigatus

<400> 36910

```
Arg Cys Ala Asn His Asp Ser Cys Asp Cys Val Lys Ile Lys Asn Met
1               5                   10                  15
Asp Lys Gly Gly Glu Met Ala Gln Gln Glu Lys Glu Met Thr Lys Ser
            20                  25                  30
Glu Glu Leu Tyr Pro Thr Gly Tyr Leu Leu Ser Arg Tyr Thr Leu Val
        35                  40                  45
Val Arg Leu Ser Lys Leu Phe Lys Ala Thr Ile Phe Glu Leu Tyr Gly
    50                  55                  60
```

```
Val Pro Ile Gln Ser Phe Gly Gln Glu Ala Asp Val Gly Ala Trp Gly
65                  70                  75                  80
Gln Leu His Gln Ser Arg Arg Val Leu Ser Gly
                85                  90

<210> 36911
<211> 69
<212> PRT
<213> A.fumigatus

<400> 36911
Lys Glu Gln Ser Arg Leu Pro Thr Asn Lys Tyr His Arg Pro Ile Leu
1               5                   10                  15
His Met Leu Gln Phe Ala His Ala Ser Val Leu Gly Phe Phe Ala Leu
            20                  25                  30
Asn Arg His Pro Asp Gln Ile Lys Glu Leu Ser Leu Ser Leu Ile Asp
        35                  40                  45
Leu Pro Ala Leu Val Leu Asp Ala Ser Gly Arg Phe Arg Arg Leu Lys
    50                  55                  60
Lys Leu Gln Phe Phe
65

<210> 36912
<211> 165
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (147),(149),(150),(157),(158),(162)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36912
Phe Leu His Leu Val Met Pro Ser Pro Ala Pro Leu Pro Pro His Phe
1               5                   10                  15
Thr Trp Gly Phe Ala Thr Ala Ala Tyr Gln Ile Glu Gly Ala Val Asp
            20                  25                  30
Glu Asp Gly Arg Gly Lys Ser Ile Trp Asp Thr Phe Cys His Leu Glu
        35                  40                  45
Pro Ser Arg Thr Lys Gly Ala Asn Gly Asp Val Ala Cys Asp His Tyr
    50                  55                  60
His Arg Tyr Glu Glu Asp Phe Asp Leu Leu Ala Arg Tyr Gly Ala Lys
65                  70                  75                  80
Glu Tyr Arg Phe Ser Ile Ser Trp Ser Arg Ile Ile Pro Leu Gly Gly
                85                  90                  95
Arg Glu Asp Pro Val Asn Glu Ala Gly Val Ala Phe Tyr Asn Lys Leu
            100                 105                 110
Ile Asp Ser Leu Leu Ala Arg Gly Ile Thr Pro Trp Val Thr Leu Tyr
        115                 120                 125
His Trp Asp Leu Pro Gln Thr Leu His Asp Lys Tyr Gly Gly Trp Leu
    130                 135                 140
Asn Val Xaa Lys Xaa Xaa Lys Asp Phe Glu Arg Tyr Xaa Xaa Val Cys
145                 150                 155                 160
Tyr Xaa Arg Phe Gly
                165
```

<210> 36913
<211> 245
<212> PRT
<213> A.fumigatus

<400> 36913
Lys Asp Phe Phe Ser Ser Val Pro Asn Leu Lys Arg Ile Phe Leu Cys
1 5 10 15
Phe Ala Thr Ala Val Phe Ser Gln Ser Ser Gly Asn Leu Leu Val Ser
20 25 30
Asn Tyr Leu Thr Gln Ile Leu Lys Asp Thr Gly Leu Lys Thr Glu Phe
35 40 45
Glu Ile Thr Leu Val Asn Gly Met Val Thr Leu Trp Gln Tyr Ile Val
50 55 60
Ala Ile Thr Val Thr Leu Ile Ile Asp Arg Phe Lys Arg Arg Phe Phe
65 70 75 80
Phe Leu Thr Gly Ser Gly Gly Val Leu Val Thr Phe Ile Val Trp Thr
85 90 95
Ile Ala Ala Gln Arg Tyr Leu Glu Thr Gly Ser Leu Ala Ala Gly Arg
100 105 110
Leu Val Leu Ala Cys Ile Phe Val Phe Gln Ala Phe Tyr Thr Leu Ala
115 120 125
Trp Thr Asn Leu Ile Val Thr Tyr Pro Leu Glu Ile Val Thr Tyr Gln
130 135 140
Met Arg Ala Lys Thr Trp Ala Phe Val Leu Leu Thr Ile Gln Val Ser
145 150 155 160
Ser Ile Phe Gly Gly Tyr Val Asn Pro Ile Gly Leu Lys Asn Ile Gly
165 170 175
Trp Lys Phe Tyr Ile Tyr Tyr Cys Val Trp Val Ala Ile Val Phe Ala
180 185 190
Val Val Tyr Phe Phe Phe Val Glu Thr Ala Gly Pro Thr Leu Glu Glu
195 200 205
Leu Thr Tyr Leu Phe Glu Gly Gln Glu Glu Lys Lys Gln Leu Ala Arg
210 215 220
Lys Ile Glu Glu Leu Lys Gln Asp Val His Val Ser Glu His Val Glu
225 230 235 240
Lys Leu Arg Gly Leu
245

<210> 36914
<211> 478
<212> PRT
<213> A.fumigatus

<400> 36914
Glu Thr His Asn Ala Thr Leu Phe Gly Ala Ser Ser Arg Leu Ser Pro
1 5 10 15
Phe Leu Asn Ala Gly His Gly Phe Phe His Arg Lys Val Leu Leu Ala
20 25 30
Pro Lys Pro Leu Leu Arg Met Ser Glu Ser Leu Leu Ala Thr Arg Arg
35 40 45
Val Ala Phe Arg Leu Ser Pro Arg Ser Tyr Arg Gln Leu Val Pro Arg
50 55 60
Ala Arg Gln His Ser Arg Ile Ala Thr Ala Ala Val Glu Pro Ser Thr
65 70 75 80
Thr Ser His Asp Thr Thr Tyr Pro Leu Asn Pro Ser Ser Pro Ser Ser

```
                85                  90                  95
Pro Ser Ala Arg Trp Thr Ala Leu Arg Ser Ala Arg Pro Phe Ser Asp
            100                 105                 110
Phe Leu Thr Asp Gly Phe Asn Arg Gln His Asp Tyr Leu Arg Ile Ser
        115                 120                 125
Val Thr Glu Arg Cys Asn Leu Arg Cys Val Tyr Cys Met Pro Glu Glu
    130                 135                 140
Gly Val Pro Leu Ser Pro Pro Ala His Leu Leu Thr Thr Pro Glu Ile
145                 150                 155                 160
Val Tyr Leu Ser Ser Leu Phe Val Ser Gln Gly Val Thr Lys Ile Arg
                165                 170                 175
Leu Thr Gly Gly Glu Pro Thr Val Arg Lys Asp Ile Val Pro Leu Met
            180                 185                 190
Arg Ser Ile Gly Glu Leu Arg Arg Asn Gly Leu Arg Glu Leu Cys Leu
        195                 200                 205
Thr Thr Asn Gly Ile Ser Leu His Arg Lys Leu Glu Asp Met Val Glu
    210                 215                 220
Ala Gly Leu Thr Gly Val Asn Leu Ser Leu Asp Thr Leu Asp Pro Phe
225                 230                 235                 240
Gln Phe Gln Ile Met Thr Arg Arg Lys Gly Phe Glu Ala Val Met Lys
                245                 250                 255
Ser Ile Glu Arg Ile Leu Glu Leu Asn Arg Ala Gly Ala Gly Ile Thr
            260                 265                 270
Leu Lys Ile Asn Cys Val Val Met Arg Gly Ile Tyr Asp Arg Glu Ile
        275                 280                 285
Leu Pro Phe Val Glu Leu Gly Arg Asp Ser Pro Ile Glu Val Arg Phe
    290                 295                 300
Ile Glu Tyr Met Pro Phe Asp Gly Asn Lys Trp Ser Gln Gly Lys Met
305                 310                 315                 320
Val Ser Tyr Gln Glu Met Leu Ala Met Ile Arg Glu Lys Tyr Pro Ser
                325                 330                 335
Leu Glu Lys Val Val Gly His Lys Asn Asp Thr Ser Lys Thr Tyr Arg
            340                 345                 350
Ile Pro Gly Phe Gln Gly Arg Val Gly Phe Ile Thr Ser Met Thr His
        355                 360                 365
Asn Phe Cys Gly Thr Cys Asn Arg Leu Arg Ile Thr Ser Asp Gly Asn
    370                 375                 380
Leu Lys Val Cys Leu Phe Gly Asn Thr Glu Val Ser Leu Arg Asp Ile
385                 390                 395                 400
Ile Arg Lys Glu Asn Asp Gly Gln Pro Ile Asp Glu Thr Thr Leu Lys
                405                 410                 415
Glu Leu Gln Leu Leu Glu Ser Ala Glu Ala Ala Ala Arg Ile Gln Asp
            420                 425                 430
Gln Gly Gly Glu Val Asn Gln Arg Glu Arg Glu Leu Leu Asp Leu Ile
        435                 440                 445
Gly Met Ala Val Lys Arg Lys Lys Ala Lys His Ala Gly Met Gly Glu
    450                 455                 460
Leu Lys His Met Lys Asn Arg Pro Met Ile Leu Ile Gly Gly
465                 470                 475
```

<210> 36915
<211> 190
<212> PRT
<213> A.fumigatus

<400> 36915

```
Asp Trp Ser Gly Thr Thr Met Leu Ile Glu Gly Leu Asp Ser Glu Tyr
1               5                  10                  15
His Arg Asn Thr Thr Ser Ala Asn Ile Pro Leu His Leu Leu Pro Leu
            20                  25                  30
His Thr Ser Pro Phe Lys Leu Gln Ala Arg His Tyr His Lys Arg Ser
        35                  40                  45
Asn Asn Ser Ala Pro Asp Ser Arg Pro Glu His Lys Pro Glu Pro Ala
    50                  55                  60
Pro Ala Ala Pro Ser Ser Pro Ser Pro Ser Leu Pro Thr Thr Ser Asp
65                  70                  75                  80
Pro Asp Leu Pro His Leu Thr Pro Ser Gln Thr Val His Met Thr Gln
                85                  90                  95
Ile Thr Glu Lys Pro Ile Thr Ala Arg Ser Ala Thr Ala Ser Cys Leu
            100                 105                 110
Val His Phe Ser Asn Ala Arg Pro His Glu Leu Leu Arg Lys Gly Leu
        115                 120                 125
Thr Lys Lys Gly Asp Val Phe Ser Val Ala Arg Ile Ala Gly Ile Met
    130                 135                 140
Ala Ala Lys Lys Thr Pro Asp Leu Ile Pro Leu Cys His Pro Ser Ile
145                 150                 155                 160
Gly Ile Thr Gly Val Glu Val Asp Val Thr Leu Val Asp Pro Ala Pro
                165                 170                 175
Leu Ser Ser Pro Arg Gly Trp Lys Asp Pro Arg Trp Arg Asn
            180                 185                 190
```

<210> 36916
<211> 198
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (158)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36916

```
Ser Met Thr Asn Gly Met Gln Val Leu Gln Ser Trp Gln Asp Arg Phe
1               5                  10                  15
Gly His Pro Thr Gly Ser Lys Leu Gly Phe Phe Gly Ala Ala Asn Ala
            20                  25                  30
Ile Gly Gly Val Ile Pro Phe Ile Phe Leu Gly Trp Ile Gly Asp Lys
        35                  40                  45
Phe Gly Arg Arg Leu Pro Thr Ala Leu Gly Ser Val Ile Ile Ile Val
    50                  55                  60
Gly Val Leu Val Glu Phe Phe Ala Thr Ser Leu Asp Met Tyr Ile Gly
65                  70                  75                  80
Gly Lys Ile Val Leu Gly Val Gly Ser Ser Leu Ile Gln Met Gly Ala
                85                  90                  95
Pro Val Leu Val Thr Glu Leu Ser His Pro Lys Glu Arg Val Gln Ile
            100                 105                 110
Thr Thr Phe Tyr Asn Thr Ser Ile Val Leu Gly Tyr Val Ile Gly Ala
        115                 120                 125
Trp Ala Thr Phe Gly Cys Tyr Arg Ile Ser Ser Gln Trp Ser Trp Arg
    130                 135                 140
Leu Pro Thr Leu Ile Gln Ile Ile Pro Ser Ala Tyr Gln Xaa Trp Leu
145                 150                 155                 160
```

```
His Leu Gly Leu Pro Arg Asn Pro Pro Arg Trp Leu Ile Ala Lys Gly
                165                 170                 175
Ser Val Ala Gly Lys His Ala Arg Phe Trp Ser Asn Thr Thr Glu Asn
            180                 185                 190
Val Ile Pro Pro Pro Ser
        195
```

<210> 36917
<211> 97
<212> PRT
<213> A.fumigatus

<400> 36917

```
Glu Asp Ala Ser Lys Ser Cys Asn Phe Glu Pro Ile Tyr Ala Gly Ala
1               5                   10                  15
Pro Thr Cys Ala Ser Ser Tyr Thr Val Leu Tyr Pro Leu Lys Asp Thr
            20                  25                  30
Arg Ala Leu His Thr Met Ala Pro Ala Ala Ala His Ala Thr Asp Gly
        35                  40                  45
Ile Leu Ser Thr Ile Asp Leu Lys Ser Ile Pro Ser Phe Trp Arg Arg
    50                  55                  60
Lys Asn Gly Ile Leu Leu Tyr Phe Leu Leu Thr Ser Ser Leu Leu Ala
65                  70                  75                  80
Ser Ala Ala Leu Gly Ile Asp Gly Val Ser Glu Thr Pro Val Ser Arg
                85                  90                  95
Ser
```

<210> 36918
<211> 316
<212> PRT
<213> A.fumigatus

<400> 36918

```
Ala Ser Asp Ser Ala Met Lys Glu Asp Glu Gly Arg Glu Ser Pro Leu
1               5                   10                  15
Leu Asn His Tyr Gly Pro Asp Gly Arg Glu Ser Gln Ser Leu Leu Ser
            20                  25                  30
Gly Pro Pro Thr Lys Glu Thr Asn Gly Thr Thr His Pro Phe Thr Asn
        35                  40                  45
Ser Pro Pro Leu Thr Ser Pro Ser Ala Pro Pro Gly Ser His Gln Tyr
    50                  55                  60
Arg Ser Ser Ile Ser Gln Pro Ala Pro Asp Gly Gln Arg Arg Pro Arg
65                  70                  75                  80
Thr Met Asn Arg Val Arg Phe Asp Ile Glu Glu Glu Ser Glu Glu Glu
                85                  90                  95
Ser Leu Pro Asn Gly His Pro Arg Asp Ser Glu Asp Ser Trp Leu Glu
            100                 105                 110
Glu Glu Asp Tyr Ala Arg Pro Asn Thr Ser Arg Ser Gly Arg Asn Gly
        115                 120                 125
Arg Gly Gln Met Val Pro Leu Leu Thr Asp Ile Glu Ala Pro Ser Val
    130                 135                 140
Thr Leu Ala Thr Ser Asp Asp Phe Phe Pro Glu Glu His Leu Glu Asn
145                 150                 155                 160
Ala Arg Pro Arg Ser Gly Met Arg Met Ala Phe Met Asn Met Ala Asn
                165                 170                 175
```

```
Ser Ile Ile Gly Ala Gly Ile Ile Gly Gln Pro Tyr Ala Leu Arg Gln
            180                 185                 190
Ala Gly Met Thr Met Gly Val Leu Leu Leu Cys Ala Leu Thr Val Ala
        195                 200                 205
Val Asp Trp Thr Ile Arg Leu Ile Val Val Asn Ser Lys Leu Ser Gly
    210                 215                 220
Ala Asp Ser Phe Gln Ala Thr Met Gln His Cys Phe Gly Lys Ser Gly
225                 230                 235                 240
Leu Ile Ala Ile Ser Val Ala Gln Trp Ala Phe Ala Phe Gly Gly Met
                245                 250                 255
Ile Ala Phe Cys Ile Ile Val Gly Asp Thr Ile Pro His Val Phe Ser
            260                 265                 270
Ser Leu Phe Pro Ser Leu Arg Asp Met Ser Phe Leu Trp Leu Leu Thr
        275                 280                 285
Asp Arg Arg Ala Ile Ile Val Leu Phe Val Leu Gly Val Ser Tyr Pro
    290                 295                 300
Leu Ser Leu Tyr Arg Asp Ile Ala Lys Val Arg Phe
305                 310                 315
```

<210> 36919
<211> 70
<212> PRT
<213> A.fumigatus

```
<400> 36919
Leu Ala Lys Ala Ser Ala Leu Ala Leu Val Ser Met Leu Val Ile Val
1               5                   10                  15
Val Ala Val Ile Thr Gln Gly Phe Arg Val Pro Ser Glu Ser Arg Gly
            20                  25                  30
Glu Val Lys Asn Leu Leu Phe Leu Asn Ser Gly Phe Phe Gln Ala Val
        35                  40                  45
Gly Val Ile Ser Phe Gly Lys Phe Ala Leu Pro Lys Gly Pro Glu Val
    50                  55                  60
Leu Met Ser Asn Arg Pro
65                  70
```

<210> 36920
<211> 72
<212> PRT
<213> A.fumigatus

```
<400> 36920
Pro Ser Lys Asp His Asn Ser Leu Leu Ile Tyr Gly Ser Leu Lys Lys
1               5                   10                  15
Pro Thr Met Asp Arg Phe Ala Lys Val Thr His Tyr Ser Thr Ala Val
            20                  25                  30
Ser Leu Cys Met Cys Leu Ala Met Gly Ile Ser Gly Phe Leu Phe Phe
        35                  40                  45
Gly Ser Lys Thr Gln Gly Asn Val Leu Asn Asn Phe Pro Ser Asp Asn
    50                  55                  60
Val Met Val Asn Ile Ala Arg Leu
65                  70
```

<210> 36921
<211> 132
<212> PRT

<213> A.fumigatus

<400> 36921

```
His Gln Ile Val Arg Ser Cys Phe Gly Leu Asn Met Leu Thr Thr Leu
1               5                  10                  15
Pro Leu Glu Ala Phe Val Cys Arg Ser Val Met Thr Thr Tyr Tyr Phe
            20                  25                  30
Pro Asp Glu Pro Phe Asn Met Asn Arg His Leu Ile Phe Thr Thr Ser
        35                  40                  45
Leu Val Val Thr Ser Met Ala Met Ala Leu Phe Thr Cys Asp Leu Gly
    50                  55                  60
Ala Val Phe Glu Leu Ile Gly Ala Thr Ser Ala Ala Ala Leu Ala Tyr
65                  70                  75                  80
Ile Phe Pro Pro Leu Cys Tyr Val Lys Leu Ser Asn Ala Ser Trp Lys
                85                  90                  95
Ser Lys Val Pro Ala Tyr Leu Cys Leu Ala Phe Gly Ile Thr Val Met
            100                 105                 110
Gly Val Ser Leu Leu Gln Ala Val Ala Lys Met Ile Ser Ser Glu Phe
        115                 120                 125
Gly Pro Arg Arg
    130
```

<210> 36922
<211> 668
<212> PRT
<213> A.fumigatus

<400> 36922

```
Leu Phe Thr Asp Ala Ala Arg Glu Phe Pro Gly Asp Ser Trp Glu Ala
1               5                  10                  15
His Glu Ala Asn Met Val Ala Asn Ala Ile Met Asp Ala Phe Ile Ala
            20                  25                  30
Gly His Gly Ser Arg Asp Ser Ile Lys Glu Ala Arg Arg Ile Ala Gln
        35                  40                  45
Lys Tyr Leu Gly Asp Lys Val Asp Ser Ser Asp Val Tyr Glu Thr Asp
    50                  55                  60
Thr Gln Pro Ile Val Tyr Ala Ile Gly His Cys His Ile Asp Ser Cys
65                  70                  75                  80
Trp Leu Trp Pro Trp Ala Glu Thr Lys Arg Lys Val Ala Arg Ser Trp
                85                  90                  95
Ser Asn Gln Cys Asp Leu Met Asp Arg Tyr Pro Glu His Arg Phe Thr
            100                 105                 110
Cys Ser Gln Ala Gln Gln Phe Lys Trp Leu Glu Gln Tyr Tyr Pro Ser
        115                 120                 125
Val Phe Asp Arg Val Lys Arg Trp Val Lys Lys Gly His Phe Gln Pro
    130                 135                 140
Ile Gly Gly Ser Trp Val Glu His Asp Thr Asn Leu Pro Ser Gly Glu
145                 150                 155                 160
Ser Leu Val Arg Gln Phe Ile Tyr Gly Gln Arg Phe Phe Glu Ser Arg
                165                 170                 175
Phe Gly Glu Arg Cys Ser Thr Phe Trp Leu Pro Asp Thr Phe Gly Tyr
            180                 185                 190
Ser Ser Gln Ile Pro Gln Ile Cys Arg Leu Ala Gly Met Ser Arg Phe
        195                 200                 205
Phe Thr Gln Lys Leu Ser Trp Asn Asn Ile Asn Asn Phe Pro His Thr
    210                 215                 220
```

```
Thr Phe Lys Trp Val Ala Leu Asp Gly Ser Gln Val Met Cys His Met
225                 230                 235                 240
Ala Pro Ser Glu Thr Tyr Thr Ala Glu Ala His Phe Gly Asp Val Lys
                245                 250                 255
Arg Ser Val Thr Gln His Lys Ser Leu Asp His Asp Asn Thr Ser Leu
            260                 265                 270
Leu Val Phe Gly Lys Gly Asp Gly Gly Gly Gly Pro Thr Phe Glu His
        275                 280                 285
Leu Glu Lys Leu Arg Arg Cys Arg Gly Leu Ser Asp Lys Val Gly Leu
    290                 295                 300
Leu Pro Arg Val Lys Met Gly Asp Ser Val Asp Asp Phe Phe Thr Arg
305                 310                 315                 320
Leu Glu Gln Lys Val Ala Asn Gly Thr Glu Phe Val Thr Trp Tyr Gly
                325                 330                 335
Glu Leu Tyr Phe Glu Leu His Arg Gly Thr Tyr Thr Thr Gln Ala Asn
            340                 345                 350
Asn Lys Arg Asn Asn Arg Lys Ser Glu Phe Leu Leu Arg Glu Leu Glu
        355                 360                 365
Tyr Leu Ser Thr Leu Ala Ser Leu Thr Lys Thr Asn Gly Glu Tyr Asn
    370                 375                 380
Tyr Pro Lys Asn Asp Ile Asp Asp Met Trp Glu Gly Val Leu Leu Cys
385                 390                 395                 400
Gln Phe His Asp Cys Leu Pro Gly Ser Ser Ile Glu Met Cys Tyr Asp
                405                 410                 415
Asp Ser Asp Lys Leu Tyr Ala Gln Ile Phe Glu Thr Gly Glu Arg Ala
            420                 425                 430
Arg Gln Gln Ala Leu Glu Ala Leu Gly Phe Pro Asp Asn Ser Ala Gly
        435                 440                 445
Lys Ser Leu Val Ala Ile Asn Thr Leu Pro Trp Phe Arg Ser Glu Ile
    450                 455                 460
Val Lys Ile Pro Asp Glu Phe Val Ala Leu Thr Gly Ser Arg Tyr Ala
465                 470                 475                 480
Leu Ala Arg Gly Asp Pro Gly Leu Ile Gln Cys Gln Val Leu Asp Ala
                485                 490                 495
Lys Arg Lys Pro Thr Val Thr Val Ala Glu Ile Arg Pro Gly Ile Phe
            500                 505                 510
Arg Leu Asp Asn Gly Lys Leu Arg Val Asp Val Gln Asp Gly Val Ile
        515                 520                 525
Thr Ser Leu Tyr Asp Leu Glu Ala Glu Arg Glu Val Ile Ala Lys Gly
    530                 535                 540
Gly Lys Ala Gly Gln Leu Val Val Phe Asp Asp Lys Pro Leu Tyr Trp
545                 550                 555                 560
Gln Ala Trp Asp Val Glu Val Tyr His Leu Asp Ser Arg Lys Glu Leu
                565                 570                 575
Gln Ala Gly Lys Thr Ser Ile Ala Glu Glu Gly Pro His Arg Val Ser
            580                 585                 590
Val Ala Thr Thr Ile Gln Ile Ser Asp Gln Ser Trp Val Lys Thr Thr
        595                 600                 605
Ile Ser Leu Ala Ala Ala Val Asp Asp Gln Pro Ser Tyr Val Glu Phe
    610                 615                 620
Glu Ser Glu Val Glu Trp Gln Glu Thr Met Lys Phe Leu Lys Val Glu
625                 630                 635                 640
Phe Pro Val Asp Ile Thr Asn Thr Glu Ala Ser Tyr Glu Thr Gln Tyr
                645                 650                 655
Gly Ile Thr Arg Arg Pro Thr His Tyr Asn Thr Arg
            660                 665
```

<210> 36923
<211> 211
<212> PRT
<213> A.fumigatus

<400> 36923
Phe Ser Asn Arg Asn Ser Trp Asp Met Ala Lys Phe Glu Val Cys Cys
1 5 10 15
His Lys Trp Ala Asp Leu Ser Glu Tyr Gly Tyr Gly Val Ser Ile Leu
20 25 30
Asn Asp Ser Lys Tyr Gly Phe Ala Thr Cys Gly Asn Leu Met Arg Leu
35 40 45
Ser Leu Leu Arg Ala Pro Lys Ala Pro Asp Ala His Ala Asp Met Gly
50 55 60
Arg His His Ile Arg Tyr Ala Ile Leu Pro His Ala Gly Pro Leu Asp
65 70 75 80
Ala Arg Thr Val Arg Ala Gly Tyr Asn Phe Asn Ser Pro Leu Ile Leu
85 90 95
Arg Arg Cys Ser Gly Met Gln Ser Ala Asp Val Phe Arg Ser Ile Ala
100 105 110
Val Arg Gly Ser Gln Ser Leu Ile Leu Asp Val Val Lys Arg Gly Glu
115 120 125
Asp Asp Glu Asp Val Ser Arg Gly Glu Leu Pro Lys Arg Pro Gly Lys
130 135 140
Ser Ile Ile Leu Arg Ile Tyr Glu Ser Leu Gly Gly Arg Ser Arg Gly
145 150 155 160
Thr Ile His Ala Lys Phe Pro Val Lys Glu Ala Trp Lys Cys Asn Val
165 170 175
Leu Glu Asp Asn Glu Glu Arg Leu Glu Val Cys Lys Gly Glu Asp Asp
180 185 190
Val Ala Val Lys Ile Glu Leu Arg Ala Phe Glu Val Ala Thr Tyr Arg
195 200 205
Leu Gln Leu
210

<210> 36924
<211> 431
<212> PRT
<213> A.fumigatus

<400> 36924
Ser Val Leu Leu Pro Gln Thr Gly Ser Asp Arg Asp Leu Pro Ala Pro
1 5 10 15
Leu Asn Phe Gly Ala Asn Pro Ala Ala Asp Ser Pro Ile Lys Ser His
20 25 30
Glu Glu Ile Pro Val Ile Ile Pro Ser Asn Ser Ala Glu Thr Ser Pro
35 40 45
Gln Asp Thr Glu Ser Asp Arg Leu Arg Lys Glu Ile Ile Arg Ser Leu
50 55 60
Ser Arg Glu Thr Thr Pro Ser Ala Glu Thr Glu Gln Gln Ala Ser Asn
65 70 75 80
Lys Ala Gln Thr Ala Arg Gln Asp Thr Glu Thr Ser Leu Pro Asp Ser
85 90 95
Leu Ile Pro Ser Glu Tyr Glu Lys Tyr Trp Ser Glu Gln Val Glu Ser
100 105 110

```
Ser Pro Gln Asp Leu Arg Pro Pro Ala Ala Val Tyr Gly Ala Ser Gln
        115                 120                 125
Asn Val Pro Gln Gln Asp Leu Tyr Thr Ser Ser Pro Met Ser Ala Ser
    130                 135                 140
Ala Pro Thr Ala Pro Thr Gln Pro Thr Ser Glu Pro Lys Leu Asn Arg
145                 150                 155                 160
Arg Phe Ser Trp Glu Ser Ser Ser Glu Glu Glu Val Pro Pro Val Asp
                165                 170                 175
Leu Gln Ala Ala Ser Pro Ser Ala Ile Pro Ile Ser Gly Gln Leu Pro
            180                 185                 190
Glu Ala Asn Asp Ala Ala Glu Pro Ala Pro Glu Thr Ala Ala Asn Glu
        195                 200                 205
Ser Glu Val Ala Thr Asp Arg Gly Pro Glu Ala Asp Val Gln Gln Thr
    210                 215                 220
Pro Glu Lys Pro Lys Leu Thr Leu Val Thr Pro Ala Ala Met Glu Asn
225                 230                 235                 240
Ser Arg Asp Ser Asn Glu Asn Tyr Leu Pro Glu Val Val Asn Arg Gln
                245                 250                 255
Ser Leu Glu Glu Arg Ser Pro Leu Pro Glu Pro Lys Met Pro Pro Thr
            260                 265                 270
Val Glu Pro Thr Leu Leu Gly Phe Arg Asp Ile Met Gly Ile Gln Ser
        275                 280                 285
Ser Asp Glu Arg Val Arg Ala Phe Asp Arg Thr Arg Asp Gln Phe Ala
    290                 295                 300
Thr Ile Asp Thr Gly Leu Lys Asn Trp Leu Gln Val Val Ile Arg Ala
305                 310                 315                 320
His Pro Glu His Met Asp Val Val Glu Gln Ser Arg Lys Ala Ser Ser
                325                 330                 335
Ile Glu Pro Lys Ala Val Val Ser Lys Gly Lys Phe Pro Lys Leu Ser
            340                 345                 350
Ser Leu Gly His Phe Thr Ser Ser Asn Gln Asp Gly His Pro Ser Gly
        355                 360                 365
Pro Gly His Ala Arg Arg Pro Ser Ala Pro Leu Gly Ser Ile Met Asn
    370                 375                 380
Lys Gln Gln Val Glu Gln Arg Gly Lys Asp Leu Leu His Thr Ala Gly
385                 390                 395                 400
Ala Leu Gly Gly Arg Ala Gly Glu Ala Ala Lys Gly Leu Phe Ala Lys
                405                 410                 415
Gly Arg Asn Lys Leu Lys Arg Gly Glu Ser Glu Lys Val Asp Ala
            420                 425                 430
```

<210> 36925
<211> 99
<212> PRT
<213> A.fumigatus

<400> 36925

```
Leu Pro His Asp Tyr Gln Ile Phe Leu Arg Leu Asn Ala Glu Arg Pro
1               5                   10                  15
Cys Val Glu Val Cys Pro Val Cys Lys Ser Ser Arg Tyr Leu Asn Pro
            20                  25                  30
Asp Met Arg Phe Leu Ile Asn Pro Glu Cys Tyr His Lys Met Cys Glu
        35                  40                  45
Ser Cys Val Asp Arg Ile Phe Ser Ser Gly Pro Ala Asn Cys Pro Val
    50                  55                  60
Ala Gly Cys His Arg Thr Leu Arg Lys Asn Arg Phe Arg Lys Gln Thr
```

65 70 75 80
Phe Glu Asp Ile Gly Val Glu Arg Glu Val Asp Ile Arg Arg Arg Val
85 90 95
Met Ser Met

<210> 36926
<211> 290
<212> PRT
<213> A.fumigatus

<400> 36926
Ala Ala Leu Met Ser Phe Ser Leu Asn Arg Arg Glu Glu Glu Phe Asp
1 5 10 15
Ser Lys Arg Ala Trp Asp Asp Phe Leu Glu Gln Arg Glu Glu Ile Ile
20 25 30
Ala Asn Leu Val His Gly Thr Asp Val Ala Lys Thr Glu Ala Asp Leu
35 40 45
Gln Lys Tyr Ala Gln Glu Asn Met Asn Ser Ile Arg Ala Asn Arg Ala
50 55 60
Leu Glu Val Gln Glu Ala Thr Ser Phe Gln Glu Gln Gln Thr Gln Glu
65 70 75 80
Gln Glu Leu Ala Arg Ile Arg Arg Glu Glu Ala Arg Gln Glu Tyr Glu
85 90 95
Asn Glu Arg Arg Glu Val Ile Ala Gly Arg Glu Asp Tyr Leu Ala Arg
100 105 110
Leu Ala Ser Gly Lys Pro Gly Asp Ala Ala Thr Ile Ala Arg Glu Ser
115 120 125
His Lys Val Leu Leu Lys Lys Ser Ser Ala Arg Arg Ser Glu Glu Glu
130 135 140
Arg Ile Arg Gln Lys Gln Ala Ala Leu Arg Ser Ser Glu Leu Lys Lys
145 150 155 160
Leu Gly Gln Ala Ala Thr Thr Ala Asp Arg Ala Gly Pro Ala Asp Thr
165 170 175
Gly Leu Ile Lys Gly Leu Lys Lys Ile Lys Thr Pro Glu Pro Glu Lys
180 185 190
Ala Tyr Asp Pro Phe Gly Gly Phe Ile Pro Asn Lys Arg Asp Tyr Tyr
195 200 205
Thr Leu Arg Asp His Tyr Pro Ser Ser Tyr Leu Asp Pro Ile Arg Gln
210 215 220
Asp Thr Arg Met Gln Ala Gly Gly Tyr Asp Leu Arg Glu Tyr Tyr Ser
225 230 235 240
Arg Thr Leu Leu Glu Ala Phe Ala Gly Leu Gly Cys Phe Ile Asp Glu
245 250 255
Glu Val Ser Lys Arg Asp Ala Thr Ser Lys Leu Ala Asn Ala Lys Pro
260 265 270
Val Ala Thr Glu Gly Ala Ala Met Ala Ala Val Ser Ser Ser Lys Val
275 280 285
Ala Thr
290

<210> 36927
<211> 482
<212> PRT
<213> A.fumigatus

<400> 36927

```
Pro Ser Ser Gly Cys Ala Ala Lys Leu Trp Ile Ser Tyr Arg Ala Asn
1               5                  10                  15
Pro Ser Pro Ser Arg Ser Ala Arg Asp Ser Ser Ile Cys Ser Glu Gln
            20                  25                  30
Val Asn Asn Pro Gln Pro Pro Asp Arg Ile Glu His Ile Arg Arg Gln
        35                  40                  45
Leu Leu Glu Thr Thr Asp Trp Ala Ala Val Arg Ala Ala Gln Pro Leu
    50                  55                  60
Lys Ile Ser Phe Thr Pro Val Glu Glu Val Glu His Phe Gly Lys Arg
65                  70                  75                  80
Arg Arg Leu Thr Glu Ala Asp Arg Thr Arg Ile Ala Ala Val Glu Asn
                85                  90                  95
Gly Ala Val Pro Tyr Glu Ile Pro Lys Ser Arg Arg Ala Pro Arg Gln
            100                 105                 110
Asn Ile Ser Ser Asp Arg Leu Gly Ile Glu Gly Leu Glu Ile Lys Ile
        115                 120                 125
Asn Gly Gln Arg Cys His Thr Gly Glu Ser Ile Leu Lys Glu Arg His
    130                 135                 140
Glu Asn Phe Ser Ser Gln Pro Met Leu Leu Asp Gly Asp Val Ser Ile
145                 150                 155                 160
Arg Pro Asp Gln Gly Ser Asp Pro Ser Val Gln Pro Tyr Ser Asp Ala
                165                 170                 175
Lys Ala Trp Ser Ala Lys Ala Asp Ser Val Asp Arg Ser Leu Tyr Cys
            180                 185                 190
Gln Arg Lys Ser Ala Tyr Pro Lys Ser Ser Ile His Ser Ile Ala Ile
        195                 200                 205
Ser Arg Ser Arg Leu Ser Gly Ala Ala Ile Pro Gly Arg Ile Pro Ser
    210                 215                 220
Ser Arg Asn Arg Ser Glu Leu Ile Gln Thr Ser Gly Phe Ser Gly Gln
225                 230                 235                 240
Asp Leu Gly Ala Ser Ile Leu Ala Pro Gln Arg His His Glu Ser Asn
                245                 250                 255
Arg Val His Gln Ser Ser Gly Ser Ile Ile Gln Asn Arg Phe Thr Ile
            260                 265                 270
Asp Asp Gln Ile Ala Ala Glu Lys Gly Arg Cys Ser Asn Asp Gly Ile
        275                 280                 285
Ile Ile Thr Thr Arg Pro Asp Arg His Gly Gly Pro Gln Leu Glu Gln
    290                 295                 300
Arg Pro Phe Ser Gln Ser Ser Gln Tyr Ser Arg Ser Leu Gly Gln Ser
305                 310                 315                 320
Phe Gly His His Glu His Glu His Ala Ala Ala Val Thr Arg Ser Pro
                325                 330                 335
Ser Gly Trp Leu Pro Glu Pro Arg Tyr Ser Ile Arg Arg Pro Leu Ser
            340                 345                 350
Gln Lys Val Asn Ser Leu Tyr Ser Leu Gly Pro Asp Thr Pro Cys Gly
        355                 360                 365
Asn Ser Arg Ala Arg Gln Cys Ala Ser Pro Met Val Ile Phe Gly Gln
    370                 375                 380
Pro Ile Asp Val Ala Arg Asn Gln Ala Ser Asn Gly Thr Thr Asp Trp
385                 390                 395                 400
Met Pro Thr Pro Trp Asn Ser Ala Val Lys Glu Pro Lys Val Thr Pro
                405                 410                 415
Leu Thr Glu Asp Ser His Ala Thr Ser Ile Tyr Gly Phe Ala Ser Gln
            420                 425                 430
Ser Pro Asp Asn Thr Thr Asp Thr Gln Gly Ser Ser Gln Ile Ser His
```

```
        435                 440                 445
Thr Gly Ile Gly Asp Asn Gly Arg Ile Asn Ile Ile Asp Arg Ile Tyr
    450                 455                 460
Thr Gly Thr Pro Ile Leu Ala Thr Ala Thr Leu Asp Pro Cys Ala Ala
465                 470                 475                 480
Phe Leu
```

<210> 36928
<211> 91
<212> PRT
<213> A.fumigatus

<400> 36928

```
Glu Phe Leu Thr Trp Val Thr Ser Arg Lys Tyr Pro His Phe Asp Gln
1               5                   10                  15
Ser Glu Ile Phe Ser Leu Gln Asp Ala Phe Arg Lys Leu Asp Val Asp
            20                  25                  30
Asp Lys Gly Tyr Leu Asp Glu Ala Thr Val Ile Lys Ala Thr Gln Gln
        35                  40                  45
Ser Glu Arg Gln Pro Tyr Asp Val Val Arg Gln Ala Leu Lys Glu Val
    50                  55                  60
Asp Leu Asp Ser Ser Arg Arg Val Glu Leu Glu Asp Tyr Val Asp Val
65                  70                  75                  80
Arg Val Cys Ile Phe Ile Ala Thr Gly Thr Met
                85                  90
```

<210> 36929
<211> 235
<212> PRT
<213> A.fumigatus

<400> 36929

```
Lys Ser Ile Gln Gln Leu Ile Ser Arg Leu Arg Ser Thr Pro Ala Gln
1               5                   10                  15
Asn Arg Ala Thr Ala Gly Pro Ser Ala Ala Pro Gly Ile Pro Glu Ile
            20                  25                  30
Gly Met Gly Val Ala Arg His Val Ser Lys Gly Ser Val Gly Gly Arg
        35                  40                  45
Ile His Val Gln Gly Ser Ser Ala Asn Val Thr His Thr Ile Asn Glu
    50                  55                  60
Asp Glu Arg Thr Glu Phe Thr Arg His Ile Asn Ala Val Leu Ala Gly
65                  70                  75                  80
Asp Pro Asp Ile Gly His Leu Leu Pro Phe Pro Thr Asp Thr Phe Glu
                85                  90                  95
Met Phe Asp Lys Cys Lys Asp Gly Leu Val Leu Ala Lys Leu Ile Asn
            100                 105                 110
Asp Ser Val Pro Asp Thr Ile Asp Glu Arg Val Leu Asn Lys Pro Gly
        115                 120                 125
Arg Lys Ile Lys Asp Leu Asn Ala Phe His Met Thr Glu Asn Asn Asn
    130                 135                 140
Ile Val Ile Asn Ser Ala Lys Gly Ile Gly Cys Ser Val Val Asn Ile
145                 150                 155                 160
Gly Ser Gly Asp Ile Ile Glu Val Arg Glu His Leu Ile Leu Gly Leu
                165                 170                 175
Ile Trp Gln Ile Ile Arg Arg Gly Leu Leu Gly Lys Ile Asp Ile Lys
```

```
            180                 185                 190
Leu His Pro Glu Leu Tyr Arg Leu Leu Glu Asp Asp Glu Thr Leu Asp
        195                 200                 205
Gln Phe Leu Arg Leu Pro Pro Glu Gln Ile Leu Leu Arg Trp Phe Asn
    210                 215                 220
Tyr His Leu Lys Asn Ala Lys Trp Asp Arg Lys
225                 230                 235

<210> 36930
<211> 156
<212> PRT
<213> A.fumigatus

<400> 36930
Cys Ser Ser Leu Thr Cys His Arg Val Thr Asn Phe Ser Thr Asp Val
1               5                   10                  15
Lys Asp Gly Glu Asn Tyr Ala Val Leu Leu Asn Gln Leu Ala Pro Asn
            20                  25                  30
Leu Cys Ser Arg Ala Pro Leu Glu Thr Arg Asn Leu Leu Glu Arg Ala
        35                  40                  45
Glu Gln Val Leu Ala Asn Ala Glu Lys Leu Asn Cys Arg Lys Phe Leu
    50                  55                  60
Thr Pro Ser Ser Leu Val Ala Gly Asn Pro Lys Leu Asn Leu Ala Phe
65                  70                  75                  80
Val Ala Asn Leu Phe Asn Thr Ile Pro Gly Leu Asp Pro Ile Thr Glu
                85                  90                  95
Glu Glu Lys Leu Glu Val Glu Asp Phe Asp Ala Glu Gly Glu Arg Glu
            100                 105                 110
Ala Arg Val Phe Thr Leu Trp Leu Asn Ser Leu Asp Val Gln Pro Pro
        115                 120                 125
Val Asn Ser Leu Phe Asp Asp Leu Arg Asp Gly Thr Ile Leu Leu Gln
    130                 135                 140
Ala Tyr Asp Lys Val Ile Pro Gly Ser Val Asn Trp
145                 150                 155

<210> 36931
<211> 72
<212> PRT
<213> A.fumigatus

<400> 36931
Arg Phe Val Val Leu Lys Lys Pro Ile Glu Phe Gly Met Lys Leu Asp
1               5                   10                  15
Ile Asn Phe Ser Gln Lys Thr Ser Pro Asp Asn Leu Pro Asn Gln Thr
            20                  25                  30
Gln Asn Gln Val Leu Ala Asp Leu Tyr Asp Val Ala Ala Ser Asp Val
        35                  40                  45
Asn His Arg Ala Pro Asn Ser Leu Gly Arg Ile Asp His Asn Val Ile
    50                  55                  60
Val Leu Ser His Met Glu Cys Ile
65                  70

<210> 36932
<211> 133
<212> PRT
<213> A.fumigatus
```

<400> 36932
Ser Leu Ile Ser Ile Phe Pro Lys Arg Pro Arg Arg Ile Ile Cys Gln
1 5 10 15
Ile Lys Pro Lys Ile Arg Cys Ser Arg Thr Ser Met Met Ser Pro Leu
20 25 30
Pro Met Leu Thr Thr Glu His Pro Ile Pro Leu Ala Glu Leu Ile Thr
35 40 45
Met Leu Leu Phe Ser Val Ile Trp Asn Ala Phe Arg Ser Leu Ile Phe
50 55 60
Leu Pro Gly Leu Phe Arg Thr Arg Ser Ser Ile Val Ser Gly Thr Leu
65 70 75 80
Ser Leu Met Ser Phe Ala Arg Thr Asn Pro Ser Leu His Leu Ser Asn
85 90 95
Ile Ser Lys Val Ser Val Gly Asn Gly Ser Arg Trp Pro Ile Ser Gly
100 105 110
Ser Pro Ala Arg Thr Ala Leu Ile Cys Leu Val Asn Ser Val Leu Ser
115 120 125
Ser Ser Leu Ile Val
130

<210> 36933
<211> 71
<212> PRT
<213> A.fumigatus

<400> 36933
Pro Gly Leu Arg Phe Ser Pro Leu Asn Arg Leu Thr Ile Thr Asp Asn
1 5 10 15
Asp Ala Ile Ile Asn Asn His Ala Leu Arg Ser Val Tyr Leu Pro Pro
20 25 30
Pro Ser Cys Ser Trp Thr Leu Ser Leu Lys Leu Glu Phe Cys Phe Asn
35 40 45
Ile Glu Leu Ile Ile Tyr Glu Gln Asn Tyr Ser Val Tyr Arg Ile Ser
50 55 60
Pro Leu Cys Ser Ile Val Arg
65 70

<210> 36934
<211> 68
<212> PRT
<213> A.fumigatus

<400> 36934
Gly Ser Asp Thr Val Gly Asp His Leu Thr Pro Gly Pro Thr Cys Arg
1 5 10 15
Pro Ile Ser Leu Thr Asp Phe Gln Asn Asp Gln Thr Ser Thr Ala His
20 25 30
Asn Ser Thr Asn Ile Thr Leu Ile Lys Ala Ala Leu Glu Val Ile Lys
35 40 45
Leu Leu Glu Leu Gly Glu Leu Ile Asn Tyr Thr Phe Phe Ala Asn Lys
50 55 60
Tyr Gly Val Ser
65

<210> 36935

<211> 171
<212> PRT
<213> A.fumigatus

<400> 36935

```
Val Asp Ser Asn Ser Ala Thr Leu Ala Ser Ser Ser Val Leu Val Asp
1               5                  10                  15
Ser Asn Ala Ala Thr Leu Glu Ser Ser Ser Ser Phe Val Glu Ala Ser
            20                  25                  30
Ser Ala Ser Phe Asp Ser Ser Ser Val Thr Leu Glu Ser Asn Ser Asp
        35                  40                  45
Cys Arg Ala Ser Cys Phe Ser Cys Ser Cys Cys Phe Ser Phe Ser Tyr
    50                  55                  60
Ser Val Phe Ile Val Val Cys Trp Ser Ser Asn Ser Phe Ser Arg Ala
65                  70                  75                  80
Ala Lys Ala Ser Gly Ala Ala Phe Ser Ser Ser Ala Leu Ile Ser Ser
                85                  90                  95
Asn Ser Ser Ile Asn Ser Cys Leu Leu Ile Cys Lys Ser Phe Arg Pro
            100                 105                 110
Leu Leu Leu Leu Thr Phe Gln Phe Leu Leu Val Arg Leu Leu Arg Phe
        115                 120                 125
Phe Asp Val Arg Leu Gln Ser Ser Asp Leu Pro Phe Gln Phe Arg Leu
    130                 135                 140
Arg Leu Gln Glu Leu Leu Val Glu Leu Phe Arg Leu Arg Gln Ala Leu
145                 150                 155                 160
Phe Asn Val Leu Pro Leu Leu Leu Glu Val Ala
                165                 170
```

<210> 36936
<211> 207
<212> PRT
<213> A.fumigatus

<400> 36936

```
Gly Pro Tyr Leu Arg Pro Thr Pro Arg Gly Ser Ile Asp Pro His Tyr
1               5                  10                  15
Val Ser Ala Tyr Gln Ala Ile Arg Asp Met Gly Leu Pro Asn Gly His
            20                  25                  30
Gly Val Asn Asp Arg Gly Thr Ile Ser Pro Pro Gln Glu Gln His Asp
        35                  40                  45
Glu Pro Leu Glu Leu Leu Gln Arg Ile Gln Glu Ala Ile Pro Asp Ile
    50                  55                  60
Asn Arg Leu Leu Asp Gly Tyr Lys Asn Thr Lys Ser Lys Leu Ala Ala
65                  70                  75                  80
Arg Glu Ala Glu Phe Lys Gln Met Glu Thr Gln His Glu Gln Ala Leu
                85                  90                  95
Met His Lys Asp Phe Tyr Ile Glu Ala Leu Gln Asn Gln Met Arg Lys
            100                 105                 110
Ala Ala Asn Glu Ser Ala Glu Glu Ala Thr Lys Leu Lys Asn Thr Ile
        115                 120                 125
Asn Glu Leu Arg Met Glu Leu Gly Asn Leu Glu Glu Lys Arg Lys Asp
    130                 135                 140
Ile Glu Glu Ser Leu Ala Glu Ala Glu Lys Phe Asn Gln Glu Leu Leu
145                 150                 155                 160
Gln Thr Lys Ser Glu Leu Glu Gly Gln Val Ala Thr Leu Lys Thr Asn
                165                 170                 175
```

```
Ile Lys Glu Ala Gln Glu Ala His Glu Gln Glu Leu Glu Arg Gln Lys
            180                 185                 190
Glu Glu Arg Ala Glu Ala Leu Ala Asn Gln Lys Ala Arg Val Asp
        195                 200                 205

<210> 36937
<211> 311
<212> PRT
<213> A.fumigatus

<400> 36937
Asp Val Gly Asn Ala Ile Asn Val Pro Val Leu Ile Arg Ile Ser Lys
1               5                   10                  15
Ser Ser Leu Asp Cys Phe Asp Gln Leu Ser Arg Leu Ile Val Ser Leu
            20                  25                  30
Ser Lys Glu His Phe Thr Tyr Leu Pro Ile Asp Pro Pro Lys Asp Ile
        35                  40                  45
Leu Ser Lys Ile Pro Pro Glu Leu Pro Ser Phe Leu Asp Asn Thr Pro
    50                  55                  60
Ala Ser Arg Glu Leu Arg Ser Ala Tyr Val Gln His Val Ile Ser Lys
65                  70                  75                  80
Thr Leu Thr Tyr Arg Ile Phe Gln Pro Phe Leu Phe Thr Leu Gly Arg
                85                  90                  95
Arg Tyr Asp Lys Ala Asp Thr Phe Phe Gln Met Leu Ser Met Asp Ile
            100                 105                 110
Arg Arg Lys Ser Val Arg Arg Glu Ala Phe Trp Arg Gln Gln Thr Leu
        115                 120                 125
Lys Ala Ala Tyr Thr Thr Ser Asp Ala Lys Gln Ser Ile Asn Val Val
    130                 135                 140
Ala Ala Val Ile Val Asp Glu Ile Ile Asp Leu Ile Lys His Phe Ala
145                 150                 155                 160
Asp Pro Arg His Leu Asp Ser Leu Leu Ile Gly Val Arg Lys Ile Val
                165                 170                 175
Lys Leu Ala Ala Glu Thr Trp Arg Leu Ala Arg Val Glu Arg Glu Leu
            180                 185                 190
Ile Ile Ala Ser Leu Pro Ala Pro Asp Ala Glu Ala Val Ser Asn Asp
        195                 200                 205
Ser Trp Asp Glu Tyr Gly Ala Pro Lys Glu Arg Asn Val Ser Leu Gly
    210                 215                 220
Asn Asp Pro Ser Arg His Val Ile Leu Arg Thr Phe Pro Gln Ile Thr
225                 230                 235                 240
Arg Glu Ala Ala His Glu Asp Phe Ala Glu Asp Glu Glu Lys Ala Ser
                245                 250                 255
Pro Cys Thr Tyr Ser Arg Gly Thr Val Leu Tyr Ser Asp Ser Pro Val
            260                 265                 270
Val Met Ala Arg Leu Gln Glu Leu Ala Lys Lys Ser Thr Glu Thr Leu
        275                 280                 285
Ala Ser Gly Glu Asp Ser Pro Arg Arg Gly Ser Arg Gly Ser Leu Arg
    290                 295                 300
Ser Val Glu Val Thr Ala His
305                 310

<210> 36938
<211> 240
<212> PRT
<213> A.fumigatus
```

<400> 36938
Arg Arg Thr Ser Lys Lys Arg Arg Arg Arg Thr Ser Lys Asn Trp Asn
1 5 10 15
Val Arg Arg Arg Arg Gly Arg Lys Leu Leu Gln Ile Arg Arg Gln Glu
20 25 30
Leu Ile Glu Leu Phe Glu Glu Ile Lys Ala Glu Asp Glu Lys Ala Ala
35 40 45
Pro Glu Ala Leu Ala Ala Arg Glu Lys Glu Leu Leu Asp Gln Gln Thr
50 55 60
Thr Met Lys Thr Glu Tyr Glu Lys Glu Lys Gln Gln Leu His Glu Lys
65 70 75 80
His Asp Ala Leu Gln Ser Glu Phe Asp Ser Lys Val Thr Glu Leu Glu
85 90 95
Ser Lys Glu Ala Glu Leu Ala Ser Thr Lys Glu Glu Leu Asp Ser Lys
100 105 110
Val Ala Ala Leu Glu Ser Thr Lys Thr Glu Leu Asp Ala Lys Val Ala
115 120 125
Glu Leu Glu Ser Thr Gln Ala Glu Leu Ile Ser Thr Lys Asp Ala Leu
130 135 140
Asp Ala Lys Gln Lys Glu Leu Asp Gln Lys Glu Gln Arg Trp Thr Asp
145 150 155 160
Glu Arg Thr Glu Leu Glu Ala Arg Ile Ser Ala Lys Cys Glu Glu Leu
165 170 175
Ala Asn Cys Glu Arg Glu Asn Lys Lys Leu Glu Glu Asn Asn Leu Leu
180 185 190
Lys Glu Gln Gln Leu Glu His Ala Val Glu Gly Met Arg Ala Thr Ile
195 200 205
Asp Asn Leu Gly Lys Asp Cys Asp Arg Leu Arg Lys Thr Leu His Ser
210 215 220
Leu Gly Glu Ala Thr Asp Leu Lys Ser Thr Lys Gly Asp Ser Phe Leu
225 230 235 240

<210> 36939
<211> 138
<212> PRT
<213> A.fumigatus

<400> 36939
Ala Ser Gly Ser Arg Asn Arg Ala Asp His Gln Thr Arg Phe Asp Phe
1 5 10 15
Tyr Phe Lys Ser Cys Ser Ala Gln Pro Ala Thr Met Pro Pro Lys Ala
20 25 30
Arg Ile Asn Ser Lys Asn Ser Val Glu Gln Glu Gly Arg Val Leu Leu
35 40 45
Ala Val Ser Ala Leu Lys Asn Lys Glu Ile Leu Asn Ile Arg Glu Ala
50 55 60
Ala Arg Val Tyr Asn Val Pro Tyr Thr Thr Leu Gln Arg Arg Leu Lys
65 70 75 80
Gly His Thr Phe Gln Ala Glu Leu Arg Val Asn Gly His Lys Met Thr
85 90 95
Gln Asn Glu Glu Asp Ser Leu Ile Arg Trp Ile Leu Ser Met Asp Gln
100 105 110
Arg Gly Ala Ala Pro Arg Pro Ser His Val Gln Glu Ile Ala Asn Ile
115 120 125
Leu Leu Ala Gln Arg Gly Leu Thr Pro Thr

130 135

<210> 36940
<211> 76
<212> PRT
<213> A.fumigatus

<400> 36940
Phe Ser Arg Arg Tyr Asn His Gln Cys Ala Lys Cys Glu Asp Leu Lys
1 5 10 15
Ile Ile Leu Glu Trp Phe Asn Tyr Ile Gln Ile Thr Ile Met Gln His
20 25 30
Gly Ile Thr Leu Glu Asp Ile Tyr Asn Phe Asn Lys Thr Gly Phe Ala
35 40 45
Met Gly Leu Val Ala Thr Thr Lys Val Val Ile Arg Ala Lys Met Leu
50 55 60
Ser Gln Pro Phe Leu Ile Gln Leu Gly Asn Cys Glu
65 70 75

<210> 36941
<211> 94
<212> PRT
<213> A.fumigatus

<400> 36941
Phe Asp Gln Ile Cys Thr Glu Asn Asp Ile Ile Leu Ile Cys Met Pro
1 5 10 15
Ala His Ser Ser His Leu Leu Gln Pro Leu Asn Ile Ser Cys Phe Ser
20 25 30
Pro Leu Lys Arg Ala Tyr Gly Cys Leu Ile Glu Asp Lys Met Gln Leu
35 40 45
Gly Phe Asn His Ile Asn Lys Phe Asp Phe Leu Glu Ala Tyr Pro Gln
50 55 60
Ala Cys Thr Ala Ile Phe Ser Ala Asp Asn Ile Lys Ser Gly Phe Leu
65 70 75 80
Ala Thr Gly Leu Ile Leu Leu Asn Pro Asp Trp Val Leu Ser
85 90

<210> 36942
<211> 217
<212> PRT
<213> A.fumigatus

<400> 36942
Phe His Pro Tyr Thr Ile Val Ile Met Leu Arg Arg Phe Ser Ser Thr
1 5 10 15
Phe Lys Lys Lys Gly Asp Arg Glu Ser Lys Gln Asn Gly Thr Ala Ser
20 25 30
Ser Ser Ser Ala Ala Val Ala Asn Thr Asn Asn Asn Asp Asn Lys Arg
35 40 45
His Ser Lys Ile Ser Ala Ala Arg Lys Ser Ser Ser Asp Asp Asp Arg
50 55 60
Asn Glu Lys Lys Gly Asn Ser Val Ser Pro Phe Glu Lys Tyr Ala Ser
65 70 75 80
Val Leu His Ala Ser Arg Ser Pro Ile Pro Asn Gln Thr Gly Asp Gly
85 90 95

```
Ala Tyr Leu Glu His Glu His Thr Thr Ser Leu Leu Gln Asp Ala Arg
            100                 105                 110
His Leu Gly Phe Lys Asp Phe Lys Thr Leu Lys Glu Val Ile Glu Ser
        115                 120                 125
Lys Leu Pro Gly Gly Gln Leu Ile Asp Asp Lys Thr Met Leu Met Glu
    130                 135                 140
Arg Ile Ile Gln Val Arg Trp Pro Thr Ala Asn Thr Gly Arg Leu Asp
145                 150                 155                 160
Gln Asn Ala Glu Thr Ile Phe Thr Gln Leu Val Ala Gly Gln Gln Ala
                165                 170                 175
Ser Ser Gln Leu Lys Ala Ser Arg Gly Ala Asn Lys Arg Leu Pro Tyr
            180                 185                 190
Gly Ala Val Gly Phe Val Ala Ser Pro Ser Ser Leu Val Ser Leu Arg
        195                 200                 205
Thr Thr Ser Thr Leu Gly Gly Val Cys
    210                 215
```

<210> 36943
<211> 61
<212> PRT
<213> A.fumigatus

<400> 36943

```
Tyr Leu Ala Ala Ala Glu Ile Gly Gly Tyr Phe Glu Pro Leu Lys His
1               5                   10                  15
Asp Phe Ile Thr Lys Ser Ser Tyr Ser Cys Ala Ala Asp Ile Ala Ile
            20                  25                  30
Ala Tyr Gly Leu Glu Tyr Gly Ser His Cys Ser Val Gly Val Pro Ile
        35                  40                  45
Glu Gly Val Val Leu Tyr Leu Leu Pro Ala Leu Glu Gly
    50                  55                  60
```

<210> 36944
<211> 66
<212> PRT
<213> A.fumigatus

<400> 36944

```
Ile Gln Cys Lys Pro Tyr Leu Ser Val Arg Gly Pro Glu Ala Gly Cys
1               5                   10                  15
Gln Glu Met His Leu Leu Val Lys Leu Asn Tyr Ser His His Ile Pro
            20                  25                  30
Arg Phe Ser Leu Val Gln Gly Ser Arg Arg Ser Thr Leu Ser Asn Lys
        35                  40                  45
Asp Val Gln Gln Leu Phe Val Pro Ala Gly Tyr Ala Phe Leu Ser Phe
    50                  55                  60
Thr Ile
65
```

<210> 36945
<211> 524
<212> PRT
<213> A.fumigatus

<400> 36945

```
Phe Val Thr Ala Pro Glu Met Ser Pro Pro Ala Val Ser Val Val Ile
```

```
1               5                   10                  15
Ser Pro Pro Thr Val Asp Leu Asp Ser Tyr Glu Pro Phe Asp Gly Gln
            20                  25                  30
Tyr Thr Arg Thr Val Asp Glu Ile Leu Ser Asp Glu Pro Ser Phe Asp
        35                  40                  45
Ala Ser Ser Asp Ala Cys Asn Ser Gly Ile Ser Met Asp Gly Ser Asn
    50                  55                  60
Gly Ser Leu Gln Arg Glu Arg Ala Ile Ser Arg Ala Ser Val Gly Lys
65                  70                  75                  80
Arg Thr Gly Pro Lys Lys Ser Pro Tyr Phe Ser Thr Gly Gln Met Ser
                85                  90                  95
Gln Arg Arg Ile Gly Ser Lys Arg Ser Ile Thr Arg Ile Asp Val Asp
            100                 105                 110
Glu Asp Asp Asp Glu Asp Asp Asp Asp Asp Asp Asp Glu Asp Glu Asp
        115                 120                 125
Glu Asp Asp Ile Thr Pro Ala Thr Ser Val Glu Ser Val Lys Ile Gln
    130                 135                 140
Val Val Asp Asn Asn Ile Glu Asp Glu His His Asp Asn Lys Thr Tyr
145                 150                 155                 160
Ala Lys Ala Asn Gly Asn Ala Val Asp Asp Asp Ile Ala Glu Glu Asp
                165                 170                 175
Ile Val Phe Ala Ser Val Gly Pro Glu Met Gln Ala Arg Leu Leu Asn
            180                 185                 190
Phe Ile Ala Ser His Ser Phe Met Arg Asn Gly Ser Tyr Pro Val Arg
        195                 200                 205
Arg Ser Lys Arg Arg Thr Phe Val Cys Glu Leu Tyr Glu Gln Ala Lys
    210                 215                 220
Ser Thr Gly Met Asp Glu Tyr Ser Ile Asp Arg Leu Thr Asn Tyr Val
225                 230                 235                 240
Arg Lys Thr Tyr Leu Glu Leu Tyr Gly Lys Asp Tyr Val Asp Thr Gln
                245                 250                 255
Gly Ser Glu Phe Gly Asp Glu Ile Asp Asp Val Gly Gly Lys Arg Arg
            260                 265                 270
Arg Ser Leu Asn Asp Ser Lys Lys Asp Arg Lys Arg Lys Arg Leu Asn
        275                 280                 285
Gly Asp Ala Ala Lys Gln Lys His Lys Lys Ser Arg Ser Gln Ser Ser
    290                 295                 300
Gln Glu Lys Arg Thr Thr Ser Thr Ala Asp Ser His Asn Asn Ser Lys
305                 310                 315                 320
Arg Glu Val Ile Asp Leu Glu Ala Glu Tyr Pro Leu Ala Asp Phe Ser
                325                 330                 335
Ala Ser Ala Thr Glu Pro Glu Gly Phe Glu Ser Lys Ser Thr Ala Glu
            340                 345                 350
Glu Leu Pro Arg Arg Arg Pro Ser Ile Ser Lys Gln Ser Gly Arg Ser
        355                 360                 365
Ser Asn Asp Asp Arg Ser Asn Asp Leu Ser Leu Ile Thr Pro Glu Asn
    370                 375                 380
Arg Asn Asn Lys Ala Ser Val Ser Ile Pro Ser Arg His Ser Leu Arg
385                 390                 395                 400
Ser Pro Ala Asn Ser Lys Asp Glu Pro Ile Phe Leu Glu Ser Asp Ser
                405                 410                 415
Asp Gly Pro Arg Asp Ser Ala Thr Ala Val Pro Lys Ala His Ser Thr
            420                 425                 430
Asn Pro Ile His Ser Asp Lys Pro Thr Thr Arg Glu Glu Ser Ile Ala
        435                 440                 445
Arg Ala Lys Lys Glu Lys Asn His Arg Lys Arg Arg Ser Arg Arg Arg
```

```
    450                 455                 460
Lys Arg Ala Glu Arg Tyr Arg Glu Asn Leu Lys Asp Ser Gln Ile Gln
465                 470                 475                 480
Asn Leu Ala Ala Glu Asp Arg His Ile Glu Glu Asp Ala Thr Thr Asn
                485                 490                 495
Lys Phe Gly Gln Lys Asp Ser Gly Asp Ile Arg Leu Glu Lys Asp Val
            500                 505                 510
Leu Ile Leu Asp Asp Pro Phe Trp Ala Leu Asp Phe
        515                 520
```

<210> 36946
<211> 109
<212> PRT
<213> A.fumigatus

<400> 36946

```
Pro Phe Leu Gly Ser Gly Phe Leu Ser Thr Asp Asp Ser Gln Ser Val
1               5                   10                  15
Thr Ala Ser Asp Glu Val Thr Ser Lys Tyr Phe Thr Ser Pro Gln Gln
            20                  25                  30
Val Asp Gly Leu Ala Ser Ser Val Pro Ser Gln Ile Pro Thr Thr Tyr
        35                  40                  45
Phe Thr Ser Ser Val Arg Asp Tyr Glu Pro Ile Pro Glu Lys Ala Arg
    50                  55                  60
Gln Lys Tyr Asp Glu Val Gly Leu Ser Phe Asp Met Leu Ala Ser Asp
65                  70                  75                  80
Ser Glu Ser Asp Leu Ser Asp Val Gln Ser Asp Asp Gly His Leu Asp
                85                  90                  95
His Asp Ala Phe Leu Arg Asp Val Ile Gln Arg Pro Ser
            100                 105
```

<210> 36947
<211> 77
<212> PRT
<213> A.fumigatus

<400> 36947

```
Ser Phe Ile Asn Thr Thr Asn Lys Arg Thr Lys Lys Gly Glu Lys Trp
1               5                   10                  15
Ile Leu Ile Phe Asn Ser His Gly Ser Tyr Leu Thr Val Lys Phe Leu
            20                  25                  30
Gln Leu Tyr Lys Asp Asn Ser Ile Ile Leu Phe Arg Phe Leu Pro Tyr
        35                  40                  45
Thr Thr His Leu Tyr Gln Pro Leu Asp Gly Lys Pro Phe Leu Ser Tyr
    50                  55                  60
Lys Gln His Phe Tyr Tyr Ile Asn Asn Lys Leu Ser Tyr
65                  70                  75
```

<210> 36948
<211> 63
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (32)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36948

```
Leu Arg Asn Asn Arg Asn Ser Arg Lys Asp Ile Thr Phe Lys Ala Phe
1               5                  10                  15
Ile Ile Glu Met Ile Phe Phe Ile Lys Met Ala Gly Ser Arg Val Xaa
            20                  25                  30
Arg Pro Tyr Arg Leu Arg Leu Ser Leu Thr Lys Pro Leu Arg Arg Arg
        35                  40                  45
Gly Gln Leu Ile Tyr Ala Arg Phe Leu Lys Ala Met Glu Ser Ser
    50                  55                  60
```

<210> 36949
<211> 525
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (514)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36949

```
Leu Arg Asp Gly Val Leu Ala Gly Ser Asn Glu Gly Ser Lys Ser Asn
1               5                  10                  15
Leu Gln Arg Gly Glu Ser Leu Ile Phe Ser Cys Tyr Pro Cys Leu Pro
            20                  25                  30
Ala Leu Ser Leu Val Thr Ser Asp Ser Lys Lys Leu Leu Asn Ala Gln
        35                  40                  45
Arg Arg Lys Gly Asp Ile Arg Pro Ser Ser Thr Val Glu Leu Asp Leu
    50                  55                  60
His Ala Asp Pro Leu Gly Pro Gly Pro Val Thr Thr Ser Phe Leu Ser
65                  70                  75                  80
Phe Pro His Arg Arg Leu Ser Gln Pro Gly Thr Ser Gly Gly His Asp
                85                  90                  95
Asp Tyr Ala Glu Arg Asn Ser Val Val Ser Arg Leu Leu Arg Gly Leu
            100                 105                 110
Ala Gly Ser His Gly Gly Ser Phe Arg Asp Thr Asp Ala Asp Val Leu
        115                 120                 125
Pro Ser Pro Thr Asn Pro Thr Glu His Ser Asp Asn Leu Gln Glu Asp
    130                 135                 140
Arg Gly Gln Asp Trp Lys Ser Gln Gly Pro His Gln Pro Ser Glu Ala
145                 150                 155                 160
Arg Asp His Val Pro Ser Ile Gly Pro Arg Ala Ala Ser Gly Arg Leu
                165                 170                 175
Ile Glu Gln Leu Glu Ala Val Ser Ala Arg Arg Leu Arg Ala Arg Glu
            180                 185                 190
Met Arg Val Ala Leu Arg Tyr Lys Arg Glu Asp Glu Gly Lys His Arg
        195                 200                 205
Ala Ala Leu Met Lys Arg Leu Asn Leu Leu Leu Ala Gln Asp His Gln
    210                 215                 220
Leu Thr Asp Leu Ile Glu Gly Leu Glu Ser Ala Thr Glu Ser Tyr Leu
225                 230                 235                 240
Asp Leu Glu Gln Ala Tyr His Trp Met Glu Asp Glu Leu Asp Gln Asp
                245                 250                 255
Glu Tyr Ala Leu Ile Gln Ser Met Gln Arg Phe Ala Lys Ser Met Arg
```

```
            260                 265                 270
Glu Ser Pro Pro Gly Leu Ser Lys Ile Thr Ile Gln Ala Glu Cys Asn
        275                 280                 285
Ala Ser Asp Asp Ser Ala Arg Ser Leu His Asp Glu Pro Leu Glu Tyr
    290                 295                 300
Pro Pro Ala Val Phe Asp Tyr Leu Ser Arg Val Gly Asp Ala Arg Ile
305                 310                 315                 320
Leu Gln Glu Arg Leu Val Glu Leu Asp Ser Gln Trp Tyr Thr Ile Val
                325                 330                 335
Asp Lys Gln Arg Leu Arg Ser Ser Leu Asn Ile Ala Leu Asp Glu Glu
            340                 345                 350
Ser Leu Gln Phe Leu Arg Ser Tyr Asp Gly Ser Lys Thr Gln Ile Arg
        355                 360                 365
Lys Glu Leu His Glu Thr Ile Leu Asp Ile Val Arg Leu Gln Ala Leu
    370                 375                 380
Cys Asn Glu Gln Gly Leu Arg Pro Glu Glu Tyr Thr Gly Asp Met Asp
385                 390                 395                 400
Phe Pro Tyr Gly Met Gly Leu Gly Glu Val Ala Phe Gln Pro Glu Asp
                405                 410                 415
Pro Leu Lys Thr Ser Ala Ile Asp Asp Pro Ser Pro Phe Tyr Glu Ser
            420                 425                 430
Gly Pro Ala Lys Val Ser Ser Ala Met Phe Ile Asn Lys Trp Leu Leu
        435                 440                 445
His Gln Leu Arg His Ser Ser Val Glu Ile Ser Arg Leu Lys Ala Ala
    450                 455                 460
Pro Glu Leu Arg Gln Leu Ser Asp Glu Gly Trp Asp Asp Ala Asn Ile
465                 470                 475                 480
Ser Arg Leu Ala Leu Thr Met Trp Phe Ser Asp Asp Thr Val Arg Asn
                485                 490                 495
Ser Pro Gln Thr Leu Ser Gln Ala Asp Asp Tyr Asp Tyr Thr Gly Ala
            500                 505                 510
Ser Xaa Tyr Thr Thr Arg Lys Glu Ala Ile Ala Ser Ala
        515                 520                 525
```

<210> 36950
<211> 64
<212> PRT
<213> A.fumigatus

<400> 36950

```
Gln Leu Asn Ile Ser Asp Ser Pro Leu Cys Arg Leu Asp Leu Asp Pro
1               5                   10                  15
Ser Phe Asp Pro Ala Lys Thr Pro Ser Arg Asn Tyr Asn Arg Ser Gly
            20                  25                  30
Ser Gly Ser Phe Leu Tyr Ala Tyr Ile Phe Trp Ala Gln Glu Thr Glu
        35                  40                  45
Gln Lys Ser Glu Gln Lys Glu Ile Asp Cys Val Ser Lys Ser Val Ser
    50                  55                  60
```

<210> 36951
<211> 375
<212> PRT
<213> A.fumigatus

<400> 36951

```
Pro Gly Arg Glu Asp Phe Arg Arg Ser Leu Pro Arg Tyr Arg Thr Lys
```

```
1               5                   10                  15
Ile Ala Ser Gln Leu Arg Gln Ala Ala Leu Val Glu His Gln Pro Lys
            20                  25                  30
Gln Ile Pro Thr Arg Leu Ala Val Ser Ser Met Ile Ser Tyr Val His
        35                  40                  45
Asp Arg Ile Leu Thr Pro Glu Met Met Arg Ala Met Ile Ile Leu Tyr
    50                  55                  60
Ile Gly Pro His Asn Arg Pro Asp Phe Ser Thr Asp Phe Leu Leu Ser
65                  70                  75                  80
Pro Val Leu Ala Pro Glu Ser Leu Leu Thr Arg Phe Pro Lys Thr Tyr
                85                  90                  95
Phe Ile Thr Gly Glu Arg Asp Pro Leu Val Asp Asp Thr Val Ile Phe
            100                 105                 110
Ala Gly Arg Ile Arg Gln Ala Lys Leu His Gln Phe Arg Glu Arg Gln
        115                 120                 125
Glu Leu Gly Leu Glu Lys Ser His Arg Glu Phe Asn Glu Lys Asp His
    130                 135                 140
Val Glu Val Ser Leu Leu Pro Gly Val Ser His Gly Phe Leu Gln Met
145                 150                 155                 160
Ala Gly Phe Phe Pro Asp Ser Trp Lys His Ile Asn Lys Cys Ala Thr
                165                 170                 175
Trp Ile Gln Asn Leu Phe Asp Thr Asp Glu Val Lys Lys Ser Ser Ser
            180                 185                 190
Ser Leu Leu Gln Thr Leu Tyr Asp Thr Ser Val Asp Asn Lys Asn Leu
        195                 200                 205
Ala Ile Glu Thr Asn Gly Lys Ala Gly Pro Arg Asn His Lys Arg Ser
    210                 215                 220
Leu Thr Gly Glu Ser Ser Ala Asp Glu Asp Arg Pro Leu Glu Met Ser
225                 230                 235                 240
Ile Gly Arg Met Thr Pro Leu Thr Pro Ala His Gly Asn Leu Asp Ser
                245                 250                 255
Asn Glu Thr Arg Gln Ser Lys Glu Asp Met Pro Ser Gln Lys Pro Tyr
            260                 265                 270
Gln Phe Arg Arg Glu Ala Thr Ser Thr Ala Asp Cys Arg Pro Gly Ser
        275                 280                 285
Lys Asn Gly Ile Arg Asn Arg Ser Ser Ser Arg Gly Arg Lys Asp Ser
    290                 295                 300
Ser Ser Gly Leu Gly Arg Arg Arg Arg Leu Ala Pro Thr Lys Leu Thr
305                 310                 315                 320
Leu Pro Val Ser Asp Asp Met Ser Asp Asn Leu Glu Ser Pro Val Arg
                325                 330                 335
Leu Arg Lys Arg Glu Arg Ser Ile His Ser Leu Pro Ser His Glu Asp
            340                 345                 350
Leu Leu Asp Arg Arg Met Asn Gly Leu Ala Gly Gly Leu Met Gly Ile
        355                 360                 365
Gly Glu Gly Ala Gln Thr Pro
    370                 375
```

<210> 36952
<211> 382
<212> PRT
<213> A.fumigatus

<400> 36952

```
Leu Thr Pro Gly Trp Asp Ile Arg Val Tyr Ile Ser Ala Ile Leu Gly
1               5                   10                  15
```

```
Leu Ser Thr Met Val Val Ala Phe Ala Ser Ser Ile Phe Ser Ala Ala
            20                  25                  30
Met Pro Ala Val Met Gln Ile Tyr Gly Ile Ser Arg Glu Val Cys Thr
        35                  40                  45
Leu Gly Ile Ser Leu Tyr Val Phe Gly Phe Ala Phe Gly Pro Leu Ile
    50                  55                  60
Phe Gly Pro Phe Ser Glu Val Lys Gly Arg Tyr Met Pro Leu Ile Val
65                  70                  75                  80
Ser Met Phe Gly Phe Thr Ile Phe Ser Phe Ala Thr Ala Val Ser Lys
                85                  90                  95
Asp Leu Gln Ser Leu Phe Ile Leu Arg Tyr Phe Thr Gly Phe Phe Gly
            100                 105                 110
Ser Gly Pro Leu Thr Leu Ala Gly Ala Ser Phe Ala Asp Met Phe Ser
        115                 120                 125
Pro Glu Gln Arg Gly Ile Ala Ile Val Met Phe Cys Leu Met Val Phe
    130                 135                 140
Ile Gly Pro Leu Ala Ala Pro Phe Val Gly Gly Phe Thr Val Met Asn
145                 150                 155                 160
Ser Ser Leu Gly Trp Arg Trp Thr Ala Tyr Ile Pro Gly Ile Leu Gly
                165                 170                 175
Gly Ala Val Leu Leu Leu Leu Val Val Phe Leu Glu Glu Thr Tyr Gln
            180                 185                 190
Pro Val Ile Leu Ala Arg Lys Ala Asp Arg Leu Arg Arg Glu Thr Gly
        195                 200                 205
Asn Trp Ala Leu His Ala Lys His Asp Glu Leu Arg Leu Asp Pro Arg
    210                 215                 220
Ser Ile Leu Thr Glu Tyr Leu Ser Leu Pro Leu Lys Met Leu Val Leu
225                 230                 235                 240
Asp Pro Ile Val Thr Cys Met Cys Val Phe Ala Ser Phe Val Tyr Gly
                245                 250                 255
Leu Leu Tyr Leu Phe Leu Thr Ala Tyr Pro Thr Ile Phe Gln Lys Ile
            260                 265                 270
His Gly Met Asn Pro Gly Val Gly Gly Leu Pro Tyr Leu Gly Val Ile
        275                 280                 285
Val Gly Gln Leu Leu Gly Ala Val Gly Ile Ala Ala Thr Gln Pro Trp
    290                 295                 300
Val Leu Arg Lys Leu Glu Gln Asn Gly Gly Val Met Met Pro Glu Trp
305                 310                 315                 320
Arg Leu Pro Val Ala Ile Pro Gly Ala Val Ala Phe Ser Ala Gly Leu
                325                 330                 335
Phe Trp Leu Gly Trp Ser Gly Tyr Lys Gln Ser Ile His Trp Ile Val
            340                 345                 350
Pro Thr Leu Ser Gly Leu Leu Thr Gly Phe Gly Leu Leu Thr Met Phe
        355                 360                 365
Leu Pro Ser Leu Ala Tyr Leu Val Glu Ala Arg Pro Gln Lys
    370                 375                 380

<210> 36953
<211> 275
<212> PRT
<213> A.fumigatus

<400> 36953
Ile Ala Thr Ala Asp Pro Ser Ser Pro Val Val Lys Thr Ser Trp Asn
1               5                   10                  15
Lys Gly Thr Thr Pro Tyr Leu Trp Ala Leu Gln Lys Leu Val Arg Pro
```

```
            20                  25                  30
Arg Leu Thr Ser Tyr Gly Pro Arg Ala Ile Arg Ile Pro Arg Pro Lys
        35                  40                  45
Gln Ser Ile Tyr Thr Glu Pro Thr Asn Ala Trp Leu Tyr Phe Asp Gly
    50                  55                  60
Pro Leu Ser Ala Leu Lys Asp Gln Thr Cys Val Ile Leu Asp Ile Pro
65                  70                  75                  80
Gly Gly Gly Tyr Val Ala Met Asn Pro Arg Asn Ser Glu Asp Arg Leu
                85                  90                  95
Leu Ala Trp Ala Gly Lys Thr Lys Leu Pro Ile Leu Ser Leu Asp Tyr
            100                 105                 110
Lys Lys Ala Pro Glu Tyr Pro Tyr Pro Tyr Ala Leu Asn Glu Cys Tyr
        115                 120                 125
Asp Val Tyr His Met Ile Ile Thr Thr Arg Gly Arg Cys Leu Gly Leu
    130                 135                 140
Ser Gly Val Thr Arg Pro Arg Ile Val Val Thr Gly Asp Ser Ala Gly
145                 150                 155                 160
Gly Asn Leu Ala Val Gly Thr Val Leu Met Ile Leu Gln Ser Gly Thr
                165                 170                 175
Glu Asp Val Met Pro Arg Pro Asn Gly Leu Val Leu Ala Tyr Pro Ser
            180                 185                 190
Leu Asn Met Arg Val Glu Ser Trp Met Thr Glu Glu Gln Met Ser Leu
        195                 200                 205
Ile Gln Asp Lys Ser Ala Arg Arg Thr Asn Lys Asn Ile Leu Gln Arg
    210                 215                 220
Lys Asn Met Asp Tyr Gln Arg Leu Thr Pro Phe Ala Ser Pro Gly Pro
225                 230                 235                 240
Ser Thr Glu Glu Leu Arg Gln Glu Phe Leu Ser Asp Ala Gly Leu Glu
                245                 250                 255
Ala Gly Asp Leu Gly Glu Lys Thr Phe Glu Glu Ala Cys Arg Asp Ile
            260                 265                 270
Glu Pro Arg
        275

<210> 36954
<211> 136
<212> PRT
<213> A.fumigatus

<400> 36954
Val Ser Ser Arg Asn Thr Thr Arg Ser Ser Ser Thr Ala Pro Pro Arg
1               5                   10                  15
Ile Pro Gly Ile Tyr Ala Val Gln Arg Gln Pro Ser Glu Glu Phe Met
            20                  25                  30
Thr Val Lys Pro Pro Thr Lys Gly Ala Ala Arg Gly Pro Met Lys Thr
        35                  40                  45
Ile Lys Gln Asn Met Thr Met Ala Ile Pro Arg Cys Ser Gly Glu Asn
    50                  55                  60
Met Ser Ala Asn Asp Ala Pro Ala Ser Val Ser Gly Pro Glu Pro Lys
65                  70                  75                  80
Asn Pro Val Lys Tyr Arg Arg Met Asn Arg Asp Trp Arg Ser Leu Glu
                85                  90                  95
Thr Ala Val Ala Asn Glu Asn Ile Val Lys Pro Asn Ile Glu Thr Ile
            100                 105                 110
Ser Gly Met Tyr Leu Pro Leu Thr Ser Glu Lys Gly Pro Lys Ile Asn
        115                 120                 125
```

```
Gly Pro Asn Ala Asn Pro Lys Thr
    130                 135

<210> 36955
<211> 112
<212> PRT
<213> A.fumigatus

<400> 36955
Gly Ile Leu Ser Arg Ile Gln Pro Ser Ser Cys Leu Gly Lys Gly Lys
1               5                  10                  15
Val Ser Ala Asp Gly Arg Leu Val Ala Ser Ile Lys Ala Gly Asp Leu
            20                  25                  30
Thr Leu Phe Ser Glu His Leu Ser Pro Asp Gln Gly Ile Met Gln Thr
        35                  40                  45
Leu Tyr Ala Ser Pro Ala Asn Gly Ile Ser Thr Thr Gln Gln Ala Tyr
    50                  55                  60
Arg Pro Leu Gln Gly Glu Ile Ala Ile Lys Ser Gly Thr Asp Ala Val
65                  70                  75                  80
Pro Gly Gln Asp Arg Asn Val Tyr Thr Trp Phe Asp His Pro Phe His
                85                  90                  95
Arg Thr Gly Lys Asp Leu Ser Asn Val Met Gln Leu Trp Leu Arg Asp
            100                 105                 110

<210> 36956
<211> 197
<212> PRT
<213> A.fumigatus

<400> 36956
Asp Arg Leu Ser Ser Val Gln Tyr Asn Gly Lys Tyr Cys Thr Leu Leu
1               5                  10                  15
Thr Ser Leu Leu Ala Ser Gly Asn Phe Gly Thr Pro Ile Thr Ala Ala
            20                  25                  30
Leu Gln His Ala Gly Phe Thr Val Thr Ile Ile Thr Arg Ser Glu Ser
        35                  40                  45
Lys Ala Thr Phe Leu Pro Asp Ile Pro Val Ile Thr Thr Thr Tyr Thr
    50                  55                  60
Leu Glu Asn Leu Thr Ser Ser Leu Ala Gly Gln Asp Ala Ala Val Cys
65                  70                  75                  80
Val Val Gly Pro Gly Gly Ile Gly Ala Gln Val Thr Met Ile Asp Ala
                85                  90                  95
Ala Glu Ala Ala Gly Val Lys Arg Phe Ile Leu Asp Asp Phe Gly Trp
            100                 105                 110
Gly Asp Asn Pro Lys Ser Phe Pro Glu Phe Asn Ala Ile His Ala Gln
        115                 120                 125
Arg Arg Ala Gly Trp Asp His Ala Lys Ala Lys Ala Glu Ser Asn Pro
    130                 135                 140
Asn Phe Thr Tyr Thr Gly Ile Ser Ile Gly Asn Pro Ile Asp Trp Val
145                 150                 155                 160
Ser Asp Ser Thr Gly Ser His Thr Leu Ala Ser Gln Leu Thr Ser Ser
                165                 170                 175
Gln Gly Val Glu Ala Leu Pro Cys Asp Gly Val Arg Tyr Ser Ala Leu
            180                 185                 190
Leu Gly Arg His Leu
        195
```

<210> 36957
<211> 93
<212> PRT
<213> A.fumigatus

<400> 36957
Cys Ser Tyr Gly Ser Gly Thr Asp Asp Thr Pro Gly Pro Val Ile Pro
1 5 10 15
Phe His Gly Cys Cys Phe Glu Ile Leu Thr Arg Val Leu Thr Gly Ser
20 25 30
Thr Asp Ser Ser Thr Ile Asp Met Lys Val Leu Tyr Asn Val Met Thr
35 40 45
Glu Leu Ser Asn Glu Ser Ser Ser Ala Leu Arg Leu Asn Tyr Gly Asp
50 55 60
Asp Ile Arg Arg Ala Gln Gly Arg Tyr Trp Glu Cys Ile Pro Gly Ala
65 70 75 80
Glu Ala Ser Ser Asn Asp Gln Val Ala Ser Ser Ser Asn
85 90

<210> 36958
<211> 199
<212> PRT
<213> A.fumigatus

<400> 36958
Thr Met Ala Thr Thr Phe Gly Gly Arg Lys Ala Gly Thr Gly Ser Ala
1 5 10 15
Ser Pro Ala Gln Arg Gln Ala Ala Thr Ile Lys Ser His Arg Pro Gln
20 25 30
Thr Asp His Leu Gln Tyr Cys Thr Ile His Pro Thr Glu Thr Ser Gly
35 40 45
Trp Asp Asp Phe Leu Lys Thr Asp Met Thr Thr Asp Ser Lys Phe Lys
50 55 60
Arg Ser Phe Trp Gln Phe Asp Phe Lys Gly Arg Ser Pro Ala Ser Pro
65 70 75 80
Phe Gly Lys Leu Pro Leu Glu Leu Val Tyr Gln Ile Cys Ser Tyr Leu
85 90 95
Pro Gly Asp Ser Leu Lys Ala Leu Thr Gln Ala Ser Leu Ser Ile Gln
100 105 110
Val Val Thr Gln Asp Asn Trp Phe Trp Lys Arg Phe Ile Gln Trp Asp
115 120 125
Met Pro Trp Phe Trp Glu Phe Tyr Ser Ser Gln Asn Pro Arg Asp Leu
130 135 140
Pro Ala Asp Val Asn Tyr Lys Arg Leu Tyr Met Trp Leu Asp Lys Met
145 150 155 160
Thr Ala Ala Arg Tyr Gly Met Asp Asp Leu Ala Leu Ile Gly Val Ala
165 170 175
Asn Arg Arg Arg Ile Trp Gly Val Cys Glu Glu Leu Ala Ser Gln Tyr
180 185 190
His Lys Ala Val Ala Ala Ser
195

<210> 36959
<211> 68
<212> PRT

<213> A.fumigatus

<400> 36959
Leu Trp Ile Glu Ser Arg Val Pro Thr Gly Ser Val Ser Ser Gly Asp
1 5 10 15
Ala Met Glu Asp Glu Val Glu Ile Leu Thr Gly Asp Gly Val Ile Tyr
20 25 30
Leu Cys Ser Leu Asn Arg Val Glu Cys Ile Tyr Tyr Tyr Gln Ala Gln
35 40 45
Trp Ser His Leu Asp Ser Val Val Thr His Thr Gln Val Glu Asn Ser
50 55 60
Lys Arg Phe Arg
65

<210> 36960
<211> 61
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1),(2)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36960
Xaa Xaa Asp Val Ile Phe His Arg Ala Cys Arg Ala Phe Ile Leu Tyr
1 5 10 15
Arg Gln His Tyr Gln Ala Ala Val Val Ala Gln Asn Pro Gly Leu Ala
20 25 30
Asn Pro Asp Ile Ser Lys Ile Ile Gly Glu Gln Trp Arg Lys Leu Pro
35 40 45
Gln Glu Thr Lys Asp Glu Trp Lys Ala Leu Ala Glu Val
50 55 60

<210> 36961
<211> 496
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (445)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36961
Pro Ser Ser Gln Glu Glu Lys Ala Arg His Gln Gln Gln Tyr Pro Glu
1 5 10 15
Tyr Arg Tyr Gln Pro Arg Arg Tyr Gly Arg Asp Gly Asn Ser Arg Ala
20 25 30
Thr Gly Ser Gly Ile Ser His Ser Pro Pro Gly Ser Ala Val Cys Asn
35 40 45
Arg Cys Gly Gly Arg Val Met Thr Pro Pro Val Ser Pro Asp Ala Pro
50 55 60
Phe Thr Pro Ser Ala Ser Ala Ala Ser Pro His Pro Asp Met Val Met
65 70 75 80
Ala Arg Ser Tyr Gln Arg Arg Ala Arg Asp Ser Asp Arg Gln Pro Asn

```
                85                  90                  95
Pro Ile Arg Val Asp Asn His Gly Asp Ser Cys Pro Pro Arg Gln Ile
            100                 105                 110
Pro Tyr Glu Glu Ala Gly Cys Arg Ser Pro Asp Ser Lys Arg Arg Arg
        115                 120                 125
Phe Asn Ser Gln Val Asn Leu Lys Pro Asn Val His Arg Asp Arg Ser
    130                 135                 140
Pro Glu Ser Ala Tyr Pro Met Ser Pro Tyr Thr Pro Arg Thr Asp Gly
145                 150                 155                 160
Pro Asn Thr Arg Thr Leu Asn Gln Ile Val His Pro Ser Arg Thr Ala
                165                 170                 175
Arg Tyr Asn Arg Asp His Pro Pro His Asp Pro Ser Leu Lys Leu Pro
            180                 185                 190
Pro Leu Gln Thr Thr Val Pro Leu Pro Gly Ser Val Met Pro Ile Thr
        195                 200                 205
Pro Phe Pro His Asp Gly Leu Ser Leu Glu Ala Thr Val Met Thr Ile
    210                 215                 220
Pro Phe Leu Asn Lys Ile Lys Val Leu Ala Lys Ile Ser Pro Pro Leu
225                 230                 235                 240
Ile Pro Ser Phe Arg Asp Asn Ser Ile Pro Gln Arg Gly Val Val Ile
                245                 250                 255
Ala Val Asp Gly Gln Asp Pro Ala Gln Val Lys Ala Val Val Asp Tyr
            260                 265                 270
Leu Asn Ala Val Phe Gln Lys Glu Gly Lys Tyr Lys Pro Arg Val Phe
        275                 280                 285
Glu Gly Pro Glu Val Arg Ser Arg Glu Ser Tyr Ser Ala Ala Gly Gln
    290                 295                 300
Met Gly Asp Ala Thr Val Asp Tyr Leu Asn Thr Ile Ser Val Trp His
305                 310                 315                 320
Arg Ile Ser Asp Asp Ile Val Ser Phe Val Lys Pro Thr Arg Glu Pro
                325                 330                 335
Ser Glu Ser Lys Pro Glu Asp Asp Asp Ser Ala Ser Glu Ile Ser Pro
            340                 345                 350
Lys Thr Ile Ile Pro Lys Thr Ala Gly Leu Lys Ile Ser Ser Pro Ala
        355                 360                 365
Gln Ser Ser Glu Asn Gly Ser Glu Ser Ala Ser Ser Ile Ser Gly Ser
    370                 375                 380
Gly Leu Ser Pro Val Pro Ile Ala Leu Val Pro Arg Tyr Gln Leu Thr
385                 390                 395                 400
Asn Ala Asp Ala Phe Ala Cys Ser Val Pro Ile Asn Asp Ser Tyr Ala
                405                 410                 415
Pro Leu Asp His Trp Gln Trp Met Ala Ser Leu Trp Arg Ala Cys Val
            420                 425                 430
Gly Ala Asp Ile Thr Val Tyr Ile Arg Asp Cys Glu Xaa Asp Glu Leu
        435                 440                 445
Gly Arg Tyr Gly Gly Asn Pro Val Glu Val Arg Leu Gln Asp Ala Arg
    450                 455                 460
Thr Val Val Val Arg Arg Leu Ala Gly Ser Gln Lys Glu Leu Glu Glu
465                 470                 475                 480
Lys Ala Leu Lys Arg Val Cys Phe Glu Ile Glu Asp Phe Leu Thr Gln
                485                 490                 495
```

<210> 36962
<211> 98
<212> PRT
<213> A.fumigatus

<400> 36962
His Ser Thr Ile Phe Gln Val Tyr Val Pro Thr Val Phe Glu Asn Tyr
1 5 10 15
Val Ala Asp Val Glu Val Asp Gly Lys His Val Glu Leu Ala Leu Trp
20 25 30
Asp Thr Ala Gly Gln Glu Asp Tyr Asp Arg Leu Arg Pro Leu Ser Tyr
35 40 45
Pro Asp Ser His Val Ile Leu Ile Cys Phe Ala Ile Asp Ser Pro Asp
50 55 60
Ser Leu Asp Asn Val Gln Glu Lys Val Asn Asp Ser Pro Gly Val Pro
65 70 75 80
Phe Phe His Gln Gly Arg Lys Gly Glu Val Ile His Ala Arg Ile His
85 90 95
Arg Gly

<210> 36963
<211> 63
<212> PRT
<213> A.fumigatus

<400> 36963
Glu Phe Leu Asn Arg Ile Leu Trp Met Ser Ser Arg Thr Gly Asn Arg
1 5 10 15
Trp Ser Lys Leu Tyr Pro Pro Val Ser Ser Leu Asn Leu Ser Pro Lys
20 25 30
Tyr Cys Pro Phe Thr Leu Gly Arg Asp Leu Glu Leu Phe Ile Trp Gly
35 40 45
Ile Ser Phe Ser Asp Thr Ser His Val Ser Thr Asn Ile Ile Leu
50 55 60

<210> 36964
<211> 87
<212> PRT
<213> A.fumigatus

<400> 36964
Pro Lys Glu Thr Leu Gly Ile Val Ala Gly Gln Glu Leu Pro Arg Arg
1 5 10 15
Gly Arg Cys Met His Tyr Gly Lys Ser Tyr Arg Trp Phe Arg Tyr Phe
20 25 30
Pro Ser Leu Ser Cys Lys Phe Leu Ala Thr Ser Phe Thr Tyr Ser Phe
35 40 45
Asn Arg Phe Ser Cys Cys Ala Lys Val Phe Pro Cys Asp Lys Tyr Val
50 55 60
Ser Pro Ser Gln Glu Tyr Leu Pro Glu Phe Ala Thr Ala Ile Gly Cys
65 70 75 80
Asn Pro Ser Leu Ile Leu Asp
85

<210> 36965
<211> 75
<212> PRT
<213> A.fumigatus

<400> 36965
Val Pro Arg Arg Ser Asp Arg Ser Ser Lys Arg Thr Cys Lys Ser His
1 5 10 15
Asp Leu Val Ser Thr Tyr Ile Ser Ser Gly Gly Asn Thr Phe Leu His
20 25 30
Leu Leu Val Val Ser Val Gln Glu Asn Lys Ser Thr Ala Pro Arg Thr
35 40 45
Ala Val Tyr Ala Val Gln Phe Ser Ser Glu Lys Gln Glu Ala Val Ser
50 55 60
Gly Lys Glu Glu Arg Val Pro Gly Thr Arg Phe
65 70 75

<210> 36966
<211> 345
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (40)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 36966
Leu Ser Thr Cys His Ser Gly Leu Gly Met Glu Pro Val Thr Pro Val
1 5 10 15
Thr Cys Lys Thr Met Pro Lys Phe Pro Asn His Ile Met Gln Met Gly
20 25 30
Ser Cys Ser Asn His Gln Gln Xaa Gly Leu Asp Phe Asp Ile Ile Tyr
35 40 45
Gly Pro Val Val Val Glu Val Met Ile Lys Leu Phe Phe Thr Pro Ile
50 55 60
Ala Val Arg Tyr Leu Glu Val Glu Gln Ala Gly Met Val Thr Ala Tyr
65 70 75 80
Leu His Ala Phe Leu Glu Lys Cys Ala Ile His Met Arg Gln Pro Thr
85 90 95
Gly Ser Glu Gln Lys Trp Asn Ala Cys Lys Val Leu Lys Ala His Tyr
100 105 110
Arg Leu Arg Gln Ser Ala Phe Leu Trp Asp Glu Lys Phe Asp Asp Arg
115 120 125
Ile Ala Leu Ile Gly Phe Lys Arg Val Val Glu Asp Pro Cys Val Tyr
130 135 140
Gln Arg Gly Asp Asp Asp Asp Ala Phe Leu Leu Ile Tyr Val Asp Asp
145 150 155 160
Thr Leu Leu Thr Ser Ala Thr Thr Ala Gly Ile Lys Arg Ile Lys Ser
165 170 175
Trp Leu Gly Ser Leu Phe Leu Leu Glu Ala Leu Pro Ala Gly Arg Arg
180 185 190
Pro Thr Ile Val Arg Gly Trp Gln Pro Leu Ser Asp Ser Phe Val Ala
195 200 205
Val Arg Ser Leu Ser Ser Arg Tyr Leu Ala Ile Leu Ser Leu Ser Ser
210 215 220
Phe Leu Phe Ser Ser Met Thr Trp Arg Val Val Asn Asp Leu Pro Leu
225 230 235 240
Lys Thr Met Pro Arg Phe Asp Cys Gly Arg Asn Cys Val Leu Arg Leu
245 250 255
Arg Ala Arg Ser Ser Pro Leu Glu Ala Gly Ala Pro Ala Phe Arg Cys

```
            260                 265                 270
Ser Val His Arg Leu Val Ser Lys Arg Ala His Gly Pro Asp Gly Arg
        275                 280                 285
Glu Ser Ala Ile Thr Gly Arg Ser Ser Ser His Val Ser Asn Gly Asn
    290                 295                 300
Asp Trp Ile Arg Val Leu Phe Ser Arg Ala Phe Tyr Leu Ala Gln Glu
305                 310                 315                 320
Thr Thr Leu Gln Leu Ala Ile Gly Leu Tyr Tyr Thr Ser Ser Lys Ser
                325                 330                 335
Tyr Arg Arg Asp Ala Thr Met Thr Cys
            340                 345
```

<210> 36967
<211> 205
<212> PRT
<213> A.fumigatus

<400> 36967

```
Met Gly Arg Pro Gly Gln Gln His Arg Pro Gln Tyr Pro Ala Gln Thr
1               5                   10                  15
Pro Asn Gly Gln Thr Pro Ala Ile Lys Gln Glu Pro Gly Tyr Ser Ser
            20                  25                  30
Ala Pro Gln Pro Asn Met Thr Asn Ser Gln Thr Asp Gly Ala Gly Ala
        35                  40                  45
Asp Ala Leu Ser Asp Trp Lys Ala Glu Val Ala Arg Arg Arg Glu Ala
    50                  55                  60
Ala Glu Arg Gln Asn Gly Glu Gly Asp Arg Phe Leu Arg Glu His Leu
65                  70                  75                  80
Arg Gln Arg Met Leu Gln Phe Glu Gly Gly Gly Leu Leu Met Pro Leu
                85                  90                  95
Asp Glu Arg Gln Ser Ser Ser Ser Thr Ser Arg Arg Glu Arg His Leu
            100                 105                 110
Thr Asp Ala His Ser Ala Val Gly Ile Asn Ser Ile Ala Asn Ser Ala
        115                 120                 125
Gln Pro Gln Ala Gln Phe Asp Gly Pro Gly Gly Asp Asp Asp Arg Glu
    130                 135                 140
Glu Asp Asp Glu Asp Ala Ile Asn Ser Asp Leu Asp Asp Pro Asp Asp
145                 150                 155                 160
Leu Val Ala Glu Asp His Asp Ala Glu Asp Ser Val Gly Gln Val Met
                165                 170                 175
Leu Cys Thr Tyr Asp Lys Val Gln Arg Val Lys Asn Lys Trp Lys Cys
            180                 185                 190
Thr Leu Lys Asp Gly Ile Leu Thr Thr Gly Gly Lys Glu
        195                 200                 205
```

<210> 36968
<211> 104
<212> PRT
<213> A.fumigatus

<400> 36968

```
His Gly His Asn Asn Gln Gln Leu His Asp Asn Ala Asp Gly Thr Phe
1               5                   10                  15
Ser Ile Val Asn Pro Glu Thr Ser Thr Pro Tyr Pro Gly Thr Leu Gly
            20                  25                  30
Met Glu Lys Glu Lys Pro Tyr Arg Cys Glu Val Cys Gly Lys Arg Tyr
```

```
        35                  40                  45
Lys Asn Leu Asn Gly Leu Lys Tyr His Lys Ser His Ser Pro Pro Cys
    50                  55                  60
Asn Pro Asp Phe Gln Leu Ala Ala Gly Arg Asn Leu Ala Phe Gly Gly
65                  70                  75                  80
Gly Val Met Gln Gly Gln Asn Ile Asn Val Ala Gly Ala Gly Leu Pro
                85                  90                  95
Gly Ile Gly Glu Glu Gly Leu Leu
            100
```

<210> 36969
<211> 390
<212> PRT
<213> A.fumigatus

<400> 36969

```
Leu Asp Leu Pro Val Arg Phe Arg Pro Ser Pro Ser Phe His Ser Ser
1               5                   10                  15
Ser His Leu Pro Lys Leu Glu Ala Asn Phe Met Arg Asp Phe Ser Cys
            20                  25                  30
Cys Gly Ile Thr Leu Pro Thr Leu His Asp Leu Leu Gln His Tyr Glu
        35                  40                  45
Glu Ala His Ala Thr Lys Ser Pro Gln Gln Ser His Arg Pro Ser Gln
    50                  55                  60
Thr Asp Gly Arg Ala Ala Leu Ala Ala Ala Ala Met Ala Gln Gln Gln
65                  70                  75                  80
Asn Gln Gln Met Asn Asn Gln Ser Arg Gly Leu Gln Ala Asp Arg Gly
                85                  90                  95
Gly Asp Leu Gln Arg Lys Leu Ser Pro Asn Pro Gln Leu Gln Pro His
            100                 105                 110
Ser Asp Leu Asp Thr Ile Asp Asp Met Glu Leu Asp Asp Ala Met Gly
        115                 120                 125
Asp Ser Asp Pro Thr Thr Ser Gln Leu Phe Ser Ser Gln Thr Gln Asn
    130                 135                 140
Asn Thr Gln Asn Gly Phe Gly Asn Ser Asn Gln Arg Gly Pro Gln Leu
145                 150                 155                 160
Asn Leu Ser Met Leu Pro Ser His Gln Gly Phe Lys Gly Ser Gln Pro
                165                 170                 175
Gly Thr Pro Val Pro Ser Gly His Pro Leu Ser Leu Gln Asn Asn Pro
            180                 185                 190
Thr Val Ser Ser Val Asn Thr Pro Thr Leu Met Ala Asn Pro Leu Gln
        195                 200                 205
Asn Ser Gln Phe Arg Asn Thr Pro Asp Ser Ser Ala Pro Gly Thr Pro
    210                 215                 220
Ala Glu Leu Asp Glu Asn Val Ile Ser Gly Phe Gly Asp Leu Gly Met
225                 230                 235                 240
Gln Asn Asn Ala Leu Leu Gln Gly Gln Ser Gln Phe Arg Phe Ala Gly
                245                 250                 255
Asn Asn Asp Met Val Asp Leu Cys Ile Asp Glu Pro Ala Lys Arg Leu
            260                 265                 270
Phe Ser Pro Thr Gly Gly Ile Asn Thr Ser Asn Ala His Phe Lys Leu
        275                 280                 285
Ser Gly Ala Gln Tyr Gly Pro Asn Ser Glu Ile Ala Arg Arg Ile Arg
    290                 295                 300
Glu Gln Gln Leu Leu Ala Gly Val Pro Asp Thr Thr Ala Leu Leu Pro
305                 310                 315                 320
```

```
Asn Glu Glu Pro Lys Pro Phe Arg Cys Pro Val Ile Gly Cys Glu Lys
                325                 330                 335
Ala Tyr Lys Asn Gln Asn Gly Leu Lys Tyr His Lys Ala Val Ser Asp
            340                 345                 350
Ser Val Trp Lys Val Thr Val Trp Tyr Gly Ala Leu Val Ala Asn Ala
        355                 360                 365
Phe Ala Cys Ser Met Val Thr Thr Ile Asn Asn Cys Met Ile Thr Gln
    370                 375                 380
Met Val Leu Ser Arg Leu
385                 390
```

<210> 36970
<211> 78
<212> PRT
<213> A.fumigatus

<400> 36970

```
Asp Asn Ser Pro His Gln Ser Ile Ala Ala Phe His Arg Ala Phe His
1               5                   10                  15
Arg Asp Ile Ser Ser Leu Glu Leu Glu Met Asn Asp His Asp Arg Phe
            20                  25                  30
Ser Gln Ser Ser Tyr Gly Asp Pro Arg Tyr Leu Ser Ser Ala Ser Phe
        35                  40                  45
Glu Ala Pro Pro Ala Lys Val Leu Met Asn Gly Tyr Arg Glu Thr Phe
    50                  55                  60
Glu Pro Gln Tyr Ala Glu Lys Leu Arg Tyr Asn Pro Val Arg
65                  70                  75
```

<210> 36971
<211> 142
<212> PRT
<213> A.fumigatus

<400> 36971

```
Leu Pro Ser Ala Pro Ser Phe Ala Val Trp Ser His Gly Ile Ser Val
1               5                   10                  15
Asp Leu Ser Val Ser Gln Ala Ser Lys Met Pro Ala Gly His Tyr Ala
            20                  25                  30
Ala Asp Ser Gln Asp Gly Ile Leu Ser Pro Asp Pro Leu Ser Met Val
        35                  40                  45
Thr Val Tyr Lys Val Tyr Lys Arg Arg Phe Trp Gly Leu Ala Gln Leu
    50                  55                  60
Val Leu Leu Asn Ile Val Val Ser Trp Asp Val Ser Ala Leu Phe Glu
65                  70                  75                  80
Gln Gln Thr Gln Ser Gln Asn Leu Ala Asn Val Tyr Met Ile Leu Arg
                85                  90                  95
Asn Ser Val Ala His Leu Phe Phe Tyr Ile His His Arg Ile Ala Ala
            100                 105                 110
Phe Trp Cys Leu Arg Ile Arg His Gln Leu Val Glu His Trp Leu Ser
        115                 120                 125
Leu Cys Leu Leu Arg Ser Gln Ser Ser Arg His Pro His Ser
    130                 135                 140
```

<210> 36972
<211> 78
<212> PRT

<213> A.fumigatus

<400> 36972
Thr Val Arg Asn Tyr Ser Ala Asp Glu Thr Val Val Leu Cys Asp Val
1 5 10 15
Leu Thr Gln Pro Ile Gly Ser Met Lys Ile Ala Ser Gly Ala Glu Tyr
20 25 30
Leu Ile Pro Gln Val Ala Ser Glu Asp Ser Val Ser Ser Leu Ile Tyr
35 40 45
Pro Thr Val Asp His Thr Arg Pro Leu Gly His Phe Ile Trp Ser Val
50 55 60
Val Asp Ser Glu His Val His Tyr Gln Tyr Ile Thr Thr Tyr
65 70 75

<210> 36973
<211> 69
<212> PRT
<213> A.fumigatus

<400> 36973
Glu Thr Gln Trp Leu Thr Phe Ser Ser Ile Ser Thr Thr Ala Ser Gln
1 5 10 15
His Phe Gly Val Ser Glu Ser Ala Ile Asn Trp Leu Ser Thr Gly Tyr
20 25 30
Leu Phe Ala Phe Cys Val Ala Ser Pro Val Val Ile Leu Thr Leu Asn
35 40 45
Lys Gly Gly Pro Lys Pro Ala Ile Thr Ile Thr Ser Ala Ser Ser His
50 55 60
Ala Pro Gly Arg Arg
65

<210> 36974
<211> 124
<212> PRT
<213> A.fumigatus

<400> 36974
Asn Thr Arg Asp Phe Pro Gly Asp Lys Trp Arg Lys Val Cys Gly Lys
1 5 10 15
Glu Ile Ser Phe Gln Gly Ala Glu Asp Pro Arg Val Arg Arg Asn Leu
20 25 30
Leu His Phe Gly Lys Lys Gly Trp Gly Glu Thr Asn Pro Val Ser Gly
35 40 45
Ser Arg Pro Arg Arg Val Ile Arg Glu Asn Leu Pro Pro Ala Leu Glu
50 55 60
Arg Arg Leu Asn Thr Pro Lys Asp Arg Leu Asn Pro Trp Ala Thr Phe
65 70 75 80
Ser Gly Glu Met Glu Asn Pro Gly Gly Gly Gly Ala Ile Cys Arg His
85 90 95
Phe Phe Gly Arg Glu Arg Gly Lys Leu Ala Glu Arg Ile Pro Leu Phe
100 105 110
Arg Gly His Thr Ala Val Val Leu Asp Thr Asp Trp
115 120

<210> 36975
<211> 158

<212> PRT
<213> A.fumigatus

<400> 36975
Phe Leu Arg Arg Lys Ile Gly His Val Leu Phe Asn Pro Ala Ala Glu
1 5 10 15
Asn Ile Leu Ala Thr Ala Ser Gly Asp Phe Thr Val Lys Ile Trp Asp
20 25 30
Ile Glu Ala Gly Ala Ser Lys Leu Thr Leu Asn Leu Gly Asp Ile Val
35 40 45
Gln Ser Gln Ala Trp Ser Ala Asn Gly Ser Leu Leu Val Thr Thr Ser
50 55 60
Arg Asp Lys Lys Leu Arg Ile Trp Asp Val Arg Gln Glu Arg Pro Ala
65 70 75 80
His Glu Thr Gln Gly His Ser Gly Ala Lys Asn Ser Arg Val Val Trp
85 90 95
Leu Gly Glu Arg Asp Arg Val Ala Thr Thr Gly Phe Ser Lys Met Ser
100 105 110
Asp Arg Gln Leu Ala Leu Trp Asp Ile Arg Ala Pro Arg Glu Pro Ile
115 120 125
Asn Gly Phe Lys Thr Leu Asp Ser Ile Ser Gly Val Cys Met Pro Phe
130 135 140
Trp Asp Asp Gly Thr Gln Cys Leu Tyr Leu Ala Gly Arg Gly
145 150 155

<210> 36976
<211> 83
<212> PRT
<213> A.fumigatus

<400> 36976
Ser Lys Gln Ala Ser Pro Val Val Pro Glu Arg Ser Thr Pro Thr Val
1 5 10 15
Pro Thr Pro Thr Thr Thr Thr Pro Pro Pro Ser Ala Gly Ser Thr Leu
20 25 30
Gln Ala Gly Ala Ala Val Ala Ala Asp Ala Val Gln Arg Glu Val Ser
35 40 45
Ala Ile Lys Asp Leu Leu Ala Glu Gln Thr Lys Ile Ile Ala Ser Gln
50 55 60
Ala Glu Gln Met Gln Asn Leu Thr Ala Glu Ile Glu Ser Leu Lys Ala
65 70 75 80
Lys Leu Gly

<210> 36977
<211> 435
<212> PRT
<213> A.fumigatus

<400> 36977
Trp Phe Pro Ala Gly His His Leu Ser Arg Gln Glu Ala Ala Asp Leu
1 5 10 15
Gly Cys Ser Ser Gly Ala Thr Arg Ser Arg Asn Pro Arg Thr Leu Gly
20 25 30
Cys Lys Glu Gln Ser Cys Cys Met Ala Gly Arg Ala Arg Ser Arg Cys
35 40 45

```
Asp Asn Trp Phe Leu Gln Asp Glu Arg Ser Pro Ala Gly Ala Leu Gly
    50                  55                  60
Tyr Ser Cys Pro Ser Arg Thr His Gln Arg Leu Gln Asp Ser Arg Leu
65                  70                  75                  80
Asp Leu Trp Cys Leu His Ala Val Leu Gly Arg Trp His Pro Val Pro
                85                  90                  95
Val Ser Gly Trp Gln Arg Val Ser Gly Asp Ser Phe Thr Met Phe Ser
            100                 105                 110
Arg His Gly Ser Val Leu Ile Thr Thr Ser Asp Gly Asn Ile Arg Tyr
        115                 120                 125
Phe Glu Leu Glu Asn Asp Lys Phe Glu Phe Leu Ala Glu Tyr Lys Ser
    130                 135                 140
Ala Asp Pro Gln Arg Gly Ile Ala Phe Met Pro Lys Arg Gly Val Asn
145                 150                 155                 160
Pro His Glu Asn Glu Val Thr Arg Ala Phe Lys Thr Val Asn Asp Ser
                165                 170                 175
Tyr Ile Glu Pro Ile Ser Phe Ile Val Pro Arg Arg Ser Glu Asn Phe
            180                 185                 190
Gln Asp Asp Ile Tyr Pro Pro Thr Val Gly Leu Lys Pro Ala Met Gly
        195                 200                 205
Pro Ser Glu Trp Phe Ala Gly Lys Glu Ala Ile Pro Pro Lys Ile Ser
    210                 215                 220
Met Ala Ser Val Tyr Glu Gly Glu Gly Leu Lys Glu Val Thr Gly Val
225                 230                 235                 240
Gln Glu Gln Pro Thr Pro Thr Thr Ser Ala Pro Glu Pro Lys Pro Ala
                245                 250                 255
Glu Pro Val Ala Ala Lys Lys Val Ala Glu Pro Val Pro Thr Pro Ala
            260                 265                 270
Pro Val Val Lys Pro Glu Val Ser Met Lys Glu Gln Gly Ala Ser Met
        275                 280                 285
Ala Ala Met Val Asn Lys Phe Ala Asp Lys Glu Asp Asp Ala Glu Pro
    290                 295                 300
Val Asp Asp Asp Ser Ser Phe Glu Glu Ile Pro Lys Pro Thr Glu Arg
305                 310                 315                 320
Ala Ala Arg Ser Ala Asp Asn Ala Ser Pro Ser Ile Lys Thr Ser Pro
                325                 330                 335
Trp Gln Gln Lys Glu Glu Ala Lys Ser Gln Ala Ser Pro Ala Pro Val
            340                 345                 350
Ser Leu Phe Pro Leu Asn Pro Pro Gln Pro Arg Thr Asn Gln Asn Arg
        355                 360                 365
Pro Leu Pro Ser Ser Pro Asn Glu Ala Pro Leu Pro Cys Pro Pro Leu
    370                 375                 380
Pro Pro Gln Leu Pro Leu His Gln Gln Ala Arg Leu Phe Arg Leu Ala
385                 390                 395                 400
Pro Leu Leu Pro Arg Thr Pro Ser Ser Ala Arg Ser Arg Pro Ser Lys
                405                 410                 415
Thr Cys Ser Gln Ser Lys Pro Arg Ser Leu His Pro Arg Arg Ser Arg
            420                 425                 430
Cys Arg Thr
        435
```

<210> 36978
<211> 126
<212> PRT
<213> A.fumigatus

<400> 36978
Ser Arg Arg Lys Ser Arg Arg Ile Ser Val Thr Asp Lys Glu Ser Leu
1 5 10 15
Leu Ala Met Tyr Gly Ser His Ser His Ser His Ser Thr Gly Pro Pro
20 25 30
His Ser Ser Pro Ser Gln Pro Glu Trp Arg Leu Pro Ala Thr Thr Gln
35 40 45
His Gln His Ser Ser Trp Ser Ala Gly Ser Val Ala Pro Pro Pro Pro
50 55 60
Pro Ser Pro Ser Ala Pro Thr Ala Ala Pro Pro Tyr His Pro Asn Thr
65 70 75 80
Tyr Gly Ser Ile Ser Asn Ile Ser Pro Gly Thr Gly Gly Ala Pro Val
85 90 95
Phe Gly Ala Pro Ser Gly Pro Asn Thr Thr Ser Trp Gly Val Arg Tyr
100 105 110
Lys His Gln Val Leu Ala Pro Pro Pro Leu Pro Val Ser Ile
115 120 125

<210> 36979
<211> 153
<212> PRT
<213> A.fumigatus

<400> 36979
Ser Cys Ala Ser Ser Val Thr Asp Ser Arg Leu Pro Trp Pro Ser Gln
1 5 10 15
Ala Ser Thr Thr Thr Ser Ser Trp Val Arg Leu Thr Ala Ser Val Leu
20 25 30
Arg Glu Ser Ser Ala Val Asp Asn Arg Arg Phe Thr Ser Ile Pro Ala
35 40 45
Ser Tyr Cys Ala Ser Thr Ala Ser Pro Ser Thr Ser Ala Asn Ser Pro
50 55 60
Glu Leu Pro Asp Ser Thr His Thr Val Arg Gln Pro Asp Met Ala Thr
65 70 75 80
Ala Glu Pro Pro Cys Leu Arg Arg Ile Ser Leu Gln Ser Asn Ser Ser
85 90 95
Gly Ile Val Leu Leu Ser Leu Ser Thr Cys Asp Arg Thr Gln Leu Arg
100 105 110
Ala Ser Ser Lys His Glu Ser Ser Thr Ser Arg Pro Thr Ala Ser Ala
115 120 125
Cys Arg Ala Thr Leu Val Pro Asp Leu Ala Lys Arg Ala Trp Asn Arg
130 135 140
Ser Ala Ser Thr Thr Gln Asp Trp Ser
145 150

<210> 36980
<211> 793
<212> PRT
<213> A.fumigatus

<400> 36980
Pro Arg Phe Pro Ser Val Thr Glu His Gln His His Asn Pro Ala Gln
1 5 10 15
Val Arg Ser Pro Thr Leu Gly Ser Pro Gly His His Lys Pro Pro Pro
20 25 30
Pro Pro Pro Pro Gly Tyr Gly Ser Gln Pro Pro Ser Phe Glu Asn His

```
        35                  40                  45
Gln Gln Trp Thr Thr Gly Ala Ser His Pro Ser Gln Gln Ala Thr Ala
    50                  55                  60
Pro Leu Pro Pro Pro Pro Pro Pro Pro Pro Ile Pro Gln Ser Tyr Gln
65                  70                  75                  80
Thr Gln Pro Thr Pro Leu Asp Asn Gln Thr Trp Gln Gln Pro Asn His
                85                  90                  95
Pro Ala Tyr Ala Gly Phe Pro Ser Ser Gln Thr Leu Gln Val Ser Ser
            100                 105                 110
Tyr Ser Ala Ser Ala His Ala Thr Glu Pro Ser Ser Gly Leu Pro Gln
        115                 120                 125
Ser Met Ser Pro Pro Pro Pro Ala Arg Gln Leu Pro Pro Ala Glu Gln
    130                 135                 140
Pro Trp Ser Gln Thr Leu Pro Asn Glu His Gly Thr Ala Pro Pro Val
145                 150                 155                 160
Pro Pro Lys Thr Gly Pro Asn Val Phe Pro Ala Asn His Gly Leu Gly
                165                 170                 175
Pro Gly Thr Pro Ser Asp Trp Glu Tyr Leu Ala Ser Thr Pro Gly Ala
            180                 185                 190
Gly Val Gly Val Glu Thr Pro Glu Arg Lys Gln Asn His Pro Ile His
        195                 200                 205
Ser Ser Thr Val Pro Asp Ser Leu Pro Ser Gln Pro Ala Ser Phe Thr
    210                 215                 220
Pro Glu Ser Ser Asn Gln His Thr Val Ser Thr Pro Pro Thr Thr Thr
225                 230                 235                 240
Ser Pro Ser Ala Gln Pro Ala Tyr Pro Gln Gln His His Asp Ser Gly
                245                 250                 255
Ser Pro Val Ser Pro Ser Thr Thr Pro Asp Met Arg Asp Pro Pro Arg
            260                 265                 270
Pro Val Arg Val Asn Ser Ser Gly Thr Glu Cys Ser Ile Val Ser Ala
        275                 280                 285
Thr Glu Ala Ser Glu Ser Ile Asp Gly Val Ile Glu Ala Trp Asn Gln
    290                 295                 300
Pro Ile Thr Ala Gln Ile Lys Ser Thr Val Glu Glu Ser Arg Glu Ser
305                 310                 315                 320
Leu Ala Ser Gly Pro Glu Thr Arg Ser Ser Thr Gln Gly Ser Ser Pro
                325                 330                 335
Val Asp Ile Thr Gln Gln Lys Gln Glu Phe Lys Val Pro Arg Lys Glu
            340                 345                 350
Val Pro Ser Arg Ser Ala Thr Pro Ala Ser Ser Ser Ala Ala Gly Glu
        355                 360                 365
Thr Ser Gly Gly Arg Pro Asn Thr Ala Ser Pro Gln Pro Lys Pro Gln
    370                 375                 380
Asp Pro Tyr Glu Asp Leu Asp Ser Trp Ser Lys Ser Ser Leu Ala Arg
385                 390                 395                 400
Tyr Val Ala Met Leu Arg Lys Glu Glu Val Ala Asp Ser Asp Glu Glu
                405                 410                 415
Arg Phe Lys Ile Phe Thr Ala Phe Met Ala Lys Glu Thr Lys Leu Arg
            420                 425                 430
Glu Ile Leu Tyr Asn Ile Glu Pro Glu Gln Asn Lys Asn Gln Asp Gly
        435                 440                 445
Pro Gln Ser Leu Pro Asn Arg His Asp Ser Thr Ser Pro Pro Val Glu
    450                 455                 460
Ser Gly Leu Ile Pro Val Gln Ser Ala Glu Gly Tyr Asp Ala Glu Ile
465                 470                 475                 480
Ala Ser Asn Asp Ala Leu Gly Glu Ser Arg Asp Gly Arg Tyr Ser Pro
```

```
                485                 490                 495
Gly Gly Arg Pro Ile Leu Pro Gln Leu His Pro Pro Gln Thr Ser Gly
            500                 505                 510
Leu His Arg Ser Ala Ser Gln Pro Asn Thr Phe Lys Ala Lys Val Thr
        515                 520                 525
Arg Asp Phe Ser Ser Ser Ala Gln Asn Pro Ile Ser Arg Ala Thr Ser
    530                 535                 540
Val Pro Pro Ser Met Asn Asp Lys Thr Phe Ser Pro Leu Ala Thr Asn
545                 550                 555                 560
Pro Pro Gln Pro Ile Tyr Thr Pro Phe Arg Tyr Thr Glu Gly Pro Gln
                565                 570                 575
Arg Gly Ser Asp Asp Leu Thr Phe Asp Arg Pro Ala Tyr Gln Ala Tyr
            580                 585                 590
Ser Ala Leu Arg Gln Ala Ser Ala Glu Ser Gly Arg Val Met Ser Asn
        595                 600                 605
Ala Pro Asn Ala Pro Asn Arg Asn Arg Ser Ser Thr Val Thr Ser Ser
    610                 615                 620
Val Ala Gln Lys Asp Phe Asp Glu Thr Phe Ile Gly Leu Ile Arg Glu
625                 630                 635                 640
Lys Ser Val Ala Tyr Arg Asn Lys Thr Ser Pro Arg Ala Ser Ser Pro
                645                 650                 655
Pro Pro Leu Pro Ala Ala Phe Thr Gln Gly Lys Ser Gly Ser Pro Ile
            660                 665                 670
Asp Asp Leu Arg Ser Met Val Ser Ser Pro Leu Ala Lys Gln Ser Glu
        675                 680                 685
Ser Leu Trp His Val Thr Thr Arg Arg Asp Leu Glu Lys Tyr Ser Asp
    690                 695                 700
Asp Phe Asn Tyr Ile Arg Glu Ala Val Asn Thr Trp Glu Ala Ser Thr
705                 710                 715                 720
Lys Ala Arg Arg Glu Lys Thr Asp Arg Glu Arg Thr Arg Arg Gln Glu
                725                 730                 735
Glu Ser Glu Lys His Ile Asp Asp Leu Phe Asn Gln Lys Glu Ile Gly
            740                 745                 750
Tyr Ala Asp Ile Asn Phe Leu Glu Glu Glu Phe Arg Gln Asn Glu Ala
        755                 760                 765
Arg Val Gln Leu Asp Glu Glu Gln Thr Gly Val Gly Ser Ser His Thr
    770                 775                 780
Gly Leu Glu Gly His Ala Ile Gly Val
785                 790
```

<210> 36981
<211> 65
<212> PRT
<213> A.fumigatus

<400> 36981

```
Gly Gln Thr Leu Pro Arg Phe Leu Asp Ser Gly Phe Asp Leu Cys Ser
1               5                   10                  15
Asp Arg Leu Ile Pro Ser Phe Asp Asn Ala Ile Asp Thr Phe Arg Arg
            20                  25                  30
Phe Ser Arg Arg Asp Asn Thr Ala Phe Gly Ala Ala Thr Ile Tyr Pro
        35                  40                  45
Asn Arg Thr Gly Arg Ile Thr His Ile Arg Arg Ser Ala Trp Thr Asn
    50                  55                  60
Trp
65
```

<210> 36982
<211> 766
<212> PRT
<213> A.fumigatus

<400> 36982
Gln Val Arg Phe Leu Trp Ala Thr Leu Leu Leu Asp Cys Ile Cys Met
1 5 10 15
Glu Gln Thr Asp Glu Ala Ile Leu Gln Ala Leu Glu Ser Leu Pro Gln
20 25 30
Ser Leu Ser Glu Thr Phe Arg Arg Val Leu Gln Gln Thr Gly Val Ser
35 40 45
Asn Ile Gln His Arg Arg Arg Ile Val Gln Leu Val Met Ala Ala Arg
50 55 60
Arg Pro Leu Ser Val Gly Glu Leu Cys Glu Ala Leu Ser Val Ile Pro
65 70 75 80
Gly Asp Thr Ala Trp Glu Pro Ala Arg Gln Ile Asn Asn Ile His Ala
85 90 95
Ala Leu Ala Ser Cys Lys Cys Leu Ile Ile Ile Asp Glu Glu Glu Gln
100 105 110
Thr Val Arg Phe Ala His His Ser Val Lys Gln Phe Phe Ile Ala Arg
115 120 125
Gly Asp Glu Pro Glu Asn Leu Asn Pro Ile Asn Pro Asp Glu Thr Asn
130 135 140
Lys Glu Met Gly Arg Val Ile Leu Thr Tyr Leu Asn Tyr Gly Ile Phe
145 150 155 160
Asp Arg Gln Val Ser Arg Thr Val Val Pro Thr Met Ser Ala Val Asp
165 170 175
Val Pro Thr Arg Ile Val Ser Ser Val Phe Arg Asp Ser Val Asn Thr
180 185 190
Lys Arg Val Ala Leu Glu Leu Leu Lys Thr Arg Lys Asn Gly Lys Cys
195 200 205
Asp Ile Gly Gln Thr Leu Ala Glu Thr Ala Met Ala Gln Arg Arg Ser
210 215 220
Pro Ala Glu Ser His Pro Phe Leu Ala Tyr Ala Lys Asp Tyr Phe Arg
225 230 235 240
Tyr His Ile Leu Gly Val Trp Asn Cys Glu Lys Glu Met Gly Gln Leu
245 250 255
Trp Gln Gly Leu Leu Ala Arg Asn Ser Leu Asp Val Ser Ile Ala Ser
260 265 270
Val Gln His Pro Glu Leu Thr His Thr Asp Lys Ser Gln Leu Arg Ile
275 280 285
Thr Asp Trp Leu Gln Tyr Glu Leu Gln Gln Arg Arg Val Thr Gly Leu
290 295 300
Asp Gly Glu Phe Val Pro Cys Asp Val Leu Ser Gln Leu Val Thr Tyr
305 310 315 320
Arg Val Val Arg Lys Val Leu Glu Glu Thr Gly Phe Tyr Gly Tyr Gly
325 330 335
Ala Ser Thr Leu Ala His Gly Ile Leu Thr Asp Arg Gln Arg Trp Phe
340 345 350
Ala Ile Leu Val Asp Ile Gly Ile Asn His Tyr Leu Gly Ala His Phe
355 360 365
Gln Ser Ser Met Ile Gln Ser Pro Leu Thr Asp Arg Asp Phe Pro Ile
370 375 380
Ser Ser Val Gln Phe Leu Glu Lys Tyr Lys Ser Asn Ile Ser Gln Thr

```
385                 390                 395                 400
Thr Gly Ser Leu Thr Val Pro Pro Gly Ser Asn Ile Pro Ser Ser Ser
                405                 410                 415
Arg Pro Val Gly Pro Met Glu Thr Asp Arg Trp Met Ala Leu Ala Glu
            420                 425                 430
Leu Phe Cys Leu Arg Gln His Gln Tyr Leu Ala Pro Ile Leu Gln Glu
        435                 440                 445
Gly Gln His Tyr Asn Ser Glu Asp Gly Ile Met Pro Phe Leu Pro Val
    450                 455                 460
Gly Asn Phe Phe Tyr Asn His Asp Tyr Gly Ser Leu Val Val Glu Val
465                 470                 475                 480
His Pro Ala His His Asp Phe Pro Pro Ala Tyr Arg Gly Gly Glu Asp
                485                 490                 495
Val Asp Gly Pro Tyr Val Val Ala Leu Trp Pro Phe Ser Lys Ala Met
            500                 505                 510
Asp Glu Pro Pro Phe Leu Leu Leu Ser Gln Gly Gly Phe Trp Asp Val
        515                 520                 525
Pro Trp His Leu Leu Arg Ala Val Ala Ser Tyr Arg Pro Gln Gln Gln
    530                 535                 540
Ser Gly Ile Leu Pro Phe Glu Thr Met Arg Leu Ile Phe Pro Val Val
545                 550                 555                 560
Gly Pro Ser Ile Ala Asp Val Trp Gln Gln Ser Leu Gly Thr Asp Met
                565                 570                 575
His Ser Ser Arg Arg Phe Leu Arg Phe Cys Leu Ser Gln Met Thr Gly
            580                 585                 590
Ile Ala Glu Ala Leu Val Phe Val Ile Gln Asn Asp Pro Glu Glu Trp
        595                 600                 605
Tyr Ile Ser Leu Arg Lys Ile Thr Pro Arg Ser Ile Gln Trp Cys Lys
    610                 615                 620
Tyr Ser Arg Ser Thr Phe Gln Trp Gly Thr Leu Arg Leu Asp Leu Arg
625                 630                 635                 640
Thr Leu Ile Ala Asp Pro Ile Glu Arg Ala Pro Arg Gln Ser Glu Lys
                645                 650                 655
Ala Tyr Arg Ala Pro His Glu Ala Lys Gly Lys Asn Gly Ser Lys Arg
            660                 665                 670
Asp Cys Val Trp Arg Leu Gly Cys Ile Tyr Phe Glu Phe Leu Ile Trp
        675                 680                 685
Ala Val Met Gly Ser Thr Gly Leu Gln Glu Phe Arg Glu Ala Arg Gly
    690                 695                 700
Gly Ser Asn Ala Pro Phe Tyr Ser Gln Thr Asp Ser Asp His His His
705                 710                 715                 720
Pro Gly Phe Glu Leu Ser Pro Glu Val Cys Arg Trp Ala Asp Met Leu
                725                 730                 735
Leu Asn Glu Pro Glu Leu Pro Pro Glu Val Arg Arg Phe Arg Glu Tyr
            740                 745                 750
Leu Leu Arg Asp Ile Arg Pro Gly Gly Lys Asp Arg Val Lys
        755                 760                 765
```

<210> 36983
<211> 506
<212> PRT
<213> A.fumigatus

<400> 36983

```
Met Leu Thr Gln Ser Ala Ser Tyr Leu Glu Lys Ile Ser Met Leu Phe
1               5                   10                  15
```

```
Met Asn Ala Gly Arg Ser Ala Pro Arg Tyr Gln Asp Met Ala Leu Leu
            20                  25                  30
Tyr Pro Arg Ser Lys Arg Leu Arg Asp Ala Leu Cys Glu Tyr Phe Ile
        35                  40                  45
Val Ile Leu Asn Ile Cys Lys His Ala Val Asp Phe Leu Gln Lys Ser
    50                  55                  60
Pro Leu Ser Gln Phe Thr Ser Ala Ile Ser Asp Ser Cys Leu Val Ser
65                  70                  75                  80
Phe Glu Lys Asp Leu Gln Gln Trp Ser Val Val Ile Val Glu Glu Val
                85                  90                  95
Thr Leu Leu Ser Ser Gln Ser Leu Gln Glu Glu Ala Arg Glu Asn Ser
            100                 105                 110
Arg Phe Arg Gln Ile Met Val Lys Leu Ser Asp Ser Arg Asn Arg Cys
        115                 120                 125
Gln Gln Val Ala Leu Arg Ile Arg Ile Leu Asp Ala Cys Ser Thr Tyr
    130                 135                 140
Asp Tyr Gln Thr Ser Trp Lys Gln Ala Arg Lys Gln Gly Thr Thr Thr
145                 150                 155                 160
Trp Phe Ala Ser Thr Ser Glu Tyr Gln Arg Trp Lys Gly Thr Pro Ser
                165                 170                 175
Ser Cys Ala Leu Leu Cys Thr Gly Lys Leu Gly Ser Gly Lys Thr Thr
            180                 185                 190
Leu Leu Ala Asn Val Val Asp Asp Leu Phe Cys Ser Ala Ser Lys Gly
        195                 200                 205
Ser Val Ala Tyr Phe Phe Cys Arg Phe Asp Val Ser Asp Ser Leu Thr
    210                 215                 220
Ala Arg Thr Ile Ile Gly Cys Leu Ala Arg Gln Leu Leu Ala Gln Gln
225                 230                 235                 240
Pro Ile Asp Leu Thr Lys Ile Asp Asn Phe Trp Asn Asn Ser Leu Ala
                245                 250                 255
Asp Pro Asp Glu Gln Ala Ile Val Lys Phe Val Gln Lys Leu Leu Ser
            260                 265                 270
Val Asp Pro Ile Tyr Ser Leu Val Val Asp Gly Leu Asp Glu Cys Pro
        275                 280                 285
Glu Lys Glu Gly Lys Met Thr Leu Glu Ile Leu Gln Gln Leu Gln Lys
    290                 295                 300
His Leu Lys Ile Arg Met Cys Leu Ser Phe Arg Gln Asp Ala Gly Asp
305                 310                 315                 320
His Ala Lys Val Ala Ala Gly Ile Leu Asn Ala Gln Trp Thr Leu Pro
                325                 330                 335
Ile Pro Glu Asn Asn Pro Asp Ile Asp Ala Tyr Ile Asp Ala Glu Leu
            340                 345                 350
Arg Glu Arg Leu Glu Ser Glu Arg Leu Cys Ile Arg Asn Pro Ala Ile
        355                 360                 365
Ile Leu Ser Ile Gln His Ala Leu Val Thr Gly Ala Gln Gly Met Tyr
    370                 375                 380
Val Ser Pro Leu His His Cys Leu Asn Arg Leu Gln Ser Met Thr Thr
385                 390                 395                 400
Gly Ser Asp Lys Leu Gly Phe Ser Gly Pro His Cys Tyr Ser Thr Ala
                405                 410                 415
Phe Ala Trp Ser Arg Gln Thr Arg Gln Phe Ser Arg Pro Leu Lys Ala
            420                 425                 430
Phe Arg Lys Ala Phe Gln Lys His Leu Gly Glu Phe Tyr Ser Lys Leu
        435                 440                 445
Val Ser Gln Thr Ser Ser Ile Ala Ala Gly Leu Cys Ser Trp Leu Trp
    450                 455                 460
```

```
Leu Arg Asp Gly Pro Tyr Gln Trp Gly Ser Tyr Val Arg His Ser Val
465                 470                 475                 480
Ser Phe Pro Val Thr Arg His Gly Ser Leu His Asp Lys Ser Ile Ile
                485                 490                 495
Phe Met Arg Pro Leu Gln Val Val Asn Ala
            500                 505
```

<210> 36984
<211> 229
<212> PRT
<213> A.fumigatus

<400> 36984

```
Leu Gln Ser Leu Phe Ser Leu Leu Val Arg Pro Leu Asp Glu Trp Ala
1               5                   10                  15
Ser Ala Arg Thr Gln Ser Leu Pro Leu Ser Ala Leu Lys Gly Ala Val
            20                  25                  30
Val Gly Ile Asp Ala Ser His Tyr Ile Ser Gln His Leu Leu His His
        35                  40                  45
Ser Thr Arg Glu Pro Leu Leu Val Ala Leu Gly Gly Phe Pro Phe Ala
    50                  55                  60
Leu Lys Thr Asn Ile Glu Arg Glu Leu Gln Ser Phe Lys Glu Leu Gly
65                  70                  75                  80
Val Ala Cys Leu Phe Val Phe Asn Gly Leu Glu Phe Gly Lys Lys Asp
                85                  90                  95
Gln Arg Pro His Val Gln Thr Glu Ser Leu Arg Ala Phe Glu Gln Ala
            100                 105                 110
Trp Glu Leu Tyr Asp Gln Gln Gln Ala Asp Gln Val Val Asp Ala Phe
        115                 120                 125
Ser Gly Ala Gly Lys Thr Pro Phe Leu His Pro Arg Tyr Ser Cys Leu
    130                 135                 140
Leu Val Cys Ala Asp Lys Thr Pro Pro Ala Pro Gly Thr Pro Arg Pro
145                 150                 155                 160
Glu Ser Leu Tyr Arg Phe Leu Gln Arg Ile Leu Tyr Gln Asn Gly Val
                165                 170                 175
Asp Phe Ile Val Ala Pro Tyr Ser Ala Ala Ala Gln Val Arg Lys Arg
            180                 185                 190
Pro Ser Glu Lys Leu Thr Arg Lys Gly Ser Val Ser Tyr Phe Ser Phe
        195                 200                 205
Leu Ile Ala Phe Leu Ser Cys Gln Gly Leu Gln Pro Arg His Arg Cys
    210                 215                 220
Gly Leu Trp Ala Leu
225
```

<210> 36985
<211> 74
<212> PRT
<213> A.fumigatus

<400> 36985

```
Pro Gly Ile Phe Leu Asn Leu Asn Gly Ser Asn Tyr Gln Lys Leu Leu
1               5                   10                  15
Ser Ser Gln Asp Glu Ile Leu Ala Asn Val Tyr Trp Arg Phe Leu Gln
            20                  25                  30
Leu Arg Gly Tyr Ile Asp Glu Lys His Arg Leu Thr Ser Trp Gly Val
        35                  40                  45
```

```
Cys Leu Asp Gln Ala Leu Ser Val Leu Asp Pro Ala Asp Ile Leu His
    50                  55                  60
Ala Ala Ala Gly Arg Tyr Thr Phe Pro Gln
65                  70

<210> 36986
<211> 160
<212> PRT
<213> A.fumigatus

<400> 36986
Ser Trp Asn Val Asp Gly Lys Val Ala Pro Met Asp Trp Glu Asn Ala
1               5                   10                  15
Pro Ser Asp Met His Glu Leu Ile Gly Gln Arg Leu Pro Glu Glu Ile
            20                  25                  30
Tyr Phe Tyr Leu Ser Lys Gly Val Leu Gly Pro Glu Ile Pro Asn Tyr
        35                  40                  45
Leu Thr Ser Gly Glu Val Arg Ile Ser Leu Pro Leu Gly Val Glu Asp
    50                  55                  60
Thr Glu Ile Tyr Arg Gln Thr Val Ser Ser Thr Leu Thr Pro Ile Arg
65                  70                  75                  80
Thr Gln Ser Ile Cys Leu Leu Ser Asn Ser Leu His Arg Phe Tyr Gln
                85                  90                  95
Thr Lys Val Ile Asn Ile Arg Thr Trp Phe Asp Glu Lys Ser Asp Lys
            100                 105                 110
Ser Ile Thr Leu Lys Thr Leu Pro Ser Val Lys Glu Thr Ile Gln Ala
        115                 120                 125
Trp Lys Ile Arg Ser Asp Gln Leu Pro Glu Gly Val Lys Lys Leu Gln
    130                 135                 140
Val Gly Ser Lys Cys Tyr Leu His Ala Lys Tyr Val Phe Ser Asp His
145                 150                 155                 160

<210> 36987
<211> 60
<212> PRT
<213> A.fumigatus

<400> 36987
Ser Lys Ala Phe Phe Ala Ser Pro Ala Glu Glu Lys Ala Thr Cys Cys
1               5                   10                  15
Ile Ser Pro Asn Val Cys Pro Thr Gln Phe Ser Thr Tyr Ile Asp Arg
            20                  25                  30
Tyr Met Thr Leu Met Leu Val Ala Cys Arg Ile Val Ala Gly Gln Ala
        35                  40                  45
Cys Thr Ser Lys Leu Ser Ile Gln Ser Ile Lys Gly
    50                  55                  60

<210> 36988
<211> 74
<212> PRT
<213> A.fumigatus

<400> 36988
Ile Lys Met Glu Gln Thr Ser Thr Val Gly Pro Pro Ile Glu Leu Pro
1               5                   10                  15
Ile Ile Asp Ile Ser Asn Pro Asn Asp Pro Asn Val Gly Lys Ala Met
```

```
            20                  25                  30
Leu Asp Ala Ala Ala Lys Tyr Gly Phe Leu Tyr Val Asp Ser Lys Gly
        35                  40                  45
Thr Asp Phe Ala Ala Glu Asp Val Lys Arg Ala Phe Glu Leu Val Asp
    50                  55                  60
Cys Pro Arg Ser Thr Val His Gln Ile His
65                  70
```

<210> 36989
<211> 62
<212> PRT
<213> A.fumigatus

<400> 36989
```
Asp Leu Thr His Ile Leu Lys Tyr Leu Thr Asn Asp Arg Ser Ser Arg
1               5                   10                  15
Ser Ser Trp Ser Phe Ile Phe Arg Ile Arg Ile Leu Thr Leu Pro Pro
            20                  25                  30
Gly Gln Leu Ala Gly Asn Leu Ala Arg Thr Gln Gln Cys Thr Thr Asn
        35                  40                  45
Ala Ile Leu Leu Ser Asp Ser Asn Gln Ser Ile Ser Arg Val
    50                  55                  60
```

<210> 36990
<211> 65
<212> PRT
<213> A.fumigatus

<400> 36990
```
Pro Lys Arg Gly Thr Cys Gln Pro Arg Ser Val Lys Thr Gly Val Ala
1               5                   10                  15
Ala Tyr Val Thr Lys Asp Asp Ala Arg Glu Ala Gln Arg Ala Glu Ser
            20                  25                  30
Phe Val Tyr Gly Gly Gln Asn Pro Ser Gly Gly Met Ala Ala Gln Met
        35                  40                  45
Gln Val Ser Gly Met Ala Gly Trp Ala Trp Val Ile Lys Leu Thr Asn
    50                  55                  60
Cys
65
```

<210> 36991
<211> 143
<212> PRT
<213> A.fumigatus

<400> 36991
```
Ile Met Arg Leu Trp Ser Val Tyr His Asp His Thr Ile Ser Leu Tyr
1               5                   10                  15
Glu Ser Leu Val Asn Met Leu Ser Leu Gly Leu Ala Leu Leu Phe Ser
            20                  25                  30
Gly Thr Ala Ala Leu Ala Ser Arg Asp Thr Phe Tyr Pro Pro Leu Asn
        35                  40                  45
His Thr Thr Phe Ile Thr Asn Ala Ser Tyr Gly Thr Tyr Gly Gly Ile
    50                  55                  60
Tyr Thr Ala Pro Ala Asp Ser Ala Gly Ser Pro Ser Ala Asp Asp Val
65                  70                  75                  80
```

```
Tyr Asn Tyr Cys Ser Met Pro His Pro Arg Gly Glu Thr Tyr Ser Leu
                85                  90                  95
Pro Pro Pro Val Ala Asn His Ser Ile Lys Ala Lys Leu Val Tyr Leu
            100                 105                 110
Glu Tyr Leu Gln Arg His Gln Arg Arg Thr Pro Tyr Asn Ile Leu Pro
        115                 120                 125
Gly Gly Glu Val Ile Arg Arg Ser Thr Ile Ala Pro Thr Arg Arg
    130                 135                 140
```

<210> 36992
<211> 317
<212> PRT
<213> A.fumigatus

<400> 36992

```
Phe Ala Gly Leu Gln Leu Arg Arg Leu Val Ala Asn Phe Ile Gln Asp
1               5                   10                  15
Gln Glu Tyr Asn Cys Asp Ser Val Asp Pro His Val Tyr Val Ala Pro
            20                  25                  30
Ala Ser Gln His Pro Ser Pro Val Ala Val Tyr Gly Gln Thr Tyr Ser
        35                  40                  45
Asp Pro Ser Asn Pro Tyr Leu Ala Thr Tyr Ala Asn Gly Thr Cys Gln
    50                  55                  60
Tyr Pro Gln Leu Thr Leu Gly Gly Phe Leu Asp Gly Tyr Gln His Gly
65                  70                  75                  80
Arg Asp Leu Arg Ala Val Tyr Gly Arg Arg Leu Gly Leu Ile Pro Pro
                85                  90                  95
Val Pro Asp Gln Lys Arg Val Trp Phe Arg Ser Ser Ser Ser Ala Leu
            100                 105                 110
Thr Gln Gly Ser Ala Gly Ala Val Leu Arg Gly Leu Trp Pro Glu Tyr
        115                 120                 125
His Lys Pro Ile Pro Val His Gln Gln Ala Ser Ala Val Asp Thr Val
    130                 135                 140
Asn Arg Gly Phe Pro Cys Ser Ala Arg Ser Ala Leu Leu Ser Ala Ile
145                 150                 155                 160
Gln Ser Thr Ala Glu Trp Asn Glu His Leu Asn Val Thr Gln Ala Leu
                165                 170                 175
Arg Asp Glu Leu Ala Ala Met Phe Asp Ala Gln Asp Glu Ser Ala Trp
            180                 185                 190
Thr Ser Asn Phe Asp His Phe Ala Asp Asn Phe Gln Ala Arg Leu Cys
        195                 200                 205
Asn Gly Tyr Arg Leu Pro Cys Arg Val Gln Asp Gln Thr Gln Cys Val
    210                 215                 220
Thr Ala Ala Gln Ala Asn Glu Val Phe Arg Ala Gly Asp Trp Glu Tyr
225                 230                 235                 240
Asn Tyr Met Trp Arg Arg Asn Ala Asn Ala Thr Arg Tyr Ile Gln Val
                245                 250                 255
Ile Glu Gly Leu Phe Ile Gly Glu Ile Val Arg Lys Phe Glu Ala Val
            260                 265                 270
Ala Glu Gly Ala Ser Lys Leu Ala Tyr Ser His Asn Phe Val His Asp
        275                 280                 285
Gly Asp Ile Ser Pro Ile Leu Gly Ala Leu Gly Ile Thr Ala Met Arg
    290                 295                 300
Trp Pro Gly Met Gly Ser Asn Ile Ala Phe Glu Ile Trp
305                 310                 315
```

<210> 36993
<211> 60
<212> PRT
<213> A.fumigatus

<400> 36993
Thr Ala Ala Phe Pro Glu Arg Ile Thr Thr Val Thr Ile His Leu Lys
1 5 10 15
Leu Asn Leu Phe Leu Ser Asp Ser Ser Phe Ile Ser Val Val Arg Asn
20 25 30
Gln Thr Asn Asn Thr Ser Gly Ile Asp Glu Thr Glu Lys Ala Ala Glu
35 40 45
Asp Arg Val Cys Ala Val Leu Phe Leu Thr Phe Tyr
50 55 60

<210> 36994
<211> 70
<212> PRT
<213> A.fumigatus

<400> 36994
Phe Phe Gln Glu Met Leu Gln Phe Met Ser Glu Ser Glu Arg Glu Gly
1 5 10 15
Asn Ser Trp Arg Gly Asn Ser Ile Gly Pro Asp Asp Tyr Ser Asp Gln
20 25 30
Thr Gln Asn Gln Thr Lys His Val Leu Phe Leu Phe Asn Lys Gln Arg
35 40 45
Asn Lys His Gly Glu Lys Ala Thr Val Gln Arg Pro Lys Thr Asp Tyr
50 55 60
Tyr Thr Leu Ile Ile Ile
65 70

<210> 36995
<211> 83
<212> PRT
<213> A.fumigatus

<400> 36995
Leu Ser Phe Asn Pro Gly Val Ser Phe Thr Ile Ser Arg Thr Glu Phe
1 5 10 15
Ser Lys Arg Ser Met Phe Asp Leu His Ser Pro Ser Leu Pro Arg Val
20 25 30
Phe Pro Thr Ser Gly Trp Glu Val Ile Asp Pro Ser Leu Pro Ile Glu
35 40 45
Glu Glu Thr Ile Pro Thr Tyr Arg Val Glu Lys Phe Tyr Pro Val Tyr
50 55 60
Ile Gly Glu Val Phe Lys Pro Ser Ile Ser Ser Ser Gly Gln Ile Gly
65 70 75 80
Leu Trp Ile

<210> 36996
<211> 295
<212> PRT
<213> A.fumigatus

<400> 36996
Gly Leu Arg Ile Ala Ile Lys Leu Trp Leu Trp Phe Ala Phe Leu Ser
1 5 10 15
Leu Tyr Ile Phe Asn Ile Arg Ile Ile Ile His Arg Pro His Cys Trp
20 25 30
Glu Cys Ser Pro Gly Leu Ser His Ser Pro Ser Phe Val Met Ser Phe
35 40 45
Pro Pro Ile Asp Pro Met Ser Ser Ala Ser Gln Pro Leu Ser Ser Pro
50 55 60
Ser Ser Ser Ser Asn Pro Ser Gly Tyr Ile Lys Ser Thr Ser Val Asp
65 70 75 80
His Ala Ala Asn Pro Arg Thr His Thr Ala His Asp Pro Pro Ser Ile
85 90 95
Arg Ser Cys Val Thr Cys Arg Arg Arg Lys Val Arg Cys Asn Lys Arg
100 105 110
Thr Pro Cys Ser Asn Cys Val Lys Ala Gly Ile Glu Cys Val Phe Pro
115 120 125
Pro Pro Gly Arg Ala Pro Arg Lys Ser Lys Arg Pro His Asp Ala Glu
130 135 140
Leu Leu Ser Arg Leu Arg Arg Leu Glu Gly Val Ile Glu His Leu Ser
145 150 155 160
Gly Lys Lys Ser Gly Ala Val Glu Pro Leu Cys Thr Val Ser Ser Leu
165 170 175
Ser Gln Gln Glu Pro Gly Ser Ala Ser Pro Gln Glu Gly Arg Gln Thr
180 185 190
Thr Pro Gln Thr Gln Gly Val Gln Ala Gly Lys Cys Pro Phe Val Leu
195 200 205
Asp Ser Asp Pro Lys Ala Val Lys Pro Arg Asn Leu Glu His Asp Phe
210 215 220
Gly Arg Leu Val Ile Asp Glu Gly Arg Ser Arg Tyr Val Ser Asn Arg
225 230 235 240
Leu Trp Ala Ser Leu Gly Asp Glu Val Ser Val Phe Arg Phe Asn Pro
245 250 255
Gln Ala Phe Val Leu Met Leu Met Ala Thr Asp Arg Gly Ala Ala Arg
260 265 270
His Phe Gly Pro Phe Ile Val Arg Arg Gly Arg Ser Ser Phe Ala Trp
275 280 285
Ile Leu Val Asp Ser Val His
290 295

<210> 36997
<211> 622
<212> PRT
<213> A.fumigatus

<400> 36997
Cys Leu Trp Gln Gln Ile Glu Glu Leu Gln Asp Ile Leu Asp Pro Ser
1 5 10 15
Ser Ser Glu Glu Glu Asp His Pro Ser Pro Gly Ser Ser Ser Thr Leu
20 25 30
Ser Thr Asn His Asp Gly Phe Leu Phe Gly Tyr Tyr Ser Leu Ser His
35 40 45
Ser Leu Arg Ser Tyr His Pro Pro Pro Pro Lys Val Pro Val Leu Trp
50 55 60
Asp Ile Tyr Leu Asp Asn Val Ala Pro Leu Ile Pro Met Phe His Lys
65 70 75 80

```
Pro Thr Val Arg Lys Leu Leu Thr Asp Ala Ala Gln Asn Pro Asn Phe
                85                  90                  95
Leu Asp Lys Asn Ser Glu Ala Leu Val Leu Ser Val Tyr Tyr Val Thr
            100                 105                 110
Ile Val Ser Met Ser Pro Glu Gln Cys Phe Ser Ile Leu Gly Asp Asp
        115                 120                 125
Arg Asp Thr Ala Val Thr Arg Tyr Arg Phe Ala Val Glu Gln Ala Leu
    130                 135                 140
Ser Lys Ala Gly Leu Leu Asn Thr Gln Ser Leu Met Leu Leu Gln Ala
145                 150                 155                 160
Ala Val Leu Phe Leu Ile Gly Val Arg Arg Glu Asp Asp Thr Lys Phe
                165                 170                 175
Val Trp Thr Met Thr Ala Val Val Leu Arg Leu Ala Gln Gly Ile Gly
            180                 185                 190
Leu His Arg Asp Gly Thr Asn Phe Gly Leu Lys Pro Phe Glu Thr Glu
        195                 200                 205
Met Arg Arg Arg Leu Trp Trp His Ile Cys Leu Leu Asp Ile Lys Ser
    210                 215                 220
Ala Glu Glu His Gly Thr Asp Ala Gln Ile Gln Asp Arg Met Phe Asp
225                 230                 235                 240
Thr Arg Leu Pro Leu Asn Ile Asn Asp Asp Asp Ile Thr Leu Asp Met
                245                 250                 255
Gln Glu Pro Pro Glu Glu Arg Val Gly Phe Thr Glu Met Thr Phe Cys
            260                 265                 270
Leu Val Arg Cys Glu Ile Thr Ala Ala Leu Lys Arg Ile Ser Ser Met
        275                 280                 285
Cys Pro Thr Asn Leu Pro His Pro Glu Asn Thr Gln Gln Pro Ala Asp
    290                 295                 300
Ser Cys Ala Lys Leu Ile Gln Glu Val Asn Lys Arg Ile Glu Glu Arg
305                 310                 315                 320
Tyr Thr Gln His Cys Asp Met Asn Val Pro Val Gln Trp Val Cys Ala
                325                 330                 335
Thr Val Ala Arg Leu Ile Leu Ala Lys Leu Trp Leu Ile Val His His
            340                 345                 350
Pro Met Thr Arg Lys Asp Pro Ala Ala Gly Asn Leu Thr Ile Ala Ser
        355                 360                 365
Arg Glu Thr Leu Phe Val Thr Ser Val Glu Ile Ala Glu Phe Thr Arg
    370                 375                 380
Leu Leu Gly Arg Asp Gln Thr Thr Ala Lys Trp Ser Trp Leu Phe Val
385                 390                 395                 400
Thr Asn Met Gln Trp His Leu Ile Ala Phe Val Leu Ser Glu Leu Cys
                405                 410                 415
Val Arg Pro Leu Ser Pro Leu Thr Asp Arg Ala Trp Gln Val Val Ser
            420                 425                 430
Ser Leu Tyr Glu Thr Trp Gly Leu Thr Ala Lys His Arg Lys Gly Met
        435                 440                 445
Leu Trp Arg Pro Leu Ser Arg Leu Met Lys Arg Val Ala Ala Phe Arg
    450                 455                 460
Glu Gln Gln Gln Gln Gln Gln Gln Gln Gln Gly Leu Gln Asn Thr
465                 470                 475                 480
Ser Asp Pro Ser Ser Ala Pro Ser Leu Phe Thr Pro Tyr His Pro Gly
                485                 490                 495
Val Trp Gln Ser Ala Val Gln Pro Tyr Leu Ala Gly Gly Val Pro Gln
            500                 505                 510
Ile Arg Asp Leu Ser Val Pro Gly Ser Val Gln Pro Ala Ser Gln Pro
        515                 520                 525
```

```
Ile Ala Gly Pro Thr Phe Asp Ala Glu Ile Val Pro Glu Leu Phe Pro
    530                 535                 540
Asn Val Thr Trp Pro Ala Leu Pro Asp Ser Gln Ser Met Ser Ala Lys
545                 550                 555                 560
Asp Pro Leu Ser Thr Ala Ala Pro Ile Glu Ile Ser Glu Asn Phe Leu
                565                 570                 575
Gly Pro Thr Thr Thr Ser Gln Asp Pro Ala Leu Gln Gln Asn Trp Glu
            580                 585                 590
Ala Trp Asp Gln Val Met Arg Asp Phe Gln Met Asp Val Gln Glu Ala
        595                 600                 605
Gln Thr Ser His Pro Leu Gly Asn Ile Ser Asp Trp Leu Ala
    610                 615                 620
```

<210> 36998
<211> 165
<212> PRT
<213> A.fumigatus

<400> 36998

```
Ala Asp Pro Ser Leu Lys Ala Thr Thr Gly Leu Ile Leu Val Pro Thr
1                   5                  10                  15
Arg Glu Leu Ala Glu Gln Val Gln Ser Val Ile Ile Lys Phe Ser Ala
            20                  25                  30
Phe Cys Gly Lys Asp Val Arg Ser Val Asn Leu Thr Gln Lys Val Ser
        35                  40                  45
Asp Ala Val Gln Arg Thr Met Leu Ala Asp Tyr Pro Asp Leu Ile Val
    50                  55                  60
Ser Thr Pro Ala Arg Val Ile Ala Asn Leu Gly Thr Ser Ala Leu Ser
65                  70                  75                  80
Leu Glu Asn Leu Thr His Leu Val Ile Asp Glu Ala Asp Leu Val Leu
                85                  90                  95
Ser Tyr Gly Tyr Asp Glu Asp Ile Asn Ala Leu Ala Lys Ala Ile Pro
            100                 105                 110
Arg Gly Val Gln Thr Phe Leu Met Ser Ala Thr Leu Thr Ser Glu Val
        115                 120                 125
Asp Thr Leu Lys Gly Leu Phe Cys Arg Ser Pro Val Ile Leu Lys Leu
    130                 135                 140
Glu Asp Leu Glu Asp Glu Gly Ala Gly Ile Ser His Leu Val Val Arg
145                 150                 155                 160
Tyr Gly Leu Leu Phe
                165
```

<210> 36999
<211> 64
<212> PRT
<213> A.fumigatus

<400> 36999

```
Leu Glu Asn Thr Trp Lys Ser Leu Thr Thr Ala Asn Ser Ser Ser Pro
1                   5                  10                  15
Cys Phe Asp Trp Leu Leu Leu Leu Pro Leu Asp Arg Val Tyr Ile Ile
            20                  25                  30
Ser Pro Gly Asn Gly Thr Glu Ser Tyr Ser Thr Ser Ile His Asn Thr
        35                  40                  45
Ala Thr Asn Asn Val Gln Leu Glu Gly Asp Met Met Leu Thr Ala Met
    50                  55                  60
```

<210> 37000
<211> 130
<212> PRT
<213> A.fumigatus

<400> 37000
Ile Val Glu Lys Ile Leu Pro Arg Glu Ser His Arg Pro Thr Glu Phe
1 5 10 15
Leu Glu Thr Val Arg Met Arg Lys Thr Phe Gln Pro Val Val Ser Tyr
20 25 30
Asn Gln Ala Ser Phe Lys Gly Pro Ser Gln Arg Leu Leu Glu Leu Cys
35 40 45
Val Val Asn Met Lys Arg Lys Leu Asp Ala Asn Asp Val Pro Ser Thr
50 55 60
Glu Val Glu Glu Glu Lys Asn Thr Lys Asp Ala Asp Asn Thr Asp Phe
65 70 75 80
Glu Ser Leu Asn Leu Asp Pro Arg Leu Arg Gln Ala Leu Ile Lys Glu
85 90 95
Gln Phe Thr Lys Pro Thr Pro Val Gln Ser Lys Ala Ile Pro Leu Ala
100 105 110
Leu Glu Gly Lys Asp Ile Leu Gly Lys His Arg Ala Ser Val Cys Ala
115 120 125
Met Val
130

<210> 37001
<211> 287
<212> PRT
<213> A.fumigatus

<400> 37001
Phe Ala Ser Arg Ser Ala Gln Ala Val Val Lys Thr Pro Ser Asp Lys
1 5 10 15
Glu Arg Ala Lys Ala Asp Thr Val Pro Ala Ser Trp Pro Thr Gln Gly
20 25 30
Arg Val Glu Phe His Ser Val Ser Ala Arg Tyr Lys Pro Glu Gly Pro
35 40 45
Asp Val Leu Arg Asn Val Ser Phe Val Ala Asn Pro Gly Glu Arg Ile
50 55 60
Gly Ile Val Gly Arg Thr Gly Ser Gly Lys Ser Thr Leu Gly Leu Ser
65 70 75 80
Leu Leu Arg Phe Val His Leu Thr Ser Gly Ser Ile Thr Ile Asp Gly
85 90 95
Leu Asp Ile Ser Gln Ile His Leu His Arg Leu Arg Thr Ser Val Thr
100 105 110
Leu Ile Pro Gln Glu Pro Val Leu Phe Ser Gly Asp Val Gln Ser Asn
115 120 125
Leu Asp Pro Phe Gly Glu Ala Ser Glu Thr Glu Leu His Ser Ala Leu
130 135 140
Ser Ala Cys Thr Ser Ile Gln Val His Gly Ser Pro Ala Gly Glu Ala
145 150 155 160
Gly Thr Asn Lys Pro Thr Thr Arg Ala Leu Thr Leu Asp Thr Pro Ile
165 170 175
Ala Ala Asn Gly Glu Asn Phe Ser Gln Gly Gln Arg Gln Val Leu Ser
180 185 190

```
Ile Ala Arg Ala Val Cys Arg Arg Ser Lys Val Val Leu Leu Asp Glu
        195                 200                 205
Ala Thr Ala Ser Val Asp His Glu Thr Asp Met His Met Gln Lys Leu
    210                 215                 220
Leu Arg Ser Met Phe Pro Asp Ser Thr Ile Ile Ala Ile Ala His Arg
225                 230                 235                 240
Leu Arg Thr Ile Met Asp Tyr Asp Arg Val Leu Val Met Ala Glu Gly
                245                 250                 255
Glu Ile Ile Glu Tyr Val His Pro Ser Leu Ser Cys Leu Ser Trp Val
            260                 265                 270
Cys Ser Gln Arg Leu Thr Leu Glu Glu Thr Ile Pro Pro Arg Ile
        275                 280                 285

<210> 37002
<211> 98
<212> PRT
<213> A.fumigatus

<400> 37002
Ser Asn Ile Leu Phe Gly Leu Leu Thr Ile Ser Gln Gly Ser Leu His
1               5                   10                  15
Tyr Ala Lys Ala Phe Gly Glu Ala Ser Val Glu Ser Thr Glu Thr Asp
            20                  25                  30
Ala Val His Trp Val Ala Ser Cys Thr Lys Leu Val Thr Thr Val Ala
        35                  40                  45
Val Met Gln Cys Val Glu Arg Gly Leu Leu Asp Leu Asp Glu Asp Ile
    50                  55                  60
Ala Asn Val Leu Pro Glu Trp Asp Ser Pro Arg Ile Leu Thr Gly Phe
65                  70                  75                  80
Asp Glu Asp Asp Asn Pro Ile Phe Trp Pro Ala Thr Lys Pro Val Thr
                85                  90                  95
Leu Arg


<210> 37003
<211> 209
<212> PRT
<213> A.fumigatus

<400> 37003
Ala Glu Arg Ala Ala Ala Arg Ala Pro Leu Ala Ser Pro Cys Ser Ala
1               5                   10                  15
Ser Ser Ile Leu Pro Pro Ala Ala Ser Gln Ser Thr Ala Trp Ile Ser
            20                  25                  30
Ala Arg Ser Thr Tyr Ile Ala Ser Ala Gln Ala Ser Pro Ser Ser Arg
        35                  40                  45
Lys Asn Pro Ser Phe Ser Leu Val Thr Ser Asn Gln Thr Trp Thr His
    50                  55                  60
Ser Glu Lys Arg Ala Arg Arg Ser Cys Thr Leu Leu Tyr Pro Pro Ala
65                  70                  75                  80
Pro Leu Ser Lys Cys Thr Ala Ala Pro Pro Glu Lys Arg Ala Pro Thr
                85                  90                  95
Asn Gln Gln Pro Ala Pro Ser Pro Ser Thr Pro Pro Ser Pro Pro Thr
            100                 105                 110
Ala Lys Thr Ser Ala Arg Ala Ser Asp Arg Ser Ser Val Ser Arg Ala
        115                 120                 125
```

```
Arg Ser Ala Ala Ala Pro Arg Ser Ser Cys Trp Met Arg Arg Leu Arg
    130                 135                 140
Pro Trp Thr Thr Arg Arg Thr Cys Thr Cys Lys Ser Cys Tyr Gly Ala
145                 150                 155                 160
Cys Ser Pro Thr Arg Gln Ser Ser Arg Leu Arg Ile Ala Cys Gly Arg
                165                 170                 175
Ser Trp Ile Met Thr Gly Cys Trp Leu Trp Leu Lys Ala Arg Ser Leu
            180                 185                 190
Ser Met Phe Ile Pro Leu Cys Leu Val Tyr His Gly Phe Val His Arg
        195                 200                 205
Gly
```

<210> 37004
<211> 162
<212> PRT
<213> A.fumigatus

<400> 37004

```
Ser Thr Arg Lys Thr Tyr Arg Ile Thr Val Gly Cys Pro Ile Thr Ser
1               5                   10                  15
Asn Cys Asp Thr Ala Leu Asn Ser Phe Glu Met Ala Ile Pro Leu Pro
            20                  25                  30
Gln Val His Ser Val Val Asp Cys Ala Ser Phe Asn Arg Thr Val Leu
        35                  40                  45
Pro Phe Leu Ser Gln Leu Thr Thr Leu Pro Ala Gln Leu Gln Val Ala
    50                  55                  60
Ala Ser Thr Lys Asp Val Asp Ser Leu Lys Asp Ile Tyr Leu Ser Thr
65                  70                  75                  80
Asn Pro Phe Ile Ser Ala Leu Gly Phe Thr Leu Val Leu Trp Val Leu
                85                  90                  95
Phe Ala Val Ala Ala Glu Phe Asn Arg Asn Tyr Ser Gln Val Asp Arg
            100                 105                 110
Phe Trp Ser Ile Leu Pro Ser Val Tyr Thr Val His Phe Val Ala Trp
        115                 120                 125
Ala Arg Leu Trp Gly Ile Lys Asn Gln Ser Leu Asp Thr Ile Ala Leu
    130                 135                 140
Ile Thr Leu Leu Trp Gly Val Ser Ile Leu Lys Arg Gly Leu Cys Ile
145                 150                 155                 160
Cys Arg
```

<210> 37005
<211> 134
<212> PRT
<213> A.fumigatus

<400> 37005

```
Val Leu Lys Leu Thr Asn Gln Ser Cys Leu Ile Asp Thr Val Ser Asn
1               5                   10                  15
Val Ser Thr Ser Glu Ala Arg Cys Gln Ser Ser Glu Ser Ala Phe Gln
            20                  25                  30
Ile Ile His Ile Leu Leu Gly His Asn Leu Leu Gln Met Asp Ala Glu
        35                  40                  45
Asp Leu Phe Pro Ala Leu His Arg Trp Ser Val Asp Ser Asn Val Pro
    50                  55                  60
```

```
Ile Lys Ala Ser Arg Pro His Gln Ser Leu Val Gln Asp Ile Gly Ser
65                  70                  75                  80
Val Gly Ala Ser Glu Asn Asp Asn Leu Phe Arg Ser Val Glu Thr Ile
                85                  90                  95
His Leu Arg Gln Asp Leu Val Gln Gly Ala Leu Pro Leu Ile Ile Thr
            100                 105                 110
Ser Thr Glu Ala Leu Phe Ser Ser Arg Phe Thr Asn Ser Ile Asp Phe
        115                 120                 125
Ile Asn Glu Asp Asp Ala
    130
```

<210> 37006
<211> 245
<212> PRT
<213> A.fumigatus

<400> 37006

```
Ile Arg Leu Thr Phe Asn Tyr Trp Arg Lys Gly Gly Tyr Gln Ile Gly
1               5                   10                  15
Ser Glu Asp Tyr Arg Trp Glu Ile Val Lys Ser His Ile Asn Asn Arg
            20                  25                  30
Phe Phe Leu Phe Leu Phe Asn Val Thr Phe Ile Ser Leu Ile Gln Pro
        35                  40                  45
Leu Leu Leu Leu Leu Val Thr Ala Pro Thr Tyr Asn Phe Ile Leu Leu
    50                  55                  60
Ser Arg Leu Pro Gly Ala Glu Pro Phe Gly Leu Pro Asp Leu Ala Phe
65                  70                  75                  80
Ser Arg Leu Ala Phe Phe Phe Leu Ile Ile Glu Tyr Phe Ala Asp Gln
                85                  90                  95
Gln Gln Trp Asn Phe Gln Ser Ala Lys Lys Glu Tyr Gln Lys Thr Ala
            100                 105                 110
Arg Ile Pro Asp Gln Tyr Lys Gly Gln Phe Thr Pro Glu Asp Leu Glu
        115                 120                 125
Arg Gly Phe Val Val Ser Gly Leu Trp Ser Leu Ser Arg His Pro Asn
    130                 135                 140
Phe Val Ala Glu Gln Ala Ile Trp Leu Thr Leu Tyr Leu Trp Asn Cys
145                 150                 155                 160
Tyr Arg Thr Gly Ser Tyr Ile Gln Trp Thr Gly Leu Gly Ile Leu Gly
                165                 170                 175
Tyr Met Leu Ile Phe Gln Ser Ser Thr Arg Leu Thr Glu Ser Ile Ser
            180                 185                 190
Ala Gly Lys Tyr Pro Glu Tyr Ser Glu Tyr Gln Ala Arg Val Gly Arg
        195                 200                 205
Phe Ile Pro Arg Phe Ser Val Lys Pro Lys Tyr Asn Gly Ser Lys Lys
    210                 215                 220
Lys Thr Ser Arg Ser Lys Thr Glu Pro Ala Gly Thr Ala Thr Gln Glu
225                 230                 235                 240
Gly Lys Lys Ser Gln
                245
```

<210> 37007
<211> 230
<212> PRT
<213> A.fumigatus

<400> 37007

```
Arg Arg Leu Pro Thr Thr Ser Phe Ser Ser Arg Ala Ser Leu Glu Leu
1               5                  10                  15
Asn Arg Ser Val Ser Pro Thr Leu Pro Ser Arg Ala Leu His Ser Ser
            20                  25                  30
Ser Ser Ser Ser Asn Thr Ser Pro Thr Ser Ser Asn Gly Thr Ser Lys
        35                  40                  45
Ala Gln Arg Arg Ser Thr Arg Arg Gln Leu Ala Ser Leu Ile Ser Thr
    50                  55                  60
Arg Ala Asn Ser Leu Pro Arg Thr Trp Ser Ala Ala Ser Ser Leu Ala
65                  70                  75                  80
Ala Ser Gly His Cys Pro Val Thr Arg Ile Leu Ser Gln Ser Lys Pro
                85                  90                  95
Ser Gly Leu Leu Cys Thr Cys Gly Thr Ala Thr Ala Pro Ala Ala Thr
            100                 105                 110
Ser Ser Gly Leu Val Trp Ala Phe Trp Ala Thr Cys Ser Phe Ser Ser
        115                 120                 125
Gln Ala Pro Gly Ser Pro Ser Arg Ser Val Gln Ala Ser Thr Leu Ser
    130                 135                 140
Thr Ala Ser Ile Arg Arg Val Ser Ala Ala Ser Phe Leu Ala Phe Leu
145                 150                 155                 160
Ser Ser Pro Ser Thr Met Ala Val Arg Arg Arg Pro Leu Gly Pro Arg
                165                 170                 175
Leu Ser Arg Gln Ala Leu Arg Arg Arg Arg Ala Arg Lys Val Ser Asp
            180                 185                 190
Gly Arg Ser Pro Met His Asp Phe Cys Arg Leu Ile Phe Val Thr Phe
        195                 200                 205
Asn Leu Trp Gly Thr Gly Arg Leu Lys Phe Leu Asp Ile Tyr Ile Leu
    210                 215                 220
Leu Val Leu Ser Gly Ile
225                 230
```

<210> 37008
<211> 151
<212> PRT
<213> A.fumigatus

<400> 37008

```
Cys Ile Ile Phe Ile Asp Glu Ile Asp Ala Ile Gly Lys Ser Arg Ala
1               5                  10                  15
Lys Gln Ser Phe Ser Gly Gly Asn Asp Glu Arg Glu Ser Thr Leu Asn
            20                  25                  30
Gln Ile Leu Thr Glu Met Asp Gly Phe Asn Thr Thr Glu Gln Val Val
        35                  40                  45
Val Leu Ala Gly Thr Asn Arg Pro Asp Val Leu Asp Lys Ala Leu Met
    50                  55                  60
Arg Pro Gly Arg Phe Asp Arg His Ile Thr Ile Asp Arg Pro Thr Met
65                  70                  75                  80
Glu Gly Arg Lys Gln Ile Phe Arg Val His Leu Lys Lys Ile Val Thr
                85                  90                  95
Lys Glu Asp Met Asp Tyr Leu Glu Gly Arg Leu Ala Ala Leu Thr Pro
            100                 105                 110
Gly Phe Ala Gly Ala Asp Ile Ala Asn Cys Val Asn Glu Ala Ala Leu
        115                 120                 125
Val Gly Lys Phe Gln Asn Leu Ser Leu Trp Val Ser Ser Asn Val Asn
    130                 135                 140
Phe Ser Phe Ile Ser Gly Ser
```

145 150

<210> 37009
<211> 126
<212> PRT
<213> A.fumigatus

<400> 37009
Cys Gln Tyr Gln Ser Lys Leu Thr Gln Ser Thr Gly Ser Cys Gln Phe
1 5 10 15
Pro Thr Leu Gly Phe Val Val Asp Arg Tyr Leu Arg Val Lys Asn Phe
20 25 30
Lys Pro Glu Thr Phe Trp Gly Ile Lys Val Val His Val Gln Glu Arg
35 40 45
Lys Lys Val Asn Phe Leu Trp Arg Arg Val His Leu Phe Asp Arg Ala
50 55 60
Ala Val Thr Val Met Leu Glu Arg Cys Leu Leu Ala Lys Thr Ala Lys
65 70 75 80
Val Thr Lys Val Asn Gln Lys Pro Thr Ser Lys Trp Arg Pro Leu Pro
85 90 95
Leu Thr Thr Val Asp Leu Gln Met Met Gly Ser Arg Tyr Leu Arg Met
100 105 110
Asp Ser Ser Ala Val Met Lys Val Cys His Cys Thr Met Cys
115 120 125

<210> 37010
<211> 189
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (129)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37010
Val Cys Gly Cys Pro Val Met Leu Ile Phe Leu Ser Ser Ala Ala Arg
1 5 10 15
Glu Asn Ala Glu Ser Ile Thr Met Lys His Phe Glu Gln Ala Ile Glu
20 25 30
Arg Val Val Gly Gly Leu Glu Lys Lys Ser Leu Val Leu Ser Pro Glu
35 40 45
Glu Lys Arg Thr Val Ala Tyr His Glu Ala Gly His Ala Ile Cys Gly
50 55 60
Trp Tyr Phe Arg Trp Ala Asp Pro Leu Leu Lys Val Ser Ile Ile Pro
65 70 75 80
Arg Gly Gln Arg Ala Leu Gly Tyr Ala Gln Tyr Leu Pro Ala Gly Gly
85 90 95
Asp Thr Tyr Leu Met Asn Val Asn Gln Leu Met Asp Arg Met Ala Met
100 105 110
Thr Leu Gly Gly Arg Val Ser Glu Lys Leu His Phe Asp Thr Val Thr
115 120 125
Xaa Gly Ala Ser Asp Asp Phe Asn Lys Val Thr Arg Met Ala Thr Ala
130 135 140
Met Val Thr Lys Phe Gly Met Ser Pro Lys Leu Lys Tyr Ile Tyr Tyr
145 150 155 160

```
Glu Glu Asp Pro Gln Gln Gln Leu Ser Gln Ala Leu Leu Arg Gly His
                165                 170                 175
Arg Ser Gly Asp Arg Gln Arg Ser Pro Pro His Arg Gln
            180                 185
```

<210> 37011
<211> 82
<212> PRT
<213> A.fumigatus

<400> 37011

```
Gln Arg Gly Arg Ala Leu Ser Leu Asp Arg Met Leu Thr Ala Leu Gly
1               5                   10                  15
Lys Asn Asn Gly Gly Asp Asp Met Thr Ala Ser Gly Val Lys Ala Leu
            20                  25                  30
Arg His Thr Gly Arg Gln Ala Glu Ile Tyr Tyr Leu Arg Phe Trp Lys
        35                  40                  45
Ser Phe Ala Ser Phe Ala Arg Leu Gly Cys Phe Ser Thr Arg Arg Arg
    50                  55                  60
Asn Asp Val Gly Phe Met Thr Lys Val Gly Asn Lys Gly Gly Ser Gly
65                  70                  75                  80
Met Ala
```

<210> 37012
<211> 85
<212> PRT
<213> A.fumigatus

<400> 37012

```
Ile Ser Ile His Gly Asn Lys Tyr Val Lys Asn Tyr Leu Phe Glu Phe
1               5                   10                  15
Asn Phe Gly Asp Pro Trp Gly Thr Cys Ser Val Thr Met Thr Ser Val
            20                  25                  30
Leu Gly His Leu Met Ala Leu Asp Phe Glu Ser Gln Tyr Lys Ser Trp
        35                  40                  45
Leu Ser Cys Pro Pro Gly Ala Leu Phe Glu Ala Pro Val Arg Glu Phe
    50                  55                  60
Val Glu Glu Val Cys Asn Ile Ser Phe Phe Ser Val Val Lys Gly Leu
65                  70                  75                  80
Val Met Gly Ile Ser
                85
```

<210> 37013
<211> 60
<212> PRT
<213> A.fumigatus

<400> 37013

```
Asp Asn Lys Pro Ile Ala Glu Asn Ile Lys Glu Gln Ala Arg Met Ser
1               5                   10                  15
Lys Ala Leu Phe Ile Trp Thr Asp Cys Asp Arg Glu Gly Glu His Ile
            20                  25                  30
Gly Thr Glu Val Arg Lys Lys Ala Lys Glu Gly Asn Gln Arg Ile Leu
        35                  40                  45
Val Lys Arg Ala Arg Phe Ser Asn Thr Glu Arg Ala
```

50 55 60

<210> 37014
<211> 81
<212> PRT
<213> A.fumigatus

<400> 37014
Ser Leu Ile Asn Gly Ala Phe Lys Thr Pro Arg Ser Gly Arg His Asn
1 5 10 15
Asp Arg Ala His Pro Pro Ile His Pro Val Cys Trp Val Ser Pro Ser
20 25 30
Ala Leu Asn Ser Asp Glu Lys Lys Val Tyr Glu Phe Val Val Arg Arg
35 40 45
Phe Leu Ala Cys Cys Ser Asp Asp Ala Lys Gly Gln Ser Thr Glu Ile
50 55 60
Glu Met Pro Leu Trp Ser Ala Phe His Arg Arg Ser Lys Ser Ala Gln
65 70 75 80
Ala

<210> 37015
<211> 126
<212> PRT
<213> A.fumigatus

<400> 37015
Pro Ser Ser Ala Cys Arg Pro Asn Ser Asn Thr Ser Thr Thr Arg Arg
1 5 10 15
Ile Leu Asn Ser Ser Phe His Lys Pro Phe Ser Glu Asp Thr Ala Arg
20 25 30
Glu Ile Asp Ser Glu Val Arg Arg Ile Val Asn Glu Ala Tyr Asn Gln
35 40 45
Cys Arg Ala Leu Leu Thr Glu Lys Lys Lys Glu Val Gly Ile Val Ala
50 55 60
Glu Glu Leu Leu Ala Lys Glu Val Leu Ser Arg Asp Asp Met Ile Arg
65 70 75 80
Leu Leu Gly Pro Arg Pro Tyr Pro Asp Ser Gly Glu Phe Ala Lys Tyr
85 90 95
Phe Gly Ala Ala Asn Gly Gln Thr Ile Ala Pro Pro Glu Pro Thr Pro
100 105 110
Pro Ile Glu Gly Gly Ser Glu Ser Gly Ala Lys Pro Pro Ser
115 120 125

<210> 37016
<211> 205
<212> PRT
<213> A.fumigatus

<400> 37016
Trp Pro Ser Thr Leu Arg Val Asn Thr Lys Ala Gly Ser His Ala His
1 5 10 15
Leu Ala His Ser Leu Lys Leu Leu Cys Ala Asn Leu Trp Lys Lys Tyr
20 25 30
Ala Ile Ser Ala Ser Phe Arg Ser Ser Arg Ala Trp Leu Trp Ala Ser
35 40 45

```
Leu Glu Thr Arg Ser Lys Val Asn Ser Val Tyr Arg Thr Ile Ser Gln
    50                  55                  60
Ser Pro Lys Thr Ser Arg Ser Arg Pro Gly Cys Pro Arg Leu Tyr Leu
65                  70                  75                  80
Ser Gly Pro Thr Val Ile Glu Arg Glu Ser Thr Ser Val Pro Lys Ser
                85                  90                  95
Ala Lys Lys Pro Lys Arg Glu Thr Ser Val Phe Trp Ser Lys Glu Leu
            100                 105                 110
Asp Ser Ala Thr Gln Arg Gly Arg Glu Tyr Ile Trp Ile Lys Leu Phe
        115                 120                 125
Phe His Arg Gln Cys Ser Pro His Asn Arg His Val Leu Arg Ala Ala
    130                 135                 140
Arg Ala Leu Thr Asp Val Asp Glu Asn Gln Ala Asn Ala Val Ala Ala
145                 150                 155                 160
Arg Ile Glu Leu Asp Leu Arg Ile Gly Ala Ala Phe Thr Arg Leu Gln
                165                 170                 175
Ser Leu Gln Leu Gln Arg Met Cys Ala Asp Leu Ser Asn Lys Leu Ile
            180                 185                 190
Ser Tyr Gly Thr Tyr Leu Leu Gln Tyr Ile Tyr Tyr Lys
        195                 200                 205

<210> 37017
<211> 67
<212> PRT
<213> A.fumigatus

<400> 37017
Leu Arg Asn Asn Thr Leu Ile Leu Thr Gly Ala Asn Thr Pro Glu Gly
1               5                   10                  15
Lys Ser Ser Leu Lys Val Thr Phe Ser Asp Ile Thr Asp Phe Leu Asn
            20                  25                  30
Tyr Glu Val Ser Ser Met Ala Arg Ser Lys Leu Leu Val Leu Gly Ala
        35                  40                  45
Thr Met Thr Ala Arg Ile His Leu Ser Thr Gln Tyr Ala Gly Ser His
    50                  55                  60
Gln Val His
65

<210> 37018
<211> 459
<212> PRT
<213> A.fumigatus

<400> 37018
Arg Arg Asp Ser Leu His Asp Glu Thr Ser Leu Asp Trp Gly Arg Lys
1               5                   10                  15
Ser Leu Glu Asp Pro Gly Ile Tyr Ile Arg Arg Pro Leu Ala Lys Asn
            20                  25                  30
Met Phe Arg Leu Ile His Asp Glu Arg Asn His Gln Gly Ile Asp Lys
        35                  40                  45
Cys Trp Leu Ser Leu Asp Gly Phe Thr Leu Tyr Gln Gly Arg Arg Met
    50                  55                  60
Leu Arg Gln Tyr Ile Glu His Cys Pro Val Cys Leu Gln Asn Lys Ile
65                  70                  75                  80
Arg His His Lys Pro Tyr Gly Ser Leu Gln Pro Leu Gln Val Pro Leu
                85                  90                  95
```

```
Ala Pro Phe Glu Ile Ile Thr Met Asp Phe Ile Val Gly Leu Pro Asp
            100                 105                 110
Asp Asn Gly Tyr Asp Gln Leu Leu Val Val Val Asp Lys Phe Ser Lys
        115                 120                 125
Arg Val Gly Leu Ile Pro Gly Lys Ser Thr Trp Thr Ala Gln Glu Trp
    130                 135                 140
Gly Ser Ser Val Leu Arg Tyr Phe Gln Glu His Asp Trp Gly Met Pro
145                 150                 155                 160
Arg Phe Phe Ile Ser Asp Arg Asp Ser Ile Phe Met Ser Lys Phe Trp
                165                 170                 175
Lys Gly Tyr Phe Thr Ala Leu Lys Ala Arg Trp Leu Tyr Ser Ala Ala
            180                 185                 190
Phe His Pro Gln Thr Asp Gly Gln Thr Glu Arg Val Ile Gln Val Ile
        195                 200                 205
Glu Val Met Leu Arg His Ser Tyr Thr Thr Ala Glu Arg Pro Asp Leu
    210                 215                 220
Phe Arg Trp Thr Met Asp Leu Pro Ser Ile Ile Ser Thr Ile Asn Gly
225                 230                 235                 240
Ser Pro Asn Glu Ser Thr Lys Ala Thr Pro His Arg Leu Leu Phe Gly
                245                 250                 255
Ile Asp Leu Arg Gln Pro Trp Gln Leu Leu Lys Gln Phe Val Lys Gln
            260                 265                 270
Asp Phe Ser Val Arg Leu Asp Ala Glu Glu Ser Met Lys Tyr Ala Ser
        275                 280                 285
Ile Arg Met Lys Glu Ile Tyr Asp Arg Asn His Lys Pro Ile Glu Phe
    290                 295                 300
Arg Val Gly Asp Gln Val Tyr Val Arg Leu His Arg Gly Tyr Ser Leu
305                 310                 315                 320
Pro Thr Lys Arg Ala Asn Arg Lys Leu Gln Leu Gln Asn Asp Gly Pro
                325                 330                 335
Phe Arg Val Leu Glu Arg Val Gly Arg Leu Ala Tyr Arg Ile Glu Leu
            340                 345                 350
Pro Ser Thr Trp Lys Ile His Pro Val Leu Ser Val Ala His Leu Glu
        355                 360                 365
Arg Ala Pro Ala Thr Pro Asp Pro Phe His Arg Glu Leu Pro Lys Pro
    370                 375                 380
Pro Ala Val Val Asp Ala Glu Val Tyr Pro Gly Glu Asp Asp Ile Tyr
385                 390                 395                 400
Glu Val Glu Arg Leu Leu Asp Lys Arg Thr Val Gln Arg Gly Arg Lys
                405                 410                 415
Arg Thr Pro Tyr Val Glu Tyr Leu Val Arg Trp Lys Gly Tyr Gly Pro
            420                 425                 430
Glu Asp Asp Gln Trp Val Arg Lys Asp Asp Leu Gln Gly Ser Leu Glu
        435                 440                 445
Leu Ile Glu Ala Phe Glu Arg Asn Arg Pro Met
    450                 455
```

<210> 37019
<211> 246
<212> PRT
<213> A.fumigatus

<400> 37019

```
Arg Leu Ser Ile Lys Ile Val Thr Glu Tyr Leu Thr Ser Thr Tyr Arg
1               5                   10                  15
Thr Gln Leu Pro Ser Ser Asp Glu Pro Gln Thr Arg Arg Ser Tyr Phe
```

```
            20                  25                  30
Thr Gly Thr Ala Arg Thr Leu Gly Gly Asp Asp Thr Pro Ser Arg Val
        35                  40                  45
Ile Glu Ser Pro Ser Ala Pro Thr Leu Gln Arg Pro Gln Arg Val Gln
    50                  55                  60
Arg Thr Leu His Phe Trp Ala Asp Gly Phe Ser Val Asp Asp Gly Asp
65                  70                  75                  80
Leu Phe Arg Ser Asp Asp Pro Arg Asn Ala Glu Ile Leu Asp Gly Ile
                85                  90                  95
Arg Gln Gly Arg Ala Pro Leu Ser Ile Met Asn Val Gln Pro Gly Gln
            100                 105                 110
Glu Val Asp Val Glu Ile Lys Gln His Glu Glu Lys Tyr Val Lys Pro
        115                 120                 125
Lys Pro Lys Tyr Lys Pro Phe Ser Gly Thr Gly Gln Arg Leu Gly Ser
    130                 135                 140
Pro Thr Pro Ala Val Arg Ser Gln Ala Pro Ser Glu Ala Pro Ala Pro
145                 150                 155                 160
Ser Gln Pro Ser Ala Glu Ser Val Lys Pro Asp Val Asp Glu Ser Gln
                165                 170                 175
Pro Ile Val Thr Leu Gln Ile Arg Leu Gly Asp Gly Thr Arg Leu Thr
            180                 185                 190
Ser Arg Phe Asn Thr Ser His Thr Ile Gly Asp Val Tyr Gln Phe Val
        195                 200                 205
Ser Ala Ala Ser Pro Ser Ser Gln Ser Pro Pro Leu Gly Phe Asp Glu
    210                 215                 220
Leu Pro Ser Pro Thr Gly Thr Leu Gln Thr Lys Ser Gly Trp Pro Leu
225                 230                 235                 240
Val Asn Gln Pro Gln Val
                245
```

<210> 37020
<211> 299
<212> PRT
<213> A.fumigatus

<400> 37020

```
Arg Gln Arg Arg Ala Phe Ala Thr Gly Lys Ala Ile Asn Ala Pro Thr
1               5                   10                  15
Asp Cys Glu Thr Glu Ala Phe Arg Gln Leu Gln Ser Ala Cys Asp Ser
            20                  25                  30
Pro Leu Phe Arg Ala His Phe Asp Pro Leu Arg Arg Leu Tyr Ala Asp
        35                  40                  45
Leu Asp Ala Ser Tyr Glu Gly Phe Gly Val Met Ala Tyr His Ile Gln
    50                  55                  60
Ile Asp Asp His His Thr Asn Leu Ser Ile Pro Pro Ala Arg Thr Val
65                  70                  75                  80
Ile Gln Pro Ile Leu Phe Leu Ser Arg Thr Leu Thr Ser Ala Glu Ser
                85                  90                  95
Arg Tyr Trp Pro Thr Glu Leu Glu Val Ser Cys Leu Val Trp Ala Leu
            100                 105                 110
Arg Lys Leu Arg His Met Ile Glu Ser Ser Arg Gln Pro Thr Val Val
        115                 120                 125
Tyr Thr Asp His Ala Ser Thr Val Gly Ile Ser Thr Gln Thr Ser Met
    130                 135                 140
Asn Thr Val Ala Leu Glu Arg Leu Asn Leu Arg Leu Ile Arg Ala Ser
145                 150                 155                 160
```

```
Gln Tyr Ile Gln Gln Phe Arg Leu Gln Val Phe His Arg Pro Gly Lys
                165                 170                 175
Ser Asn Thr Val Ala Asp Ala Leu Ser Arg Leu Thr Thr Lys Gln Asn
            180                 185                 190
Lys Asn Ile Lys Tyr Asn Glu Pro Asp Leu Asp Ser Ile Asp Ala Tyr
        195                 200                 205
Phe Thr Asp His Gly Tyr Thr Ala Ser Ser Ile Gln Leu Ser Thr Gln
    210                 215                 220
Leu Lys Lys Arg Ile Ile Glu Gly Tyr Cys Asp Asp Pro Arg Thr Thr
225                 230                 235                 240
Arg Ile Ile Glu Val Leu Arg His Asn Arg Thr Ser Asp Leu Leu Pro
                245                 250                 255
Ser Tyr Pro Thr Asp Trp Asn Asp Asp Gly Thr Leu Tyr Met Thr Lys
            260                 265                 270
His Pro Leu Ile Gly Glu Gly Asn His Leu Arg Thr Leu Gly Phe Thr
        275                 280                 285
Ser Gly Val Pro Leu Gln Arg Thr Cys Ser Gly
    290                 295
```

<210> 37021
<211> 70
<212> PRT
<213> A.fumigatus

<400> 37021

```
Phe Gln Tyr Leu Ser Leu Val Phe Phe Arg Gly Tyr Ile Leu Ile Tyr
1               5                   10                  15
Pro Lys Leu Ser Ala Arg Ser Leu Asn Arg Ala Val Asn Ser Tyr Pro
            20                  25                  30
Ser Lys Met Glu Arg Asn Pro Ala Glu Asn Asp Glu Val Val Ser Gln
        35                  40                  45
Phe Cys Ala Met Thr Gly Thr Arg Pro Ala Glu Val Tyr Pro Phe Lys
    50                  55                  60
Leu Ile Pro Cys Asp Ala
65                  70
```

<210> 37022
<211> 140
<212> PRT
<213> A.fumigatus

<400> 37022

```
Glu Thr Leu Ser Leu Thr Ser Ile Ser Lys Ala Gln Glu Tyr Leu Ala
1               5                   10                  15
Ala Asn Gly Trp Asp Ile Glu Ala Ala Val Thr Glu Phe Phe Ala Glu
            20                  25                  30
Gln Asp Glu Ala Met Leu Gly Ala Asn Thr Ala Gly Gly Arg Ser Leu
        35                  40                  45
Gly Gly Ala Glu Ser Ala Ala Ser Ala Gly Arg Ser Leu Gly Gly Ser
    50                  55                  60
Ser Ser Gln Ser Gly Thr Ala Thr Pro Lys Gln Ser Ser Ser Ser Ser
65                  70                  75                  80
Arg Lys Pro Thr Ser Lys Lys Arg Phe Ala Thr Leu Gly Asp Phe Ala
                85                  90                  95
Ser Gly Gly Gly Asp Phe Ser Asp Glu Asp Asp Thr Glu Asn Gln Asp
            100                 105                 110
```

```
Phe Phe Ala Gly Gly Glu Lys Ser Gly Leu Ala Val Gln Asn Pro Asp
        115                 120                 125
Asp Leu Lys Arg Lys Ile Ile Glu Lys Ala Arg Lys
    130                 135                 140

<210> 37023
<211> 90
<212> PRT
<213> A.fumigatus

<400> 37023
Ser Asn Ile Gln Gln His Ile Arg Phe Ser Leu Tyr Leu Tyr Lys Met
1               5                   10                  15
Pro Leu Ser Gln Glu Asn His Met Gln Met Ala Ile Ser Ala Tyr Lys
            20                  25                  30
Thr Gln Lys Ile Lys Leu Lys Leu Lys Ala Ala Lys Val Phe Ser Ile
        35                  40                  45
Ser Lys Ala Thr Leu Tyr His Gln Leu Lys Gly Ile Lys Ala Tyr Ile
    50                  55                  60
Glu Thr His Ala Asn Ser Tyr Lys Leu Thr Ala Ile Lys Glu Glu Val
65                  70                  75                  80
Leu Ile Lys Arg Val Leu Asp Ala Asp Lys
                85                  90

<210> 37024
<211> 119
<212> PRT
<213> A.fumigatus

<400> 37024
Asp Tyr Leu Ser Ser Ser Asp Pro Asn Ile Arg Gly Val Val Ile Ser
1               5                   10                  15
Ala Phe Arg Tyr Thr Leu Thr Asp Ser Arg Gly Ser Tyr Asn Asp Val
            20                  25                  30
Leu Arg Pro Leu Ile Val Pro Leu Leu Val Asn Met Leu Ser Asp Arg
        35                  40                  45
Asp Leu Gly Asn His Arg Leu Ala Leu Thr Thr Leu Asn Ser Ala Ile
    50                  55                  60
His Asn Lys Met Asn Ile Ile Leu Pro His Leu Ser Glu Leu Leu Pro
65                  70                  75                  80
Ala Val Phe Gly Asp Thr Gln Val Lys Pro Glu Leu Ile Arg Glu Val
                85                  90                  95
Gln Met Gly Pro Phe Lys His Lys Val Asp Asp Gly Leu Glu Leu Arg
            100                 105                 110
Lys Val Cys Tyr Pro Ala Tyr
        115

<210> 37025
<211> 597
<212> PRT
<213> A.fumigatus

<400> 37025
Arg Ser Met Ile Asp Phe Glu Pro Ser Ile Gly Thr Ser Ser Ala Ile
1               5                   10                  15
Ser Thr Pro Val Ile Ala Pro Ser Ser Pro Thr Thr Gly Pro Gln Ala
```

```
            20                  25                  30
Glu Leu Ser Arg Ser Val Pro Val Ile Val Gln Ser Leu Val Lys Met
        35                  40                  45
Trp Lys Ser Ala Ser Val Pro Leu Lys Gln Ala Ile Ile Val Leu Leu
    50                  55                  60
Lys Ser Leu Ala Leu Val Arg Tyr Gly Gly Leu Ala Asp His Leu Gln
65                  70                  75                  80
Gln Ile Glu Asp Pro Ile Ala Asp Val Leu Lys Ser Ser Ser Thr Gly
                85                  90                  95
Ser Val Thr Ser Thr Val Gly Pro Ala Val Ser Ala Gly Ala Leu Gln
            100                 105                 110
Thr Glu Thr Leu Ser Leu Val Ala Ala Ile Ala Glu Thr His Thr Ser
        115                 120                 125
Asp Ala Leu Leu Pro Phe Leu Ile Ala Leu Ile Pro Gly Val Ile Gly
    130                 135                 140
Ala Val Asn Asp Arg Asn Tyr Lys Val Ser Ser Glu Ala Leu Gly Ala
145                 150                 155                 160
Val Glu Gln Ile Ile Lys Ala Leu Thr Pro Pro Arg Val Thr Ala Ser
                165                 170                 175
Ser Pro Asp Leu Val Ser Gln Leu Glu Lys Leu Tyr Asp Glu Ile Leu
            180                 185                 190
Ser Arg Ile Thr Asp Thr Ser Ala Asp Leu Glu Val Arg Gln Arg Ala
        195                 200                 205
Ile His Val Phe Gly Val Leu Leu Ala Arg Thr Ser Gly Glu Lys Gly
    210                 215                 220
Ala Asp Phe Leu Ser Pro Asp Arg Arg Leu Lys Gly Leu Ser Val Leu
225                 230                 235                 240
Val Asp Arg Leu Arg Asn Glu Thr Thr Arg Leu Ala Ser Val Arg Ala
                245                 250                 255
Val Asp Asp Val Ala Val Leu Cys Thr Lys Glu Thr Asp Val Thr Ala
            260                 265                 270
Ser Trp Val Ser Glu Val Thr Val Glu Leu Gly Ala Gln Leu Arg Lys
        275                 280                 285
Ser Asp Arg Val Leu Arg Gly Ala Ser Leu Glu Thr Leu Arg Ser Leu
    290                 295                 300
Ala Met Asn Pro Ser Thr Arg Ala His Tyr Asp Gly Lys Thr Met Lys
305                 310                 315                 320
Glu Leu Glu Asp Cys Leu Leu Pro Leu Ile Ser Ala Asp Asp Phe His
                325                 330                 335
Phe Leu Ala Pro Ser Leu Ile Ile Leu Ala Lys Leu Ile Pro Gly Asn
            340                 345                 350
Ala Gln Leu Leu Val Asn Glu Gly Leu Val Ser Ala Leu Cys Ser Ile
        355                 360                 365
Val Leu Ala Pro Leu Val Gly Thr Val Leu Lys Ala Leu Leu Leu Leu
    370                 375                 380
Val Lys Val Ile Gly Glu Glu Gly Ala Gly Ala Glu Leu Met Gln Lys
385                 390                 395                 400
Leu Leu Arg Asp Val Gly Ile Asn Gly Asp Pro Ser Val Val Gly Arg
                405                 410                 415
Ala Ile Gly Thr Leu Leu Val His Gly Gly Ser Lys Leu Gly Val Lys
            420                 425                 430
Met Glu Asp Phe Leu Thr Glu Leu Gln Thr Ala Gln Asp Ala Gln Arg
        435                 440                 445
Lys Cys Leu Ala Leu Ala Ile Ile Gly Glu Ile Gly Leu Arg Met Gly
    450                 455                 460
Pro Ala Cys Ser Leu Thr Pro Asp Leu Phe Ile Thr His Phe Glu Ser
```

```
465                 470                 475                 480
Lys Ser Asp Lys Val Arg Leu Ala Ala Ala Thr Ala Leu Gly Asn Ala
                485                 490                 495
Ala Ala Gly Asn Val Lys Thr Tyr Met Pro Ile Ile Leu Asp Gly Leu
            500                 505                 510
Thr Lys Ser Asn Pro Arg Ser Tyr Leu Leu Leu His Ser Val Lys Glu
        515                 520                 525
Leu Leu Gln His Pro Glu Ile Val Arg Pro Asp Val Ala Pro Ile Ala
    530                 535                 540
Val Lys Leu Trp Gln Ala Leu Leu Leu Val Ser Glu Glu Glu Asp Asn
545                 550                 555                 560
Arg Ala Val Gly Ala Glu Cys Ile Gly Arg Leu Ala Leu Ile Asp Pro
                565                 570                 575
Val Ala Tyr Ile Pro His Phe Gln Val Ser Phe Thr Ser Phe Pro Lys
            580                 585                 590
Ser Leu Ser Leu Phe
        595
```

<210> 37026
<211> 161
<212> PRT
<213> A.fumigatus

<400> 37026

```
Ser Cys Val Arg Tyr Val Ile Leu His Ile Asp Ala Ser Ser Gln Phe
1               5                   10                  15
His Arg Thr Asn Ile His Gln Ser Ala Tyr Glu Thr Leu Tyr Ala Ser
            20                  25                  30
Leu Asp Thr Ala Phe Ser Val Ala His Val Ser Glu Phe Phe Asp Arg
        35                  40                  45
Ile Leu Ala Gly Leu Glu Asp Glu Gln Asp Ile Arg Thr Ile Cys Asn
    50                  55                  60
Leu Met Thr Ser Lys Leu Ile Pro Ile Ala Pro Glu Glu Thr Gln Arg
65                  70                  75                  80
Tyr Leu Asp Gln Leu Ser Glu Arg Tyr Ser Ala Val Leu Ser Phe Lys
                85                  90                  95
Pro Lys Asp Asn Ala Val Lys Gln Glu Leu Glu Lys Ala Gln Glu Ala
            100                 105                 110
Ser Met Gly Ile Leu Lys Val Thr Arg Glu Leu Ser Lys Ala Phe Pro
        115                 120                 125
Asn Ala Glu Val Ser Gly Asp His His Lys Trp Lys Ala Tyr Met Glu
    130                 135                 140
Trp Val Arg Lys Thr Phe Ala Thr Gln Leu Lys Ser Leu Glu Thr Glu
145                 150                 155                 160
Phe
```

<210> 37027
<211> 94
<212> PRT
<213> A.fumigatus

<400> 37027

```
Arg Gly Ile Val Glu Arg Tyr Gln Leu Ala Leu Met Thr Asn Lys His
1               5                   10                  15
Ile Phe Phe Ile Glu Trp Ser Leu Phe Ile Ser Gln Phe Leu Thr Ile
```

```
            20                  25                  30
Leu Asn Val Val His Cys Asn Val Thr Cys Ser Arg Cys Gly Phe Ser
        35                  40                  45
Cys Ser His Thr Tyr Tyr Val Val Lys Ile Ala Tyr Trp Ile Leu Leu
    50                  55                  60
Val Leu Gln Thr Ile Ser Thr Phe Val Thr Gly Pro Asp Arg Phe Lys
65                  70                  75                  80
Arg Leu Gln Leu Ala Ser Ser His Tyr Tyr Leu Ser Ser Gln
                85                  90
```

<210> 37028
<211> 162
<212> PRT
<213> A.fumigatus

<400> 37028

```
Phe Ile Ser Ser Phe Phe His Gln Thr Leu Leu Gln Met Leu Val Arg
1               5                   10                  15
Gly Asn Val Phe Ala Arg Met Ser Pro Asp Glu Lys His Glu Leu Val
            20                  25                  30
Glu Arg Leu Gln Ser Leu Asp Tyr Cys Cys Gly Phe Cys Gly Asp Gly
        35                  40                  45
Ala Asn Asp Cys Gly Ala Leu Lys Ala Ala Asp Val Gly Ile Ser Leu
    50                  55                  60
Ser Asp Ala Glu Ala Ser Val Ala Ala Pro Phe Thr Ser Arg Gln Phe
65                  70                  75                  80
Asp Ile Ser Cys Val Pro Gln Leu Ile Lys Ser Val Pro Thr His Phe
                85                  90                  95
Ser Phe Glu Val Asp Leu Leu Leu Ser His Gln Gln Gly Arg Thr Arg
            100                 105                 110
Cys Phe Gly Tyr Gln Leu Leu Leu Leu Gln Val His Glu Phe Val Leu
        115                 120                 125
Arg Asn Pro Ile Leu Glu Cys Gln Leu Ser Leu His Val Ser Ile Lys
    130                 135                 140
Pro Trp Arg Phe Ser Gly Lys Tyr Ser Lys His Phe Ser Gly Ser Ser
145                 150                 155                 160
Ser Arg
```

<210> 37029
<211> 82
<212> PRT
<213> A.fumigatus

<400> 37029

```
Arg Phe Glu Val Gly Trp Thr Gly Pro His Pro Val Leu Ser Arg Lys
1               5                   10                  15
Arg Pro Thr Ala Asn Leu Val Ser Arg Lys Val Leu Thr Pro Leu Leu
            20                  25                  30
Gly Gln Ile Ser Ile Cys Ile Leu Thr Gln Phe Val Ala Phe Lys Thr
        35                  40                  45
Val Gln Ser Gln Pro Trp Tyr Val Ser Met Tyr Ile Asn Leu His Arg
    50                  55                  60
Lys Pro Asp Phe Asn His Ser Gln Val Ser Thr Ser Lys Asn Arg Leu
65                  70                  75                  80
Lys Gln
```

<210> 37030
<211> 116
<212> PRT
<213> A.fumigatus

<400> 37030
Lys Arg Leu His His Ile Ser Cys Tyr Thr Val Val Pro Thr Pro Gly
1 5 10 15
Thr Ser Pro Ser Thr Ser Thr Leu Tyr Asn Ser Tyr Arg Tyr Val Gly
20 25 30
Cys Trp Val Asn Leu Leu Leu Leu Leu Ser Ser Ser Val Ile Thr Asn
35 40 45
His Tyr Arg Cys Val Phe Gly Glu Met Phe Lys Gly Lys Pro Ile Leu
50 55 60
Ala Gly Ser Ser Asp Leu Asn Gln Thr Gln Leu Ile Phe Asn Leu Val
65 70 75 80
Gly Thr Pro Thr Glu Glu Asn Met Pro Gly Trp Ser Ser Leu Pro Gly
85 90 95
Cys Glu Gly Val Lys Ser Phe Gly Tyr Lys Pro Gly Ser Leu Arg Glu
100 105 110
Val Phe Lys Glu
115

<210> 37031
<211> 86
<212> PRT
<213> A.fumigatus

<400> 37031
Ala Thr Ser Arg Glu Gly Arg Ala Ala Leu Val Thr Ser Phe Cys Cys
1 5 10 15
Phe Lys Tyr Met Ser Leu Tyr Ser Ala Ile Gln Phe Ser Ser Val Ser
20 25 30
Phe Leu Tyr Thr Ser Ala Ser Asn Leu Gly Asp Phe Gln Val Ser Ile
35 40 45
Val Ser Thr Ser Gln Gly Arg Arg Leu Ala Asn Ser Phe Ser Phe Cys
50 55 60
Ser Leu Thr Trp His Ser Phe Cys Arg Leu Gln Tyr Leu Val Ser Ile
65 70 75 80
Leu Lys His Leu Gln Tyr
85

<210> 37032
<211> 172
<212> PRT
<213> A.fumigatus

<400> 37032
Ile Phe Thr Gly Ser Leu Ile Leu Thr Ile His Arg Phe Gln Pro Pro
1 5 10 15
Arg Ile Asp Leu Asn Asn Ser Asn Ile Glu Asn Ser Glu Asn Thr Ala
20 25 30
Leu Phe Leu Ile Ser Ile Phe Gln Tyr Ile Phe Thr Ser Ile Val Leu
35 40 45

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```
Ser Val Gly Pro Pro Phe Arg Met Pro Met Arg Ala Asn Ser Glu Cys
    50                  55                  60
Tyr Ile Leu Ser Val Arg Ile Glu Leu Thr Lys Trp Ile Glu Pro Leu
65                  70                  75                  80
Ile Val Thr Ile Val Val Asp Thr Ile Val Ser Ser Tyr Met Leu Phe
                85                  90                  95
Asp Pro Pro Glu Trp Ile Ile Glu Thr Met Gln Leu Thr Phe Ile Ser
            100                 105                 110
Arg Gly Phe Ala Phe Trp Leu Phe Ala Leu Ala Thr Ser Thr Phe Leu
        115                 120                 125
Leu Ser Trp Val Thr Glu Arg Lys Phe Phe Pro Leu Leu Ser Arg Ala
    130                 135                 140
Ile Gly His Leu Lys Thr Arg Leu Arg Pro Gly Asn Arg Lys Gln Arg
145                 150                 155                 160
Arg Gln Tyr Lys Val Leu Leu Asp Glu Met Glu Thr
                165                 170
```

<210> 37033
<211> 64
<212> PRT
<213> A.fumigatus

<400> 37033

```
Phe Ser Cys Leu Ile Lys Thr Leu Ile Thr Arg Arg Glu Val Tyr Lys
1               5                   10                  15
Ala Arg Ser Lys Lys Asp Gly Ser Ile Val Ala Leu Lys Lys Ile Leu
            20                  25                  30
Met His Asn Glu Lys Asp Gly Val Arg Ser Phe Asp His Ser Gln His
        35                  40                  45
Tyr Gln Arg Leu Ile Glu Ser Ile Pro Val Ser Tyr His Gly Pro Ser
    50                  55                  60
```

<210> 37034
<211> 75
<212> PRT
<213> A.fumigatus

<400> 37034

```
Pro Val Ile Ala Ala Asn Leu Leu Ile Ser Asn Asn Gly Val Leu Gln
1               5                   10                  15
Ile Ala Asp Phe Gly Leu Ala Arg Pro Tyr Asp Glu Pro Pro Pro Glu
            20                  25                  30
Pro Gly Lys Gly Gly Gly Glu Ala Lys Arg Asp Tyr Thr Thr Leu Val
        35                  40                  45
Val Thr Arg Trp Tyr Arg Pro Pro Glu Leu Leu Leu Gln Leu Arg Arg
    50                  55                  60
Tyr Thr Thr Ala Ile Asp Met Trp Gly Val Gly
65                  70                  75
```

<210> 37035
<211> 83
<212> PRT
<213> A.fumigatus

<400> 37035

```
Leu Ser Thr Gly Asp Gly Arg Lys Lys Pro Ser Met Tyr Met Val Thr
```

```
1               5                   10                  15
Pro Tyr Met Glu His Asp Leu Ser Gly Leu Leu Glu Asn Pro Ala Val
            20                  25                  30
Asn Phe Thr Glu Pro Gln Ile Lys Cys Tyr Met Leu Gln Leu Leu Glu
        35                  40                  45
Gly Leu Lys Tyr Leu His Gly Val Phe Leu Pro Leu Phe His Thr Thr
    50                  55                  60
Gly Asp Arg Ser Asn Ser Arg Leu Gln Asn Arg Ile Leu His Arg Asp
65                  70                  75                  80
Met Lys Gly
```

<210> 37036
<211> 63
<212> PRT
<213> A.fumigatus

<400> 37036

```
Ile Ile Gln Tyr Gln Glu Arg Asn Arg Val His Leu Ala Lys Pro Phe
1               5                   10                  15
Cys Ile Ser Thr Tyr Lys Asp Glu Leu Ile Ile Val Gly Thr Met Leu
            20                  25                  30
Asp Pro Leu Phe Glu Pro Leu Glu Ser Gln Asp Ser Gly Phe Ser Phe
        35                  40                  45
Leu Lys His Ile Gly Pro Lys Asp Asp Pro Val Tyr Ala Leu His
    50                  55                  60
```

<210> 37037
<211> 115
<212> PRT
<213> A.fumigatus

<400> 37037

```
Ile Asp Ala Glu Pro Val Ala Glu Ile Arg Pro Phe Leu His Phe Gly
1               5                   10                  15
Asn Phe Leu Ser Phe Asn Phe His Leu Leu Val Leu Tyr Val Leu Leu
            20                  25                  30
Glu Gly Ser Thr Ala Thr Ala Ala Glu Ser Leu Thr Leu Ser Ser Asp
        35                  40                  45
Val Ala Thr Pro Val Ala Ala Ala Lys Ser Thr Leu Pro Thr Leu Val
    50                  55                  60
Leu Ile Cys Ala Arg Gly Ala Lys Ser Pro Val Pro Gln Val Arg Ser
65                  70                  75                  80
Gln Ser Asp His Ala Ser Gln His Ser Arg Ile Arg Ile Lys Ala Tyr
                85                  90                  95
Gly Ser Thr Cys Glu Glu Val Ile Ala Asn Ser Met His Gly Gly Phe
            100                 105                 110
Arg Leu His
        115
```

<210> 37038
<211> 82
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (17),(47)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37038
Glu Ser Asp Phe Ser Lys Ser Ser Thr Thr Pro Thr Ala Glu Lys Ile
1 5 10 15
Xaa Gly Ile Lys Leu Ser Ile Leu Ala Ser Gly Glu Ser Asn Thr Pro
20 25 30
Gly Ala His Ser Ser Gly Ser Thr Ser Ala Ser Ser Ser Ser Xaa Gly
35 40 45
Ser Ser Ser Ser Ser Ser Asp Lys Glu Ser Ala Ala Gly Thr Ile Ser
50 55 60
Val Pro Phe Val Gly Leu Leu Ser Ala Ala Ser Phe Met Ala Phe Phe
65 70 75 80
Met Leu

<210> 37039
<211> 996
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (12),(14),(15)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37039
Leu Ser Gly Thr Leu Arg Gly Ser Cys Ser Phe Xaa Val Xaa Xaa Lys
1 5 10 15
Met Ala Phe Cys Arg Tyr Phe Pro Gly Pro Tyr Ala Val Glu Asn Gly
20 25 30
Ala Arg Leu Ser Ala Thr Asp Gly Ser Asp Asn Val Asp Ser Asn Lys
35 40 45
Arg Tyr Phe Ser Arg Leu Thr Ala Leu Ala Ser Trp Arg Ser Glu Tyr
50 55 60
Ile Leu Arg Thr Arg Leu Leu Arg Ser Leu Ser Arg Gly Lys Pro Ala
65 70 75 80
Gln Phe Glu Pro Ser Lys Lys Tyr Gly Thr Val Arg Ala Ala Asn Val
85 90 95
Arg Asn Gly Ser Ala Val Ala Thr Tyr Thr Ser Gln Leu Met Tyr Pro
100 105 110
Val Ser His Leu Gly Ala Ser Phe Gly Ala Glu Asp Thr Arg Lys Glu
115 120 125
Pro His Phe Ile His Gly Ala Ser Glu Gln Gly Ile Ala Ser Ala Ser
130 135 140
Asp Pro Ser Thr Val Lys Val Gly Thr Trp Gly Leu Ser Asp His Gln
145 150 155 160
Met Phe Arg His Phe Ala Asp Leu Phe Ala Gly Asp Gly Glu Tyr Gly
165 170 175
Leu Gly Ser Gly Asp Ile Val Gly Gln Pro Asn Cys Met Asp Val Ser
180 185 190
Gln Pro Tyr Gly Met Ile Tyr Gly Glu Gly Cys Pro Gln Gly Arg Ser
195 200 205
Tyr Phe Ile Ser Thr Thr Glu Gln Arg Gly Arg Phe Leu Gly Leu Val

```
    210                 215                 220
Glu Ser Ser Ser Gln Pro Gln Gln Gly Val Pro Ala Leu Asn Pro Ala
225                 230                 235                 240
Thr Thr Ser Ile Thr Ala Val Trp Ile Ala Lys Ser Ala His Ile Leu
                245                 250                 255
Lys Met Thr Gly Gly Leu Val Gly Met Leu Ser Gly Ser Ser Val Gly
            260                 265                 270
Ile Leu Thr Ala Tyr Ala Leu Gly Pro His Pro Thr Tyr Glu Lys Arg
        275                 280                 285
Phe Glu Arg Gly Gln Val Thr Ala Lys Trp Ala Ile Cys Pro Gly Val
    290                 295                 300
Pro Ile Ile Gly Ile Ala Val Asp Asp Asn Tyr Ser Lys Asn Arg Ser
305                 310                 315                 320
Ser Arg Gly Arg Ile Trp Ala Thr Val Leu Asn Ala Leu Gly Glu Val
                325                 330                 335
Phe Tyr Leu Thr Glu Ile Pro Arg Gln Pro Asp Ile Ala Ala Lys Leu
            340                 345                 350
Ser Ala Glu Glu Ile Asp Gln Leu Ala Trp Lys Thr Gly Arg Ser Val
        355                 360                 365
Arg Trp Glu Leu Ile Glu Leu Ser Lys Arg Thr Ala Arg Pro Asp Pro
    370                 375                 380
Phe Asn Arg Asp Pro Val Asp Gly Ser Tyr Ser Pro Arg Ser Ser Ser
385                 390                 395                 400
Asp Ser Met Lys Leu Asp Glu Gln Gln Ile Ala Ala Glu Thr Lys Glu
                405                 410                 415
Ile Glu Arg Phe Leu Lys Phe Arg Pro Lys His Phe Arg Lys Val Cys
            420                 425                 430
Lys Gly Trp Asp Met Arg Arg Asp Leu Lys Val Asp Phe Ala Gly Asp
        435                 440                 445
Asp Gly Leu Gly Ala Gly Glu Ser Ile Met Val Ile Thr Arg Gly Ala
    450                 455                 460
Gly Glu Gly Glu Lys Ala Ser Ile Arg Arg Phe Thr Arg Thr Met Leu
465                 470                 475                 480
Lys Ser Asp Leu Pro Ala Ala Ser Gly Thr Leu Pro His Ile Thr Gly
                485                 490                 495
Asp Ala Thr Phe Arg Ser Leu Phe Gly Gly Pro Ser His Thr Pro Ile
            500                 505                 510
Pro Ser Ser Ala Ser Asp Ala Ser Ser Leu Pro Pro Ser Arg Thr Ser
        515                 520                 525
Ser Tyr Leu Ser Asp Thr Val Val Cys Ser Val Ala Asn Thr Glu Trp
    530                 535                 540
Arg Met Ser Asp Phe Gly Phe Gly Asp Arg Lys Ser Ile Arg Ile Thr
545                 550                 555                 560
Thr Ser Ala Leu Asp Ser Ser Thr Tyr Ala Val Leu Thr Ala Asp Glu
                565                 570                 575
Asp Pro Leu Leu Gly Met Ser Gly Gly Ser Gly Phe Ser Ser Ala Met
            580                 585                 590
Ser Ser Pro Leu Pro His Leu Lys Gln Ser Ser Ser Asn Pro Glu Ile
        595                 600                 605
Pro Gly Ser Arg Gly Arg Tyr Leu Ala Val Gly Thr Ala Thr Gly Leu
    610                 615                 620
Val Phe Val Trp Asp Ile Arg Ala Pro Ser Ala Lys Ser Thr Asp Ile
625                 630                 635                 640
Ile Asn Ser Val Ser Pro Leu Arg Ile Ile Gln Thr Asp Ser Pro Gln
                645                 650                 655
Val Ser Cys Val Ala Leu Thr Ser Leu Tyr Leu Val His Gly Gly Asn
```

660 665 670
Asp Gly Leu Val Gln Ala Trp Asp Pro Leu Ala Ser Thr Thr Arg Pro
675 680 685
Ile Arg Thr Ile Asn Ser Arg Phe Ser Ser Arg Ala Arg Arg Arg Leu
690 695 700
Val Gln Ala Glu Ala Ser Met His Gly Val Gly Asn Asn Phe Phe Ala
705 710 715 720
Cys Gly Ala Ile Cys Leu Asp Pro Asp Pro Thr Val Leu Arg Gly Met
725 730 735
Val Ala Leu Gly Thr His Leu Arg Tyr Trp Ala Phe Ser Ser Ser Gly
740 745 750
Ala Asp Gln Tyr Lys Ser Arg Lys Arg Arg Leu Arg Arg Gly His Arg
755 760 765
Gly Ser Asp Ile Thr Ala Glu Gly Gln Arg Phe Ser Ser Ser Gly Arg
770 775 780
Gly Ala Leu Lys Glu Tyr Ile Glu Asp Glu Lys Val Glu Ile Glu Arg
785 790 795 800
Gln Lys Val Ala Glu Val Lys Glu Arg Ala Tyr Leu Ser Asn Arg Phe
805 810 815
Gly Ile Asp Leu Leu Gly Ser Asp Val Ser Glu Asp Gln Leu Leu Ala
820 825 830
Tyr Ala Gln Leu Leu Ser Glu Glu Ala Phe Ala Ser Glu Ala Leu Lys
835 840 845
Arg Gly Glu Ala Val Val Ser Ser Val Val Ser Thr Ser Pro Ser Asp
850 855 860
Thr Ile Gly Arg Asn Asp Ser Ser Val Ala Ala Asp Asp Tyr Ser Ser
865 870 875 880
Ser Ser Ser Pro Tyr Gln Asp Thr Ile Asp Asp Asp Leu Ala Pro Asp
885 890 895
Ile Ala Glu Ala Ile Arg Leu Ser Leu Leu Asp Glu Gly Pro Ser Gln
900 905 910
Glu Lys Ser Pro Tyr Pro Val Lys Phe Ser Arg Lys Leu Gln Ser Ser
915 920 925
Tyr Gly Asn Ile Ser Pro Cys Glu Leu Ser Gly Ala Glu Ser Ser Arg
930 935 940
Gln Arg Glu Leu Asp Asp Leu Glu Leu Ala Ile Gln Leu Ser Leu Ala
945 950 955 960
Glu Ser Gln Ser Val Gly Gln Pro Glu Arg Gln Gln Asp Arg Glu Tyr
965 970 975
Pro Leu Leu Ser Thr Phe Ser Pro Ala Ser Asp Lys Gly Lys Gly Lys
980 985 990
Gly Arg Ala Leu
995

<210> 37040
<211> 168
<212> PRT
<213> A.fumigatus

<400> 37040
Leu Ser Ile Asp Val Gln Glu Ile Ile Val Arg Gly Met Asn Met Leu
1 5 10 15
Thr Cys Gln His Arg Arg Ala Ser Pro Ala Pro Leu Ala Ser Leu Val
20 25 30
His Pro Ala Gln Ala Cys Lys Glu Ile Phe Pro Val His Thr Arg Leu
35 40 45

```
Leu Gly Leu Ala Glu Leu Ile Gly Lys Asp Val Gln His Gln Leu Thr
    50                  55                  60
Ile Ala Ile Ser Val Asp Val Ala Val Gly Leu Lys Ile Gln Val Ser
65                  70                  75                  80
Phe Gln Leu Gly Ser Ile Asp Glu Val Ser Val Met Gly Gln Ala Asn
                85                  90                  95
Thr Val Gly Ala Val His Ile Lys Gly Leu Ser Leu Gly Ile Arg Ala
            100                 105                 110
Ala Ser Ser Ser Trp Val Ser Gln Met Ser Asn Ala His Glu Ala Trp
        115                 120                 125
Lys Val Arg His Ser Arg Thr Ile Ile Glu Asn Leu Gly Cys His Thr
    130                 135                 140
Ile Gly Leu Gln Leu Val Asp Ala Thr Thr Cys Arg Ala Arg Cys Asn
145                 150                 155                 160
Thr Arg Ser Ile Leu Ala Ser Ile
                165
```

<210> 37041
<211> 78
<212> PRT
<213> A.fumigatus

<400> 37041

```
Leu His Cys Phe Thr Pro Leu Gln Thr Phe Arg Leu Val Leu Leu Ser
1               5                   10                  15
Asn Ile Pro Ile Ile Met Phe Ser Ser Tyr Leu Ser Val Leu Ser Pro
            20                  25                  30
Tyr Thr Pro Tyr Ile Pro Phe Leu Ala Gln Val Pro Ile Phe Gln Gln
        35                  40                  45
Leu Leu Val Asp Phe Val Ser Thr Lys Pro Leu Val Ile Leu Asn Ser
    50                  55                  60
Ser Lys Ala Phe Leu Leu Gln Phe Tyr Leu Leu Pro Trp Arg
65                  70                  75
```

<210> 37042
<211> 95
<212> PRT
<213> A.fumigatus

<400> 37042

```
Leu Lys Gly Leu Pro Pro Pro Val Leu Pro Ala Ala Val Glu Met Asn
1               5                   10                  15
Arg Pro Thr Asn Asp Ser Leu His Ser Gln Glu Pro Pro Gln Pro Ser
            20                  25                  30
Glu Pro Ile Cys Leu Asp Asp Ser Asp Asp Asn Ser Ser Val Cys Asp
        35                  40                  45
Thr Asp Ser Asn Thr Asp Ser Ser Val Thr Ile Asp Asn Asp Pro Asp
    50                  55                  60
Arg Ser Phe Phe Leu Asp Asp Glu Lys Phe His Pro Gly Gly Gly Arg
65                  70                  75                  80
Arg Thr Pro Thr Pro Phe His Ile Gly Pro Gln Thr His Gln Asp
                85                  90                  95
```

<210> 37043
<211> 187
<212> PRT

<213> A.fumigatus

<400> 37043

```
Val Phe Gly Arg Tyr Arg Ala Leu Pro Arg Ala Ser Arg Leu Ile Leu
1               5                  10                  15
Asn Leu Gln Leu Leu Asp Arg Gly Gln Asp Ala Ala Gly Ile Ala Thr
            20                  25                  30
Cys Ala Ala Gly Gly Arg Ile Tyr Gln Leu Lys Ala Asn Gly Met Ala
        35                  40                  45
Ala Lys Val Phe Asn Asp Gly Ala Arg Val Ala Asp Leu Pro Gly Phe
    50                  55                  60
Met Gly Ile Gly His Leu Arg Tyr Pro Thr Ala Gly Ser Ser Ala Asn
65                  70                  75                  80
Ala Glu Ala Gln Pro Phe Tyr Val Asn Ser Pro Tyr Gly Ile Cys Leu
                85                  90                  95
Ala His Asn Gly Asn Leu Ile Asn Ala Pro Glu Leu Lys Arg Tyr Leu
            100                 105                 110
Asp Leu Glu Ala His Arg His Ile Asn Thr Asp Ser Asp Ser Glu Leu
        115                 120                 125
Met Leu Asn Ile Phe Ala Asp Glu Leu Ser Glu Thr Lys Lys Ala Arg
    130                 135                 140
Val Asn Arg Glu Asp Leu Phe Ala Ser Leu Ser Arg Met Tyr Glu Arg
145                 150                 155                 160
Cys Gln Gly Gly Trp Ala Cys Thr Ala Met Leu Ala Gly Glu His Ile
                165                 170                 175
His Thr Ser Tyr Asp Asn Phe Leu Asn Val Tyr
            180                 185
```

<210> 37044
<211> 240
<212> PRT
<213> A.fumigatus

<400> 37044

```
Phe Pro Glu Arg Leu Leu Thr Ile Met Val Gly Phe Gly Ile Leu Gly
1               5                  10                  15
Phe Arg Asp Ser Tyr Gly Ile Arg Pro Leu Val Leu Gly Ser Arg Pro
            20                  25                  30
Ser Leu Asp Gly Pro Gly Thr Asp Tyr Met Met Ala Ser Glu Ser Val
        35                  40                  45
Ala Leu His Gln Leu Gly Phe Ser Asn Phe Arg Asp Ile Gln Pro Gly
    50                  55                  60
Glu Ala Val Ile Ile Glu Lys Gly Gly Glu Pro Val Phe Arg Gln Val
65                  70                  75                  80
Ala Pro Lys Lys Ala Tyr Ala Pro Asp Ile Phe Glu Tyr Val Tyr Phe
                85                  90                  95
Ala Arg Pro Asp Ser Val Ile Asp Gly Ile Ser Val Tyr Arg Ser Arg
            100                 105                 110
Gln Arg Met Gly Asp Arg Leu Ala Ala Arg Ile Leu Asp Val Leu Gly
        115                 120                 125
Pro Glu Ile Val Lys Asp Ile Asp Val Val Ile Pro Ile Pro Glu Thr
    130                 135                 140
Ser Thr Thr Ser Ala Ala Ala Val Ala Arg Tyr Leu Asp Lys Pro Tyr
145                 150                 155                 160
Cys Gln Gly Phe Val Lys Asn Arg Tyr Val Phe Arg Thr Phe Ile Met
                165                 170                 175
```

```
Pro Glu Gln Lys Thr Arg Gln Lys Gly Val Arg Arg Lys Leu Asn Ala
            180                 185                 190
Met Gln Ala Glu Phe Lys Asp Arg Asn Val Leu Leu Val Asp Asp Ser
        195                 200                 205
Ile Val Arg Gly Thr Thr Ser Arg Glu Ile Val Thr Met Ala Arg Glu
    210                 215                 220
Ala Gly Ala Lys Lys Val Tyr Phe Ala Ser Cys Ala Pro Glu Ile Thr
225                 230                 235                 240
```

<210> 37045
<211> 666
<212> PRT
<213> A.fumigatus

<400> 37045

```
Thr Thr Leu Ile Val Val Leu Gly Gly Ala Gly Glu Asn Val Pro Thr
1               5                   10                  15
Ser Arg Ala Thr Ala Ser Lys Ala Leu Gly Ser Leu Ile Glu Lys Leu
            20                  25                  30
Gly Glu Asp Ala Leu Pro Asp Leu Ile Pro Asn Leu Met Thr Thr Leu
        35                  40                  45
Lys Ser Asp Thr Gly Ala Gly Asp Arg Leu Gly Ser Ala Gln Ala Leu
    50                  55                  60
Ala Glu Val Leu Ala Gly Leu Gly Thr Thr Arg Leu Glu Glu Thr Leu
65                  70                  75                  80
Pro Thr Ile Leu Gln Asn Val Ser Ser Ser Lys Pro Ala Val Arg Glu
                85                  90                  95
Gly Phe Met Thr Leu Phe Ile Phe Leu Pro Ala Cys Phe Gly Asn Ser
            100                 105                 110
Phe Ala Pro Tyr Leu Ser Lys Val Ile Pro Pro Ile Leu Ala Gly Leu
        115                 120                 125
Ala Asp Asp Val Asp Ser Ile Arg Glu Thr Ser Leu Lys Ala Gly Arg
    130                 135                 140
Leu Leu Val Lys Asn Phe Ser Ser Lys Ala Ile Asp Leu Leu Leu Pro
145                 150                 155                 160
Glu Leu Glu Arg Gly Leu Ala Asp Asp Ser Tyr Arg Ile Arg Leu Ser
                165                 170                 175
Ser Val Glu Leu Val Gly Asp Leu Leu Phe Ser Ile Thr Gly Ile Thr
            180                 185                 190
Ala Lys Ala Asp Ala Glu Glu Ala Glu Glu Glu Ala Ala Gln Ala Gly
        195                 200                 205
Gln Ser Leu Leu Glu Val Leu Gly Glu Glu Arg Arg Asn Lys Val Leu
    210                 215                 220
Ser Ala Leu Phe Ile Cys Arg Cys Asp Thr Ser Gly Leu Val Lys Ser
225                 230                 235                 240
Ala Ala Met Ala Val Trp Lys Ser Leu Val Ala Ser Pro Lys Thr Leu
                245                 250                 255
Lys Glu Met Val Pro Thr Leu Ser Gln Phe Ile Ile Arg Arg Leu Gly
            260                 265                 270
Ser Ser Asn Met Glu His Lys Val Ile Ala Ser Asn Ala Leu Gly Asp
        275                 280                 285
Leu Ile Lys Lys Ala Gly Glu Ser Val Leu Ala Thr Leu Leu Pro Ser
    290                 295                 300
Leu Glu Glu Gly Leu Arg Thr Ser Pro Asp Val Asp Val Lys Gln Gly
305                 310                 315                 320
Ile Cys Ile Ala Leu Arg Glu Leu Ile Thr Ser Ala Ser Pro Glu Ala
```

```
                325                 330                 335
Leu Glu Asp Tyr Glu Lys Ile Leu Ile Ser Thr Val Arg Val Ala Leu
            340                 345                 350
Val Asp Ser Asp Glu Asp Val Arg Glu Ala Ala Ala Glu Ala Phe Asp
        355                 360                 365
Ala Leu Gln Gln Ile Leu Gly Lys Lys Ala Val Asp Gln Val Leu Pro
    370                 375                 380
His Leu Leu Met Leu Leu Arg Asn Asn Glu Asp Ala Glu Gln Ala Leu
385                 390                 395                 400
Ser Ala Leu Leu Thr Leu Leu Thr Glu Gln Thr Arg Ala Asn Ile Ile
                405                 410                 415
Leu Pro Asn Leu Ile Pro Thr Leu Ile Ser Ser Pro Ile Ser Ala Phe
            420                 425                 430
Asn Ala Arg Ala Ile Ala Ser Leu Ala Glu Val Ala Gly Ser Ala Leu
        435                 440                 445
Thr Arg Arg Leu Pro Ala Ile Leu Asn Ser Leu Met Asp Asn Ile Leu
    450                 455                 460
Ser Thr Thr Asp Glu Glu His Arg Glu Glu Leu Asn Ser Ala Phe Asp
465                 470                 475                 480
Ala Val Leu Val Ser Val Asp Glu Phe Asp Gly Leu Asn Val Val Met
                485                 490                 495
Asn Val Met Met Thr Leu Leu Lys His Asp Asp His Arg Arg Arg Ala
            500                 505                 510
Ser Ala Ala Leu His Leu Asn Lys Phe Phe Ser Glu Ala Glu Ile Asp
        515                 520                 525
Tyr Ser Arg Tyr Tyr Gln Asp Leu Ile Arg Val Leu Leu Ile Ser Phe
    530                 535                 540
Asp Asp Ser Asp Lys Glu Val Val Lys Ala Ala Trp Thr Ala Leu Ser
545                 550                 555                 560
Gly Leu Thr Ser His Met Arg Lys Glu Glu Met Glu Val Leu Thr Ile
                565                 570                 575
Pro Thr Arg Gln Val Leu Arg Gln Val Gly Val Pro Gly Ala Asp Leu
            580                 585                 590
Pro Gly Phe Ser Leu Pro Lys Gly Ile Thr Ala Ile Leu Pro Ile Phe
        595                 600                 605
Leu Gln Gly Leu Leu Asn Gly Asn Val Glu Gln Arg Thr Gln Ala Ala
    610                 615                 620
Leu Ala Ile Gly Asp Ile Ile Asp Arg Thr Asn Ala Asn Ser Leu Lys
625                 630                 635                 640
Leu Phe Val Thr Gln Ile Thr Gly Pro Leu Ile Arg Val Val Ser Glu
                645                 650                 655
Arg Ser Val Asp Ile Lys Cys Arg Leu Ile
            660                 665
```

<210> 37046
<211> 100
<212> PRT
<213> A.fumigatus

<400> 37046

```
Pro Glu Leu Ile Thr Gly Thr Lys Thr Asp Asp Met Gly Val Lys Asn
1               5                   10                  15
Ala Met Met Lys Ala Leu Gln Glu Val Val Gly Lys Ala Gly Ala Asn
            20                  25                  30
Met Ser Glu Ala Ser Lys Asn Ala Ile Leu Ala Leu Ile Asp Asp Asp
        35                  40                  45
```

```
Ala Ser Asp Gln Thr Gly Lys Leu Arg Ser Lys Ile Asp Glu Val Asn
    50                  55                  60
Val Ala Glu Leu Thr Phe Gln Ala Asp Gly Val Ala Ile Thr Asn Ala
65                  70                  75                  80
Lys Leu Leu Gly Ala Leu Val Lys Val Leu Pro Ala Ser Thr Ala Ser
                85                  90                  95
Pro Leu Ile Lys
            100
```

<210> 37047
<211> 88
<212> PRT
<213> A.fumigatus

<400> 37047

```
Pro Gly Leu Gly Ala Ile Phe Phe Thr Leu Asn Lys Leu Leu Glu Lys
1               5                   10                  15
Ile Pro Met Ala Val Lys Pro Phe Leu Pro Gln Leu Gln Arg Thr Phe
            20                  25                  30
Ala Arg Gly Leu Ala Asp Ser Thr Ser Glu Thr Leu Arg Asn Arg Ala
        35                  40                  45
Ala Lys Gly Leu Gly Ile Leu Ile Thr Leu Thr Pro Arg Val Asp Pro
    50                  55                  60
Leu Ile Ala Gly Arg Ser Ile Arg Leu Cys Asp Lys Met Ile Ala Ala
65                  70                  75                  80
Leu Ile Leu Ile Leu Asp Gln Asn
                85
```

<210> 37048
<211> 128
<212> PRT
<213> A.fumigatus

<400> 37048

```
Phe Leu Leu Gln Pro Phe Ile Ala Glu Asn Ser Val Leu Ala Ala Gly
1               5                   10                  15
Lys Phe Leu Leu Ile Glu Asp Glu Ser Arg Asn Phe Glu Thr Asn Lys
            20                  25                  30
Ala Ile Phe Glu Ala Leu Ala Pro Cys Ile Gln Ala Gly Val Pro Pro
        35                  40                  45
Asp Val Arg Arg Leu Thr Leu Val Val Leu Arg Thr Val Ser Arg Leu
    50                  55                  60
His Pro Glu Leu Thr Arg Pro His Leu Ala Leu Leu Ala Pro Pro Ile
65                  70                  75                  80
Phe Ser Cys Val Arg Asp Val Ile Ile Pro Val Lys Leu Ala Ala Glu
                85                  90                  95
Ala Ala Phe Leu Ser Leu Phe Ser Val Glu Glu Ser Glu Ser Ala Val
            100                 105                 110
Phe Asp Lys Tyr Met Ala Gly Pro Gly Ala Glu Leu Pro Pro Trp Thr
        115                 120                 125
```

<210> 37049
<211> 138
<212> PRT
<213> A.fumigatus

<400> 37049
Glu Val Cys Asn Phe Phe Phe Phe Cys Thr Tyr Leu Thr Lys Pro Leu
1 5 10 15
Pro Gln Gln Ala Tyr Ile Asp Phe Thr Lys Ser Thr Asn Val Val Glu
20 25 30
Asp Val Lys Ala Ala Thr Pro Gly Gly Leu Gly Ala His Ala Val Cys
35 40 45
Leu Leu Ala Val Ser Glu Lys Pro Phe Gln Gln Ala Thr Asp Tyr Val
50 55 60
Arg Ser Arg Gly Thr Ile Val Ala Ile Gly Met Pro Ala Gly Ala Tyr
65 70 75 80
Leu Lys Ala Pro Val Phe Asn Thr Val Val Lys Met Ile Thr Ile Lys
85 90 95
Gly Ser Tyr Val Gly Asn Arg Gln Asp Gly Val Glu Ala Ile Asp Phe
100 105 110
Phe Ala Arg Gly Leu Ile Asn Ala Pro Phe Lys Lys Ala Pro Leu Lys
115 120 125
Asp Leu Pro Arg Ile Phe Glu Leu Met Gly
130 135

<210> 37050
<211> 236
<212> PRT
<213> A.fumigatus

<400> 37050
Leu Ala Thr Pro Thr Ser Met Thr Ile Pro Asp Lys Gln Trp Ala Gln
1 5 10 15
Val Val Leu Glu Lys Gly Ser Pro Pro Val Tyr Lys Glu Ile Pro Val
20 25 30
Pro Lys Pro Gly Pro Asp Asp Ile Leu Val Lys Leu Arg Tyr Ser Gly
35 40 45
Val Cys His Thr Asp Leu His Ala Met Lys Gly Asp Trp Pro Leu Ala
50 55 60
Leu Lys Leu Pro Leu Val Gly Gly His Glu Gly Val Gly Val Val Val
65 70 75 80
Ala Lys Gly Glu Leu Val Thr Gly Phe Glu Ile Gly Asp His Ala Gly
85 90 95
Ile Lys Trp Leu Asn Gly Ser Cys Met Glu Cys Glu Phe Cys Lys Gln
100 105 110
Ser Glu Glu Pro Leu Cys Pro Arg Ala Thr Met Ser Gly Tyr Thr Val
115 120 125
Asp Gly Thr Phe Gln Gln Tyr Cys Val Ala Lys Ala Thr His Ala Ser
130 135 140
Lys Ile Pro Asn Gly Val Pro Leu Asp Ala Ala Ala Pro Ile Leu Cys
145 150 155 160
Ala Gly Leu Thr Val Tyr Lys Gly Leu Lys Glu Ser Gly Ala Arg Ala
165 170 175
Arg Ala Asp Ser Arg Asp Arg Gly Arg Arg Arg Trp Ser Arg Leu Ser
180 185 190
Arg Pro Ala Ile Arg Gln Ser Asp Gly Ile Ala Ser Arg Ser Asp Arg
195 200 205
Trp Arg Arg Arg Glu Ala Arg Asn Val Arg Glu Thr Arg Ser Arg Gly
210 215 220
Lys Arg Ser Ala Ile Phe Phe Phe Ser Ala Arg Thr
225 230 235

<210> 37051
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37051
Arg Asn Leu Ala Leu Gly Pro Gly Gln Thr Val Ala Ile Val Gly Ala
1 5 10 15
Gly Gly Gly Leu Gly Ser Leu Ala Gln Gln Tyr Ala Lys Ala Met Gly
20 25 30
Leu Arg Val Val Ala Ile Asp Gly Gly Glu Glu Lys Arg Glu Met Cys
35 40 45
Glu Lys Leu Gly Ala Glu Val Arg Gly Leu Gln Phe Phe Phe Phe Leu
50 55 60
His Val Pro Asn
65

<210> 37052
<211> 60
<212> PRT
<213> A.fumigatus

<400> 37052
Lys Ala Asp Asp Met Asn Tyr Thr Val Val Ile Asn Ser Ala Leu Trp
1 5 10 15
Gly Gly Ala Leu Leu Tyr Tyr Leu Leu Tyr Ala Arg Lys Phe Tyr Lys
20 25 30
Gly Pro Gln Thr Thr Val Gly Gln Pro Ser Ser Thr Leu Ser Glu Thr
35 40 45
Asn Leu Glu Lys Leu Asp Gly Glu Lys Gly Val Asn
50 55 60

<210> 37053
<211> 221
<212> PRT
<213> A.fumigatus

<400> 37053
Asp Gly Ala Val Trp Tyr Pro Gly Val Ser Val Ser Cys Ser Tyr Ser
1 5 10 15
Ser Cys Asp Gly Tyr Gln Pro Gly Glu Ser Val Gly Asn Cys Phe Trp
20 25 30
Ser Thr Asp Gly Ala Gly Lys Leu Val Val Leu Ser Gly Thr Pro Glu
35 40 45
Val Arg Ala Asp Asp Arg Gln Ile Tyr Tyr Asp Ala Leu Gly Lys Pro
50 55 60
Gly Ala Leu Gly Phe Met Ala Val Val Ala Val Val Gln Phe Phe Met
65 70 75 80
Gly Leu Ser Leu Val Leu Ala Ala Ser Arg Gln Ser Trp Ala Phe Ser
85 90 95
Arg Asp Gly Ala Leu Pro Phe Ser Ser Phe Phe Arg His Val Ser Lys
100 105 110
Arg Ile Arg Tyr Gln Pro Val Arg Met Ile Trp Gly Val Val Thr Ala
115 120 125
Ala Val Ile Ile Gly Leu Leu Cys Leu Ile Asn Ser Ala Ala Ser Asn

```
    130                 135                 140
Ala Leu Phe Ser Leu Ala Val Ala Gly Asn Asp Leu Ala Trp Leu Thr
145                 150                 155                 160
Pro Ile Phe Ala Arg Leu Val Trp Gly Gly Glu Arg Phe His Pro Gly
                165                 170                 175
Glu Phe Tyr Thr Gly Gln Leu Ser Lys Pro Ile Ala Val Thr Ala Ile
            180                 185                 190
Val Tyr Leu Phe Phe Ala Ile Val Leu Cys Met Phe Pro Thr Leu Gly
        195                 200                 205
Pro Gly Pro Thr Arg Lys Phe Phe Ile Ser Ser Gly Arg
    210                 215                 220
```

<210> 37054
<211> 392
<212> PRT
<213> A.fumigatus

<400> 37054

```
Leu Ser Arg Phe Phe Ala Pro Tyr Leu Arg Leu Ser Gly Phe Ser Met
1               5                   10                  15
Ala Asp Glu Asp Leu Lys Leu Ser Leu Pro Thr Pro Thr Ser Pro Pro
            20                  25                  30
Ser Leu Ser Ser Ser Val His Phe Tyr Pro Phe Ala Thr Ser Pro Asp
        35                  40                  45
Ile Ile Arg Ser Asn Glu Lys Asp Ile Phe Ile Thr Ser Ser Leu Val
    50                  55                  60
Asn Gln Ala Gln Ala Ile Ile Arg Ser Leu Arg Gly Ala Arg Phe Ala
65                  70                  75                  80
His Ile His Ser Asp Ala Ile Lys His Leu Thr Glu Ile Leu Tyr Phe
                85                  90                  95
Ser Leu Thr Thr Leu Ile Gly Asn Arg Thr Leu Gly Glu Glu Tyr Cys
            100                 105                 110
Asp Leu Val Gln Leu Glu Asp Asp Thr Leu Gln Leu Pro Ala Ile His
        115                 120                 125
Arg Arg Ala Gly Tyr Ile Leu Ser Ser Ile Leu Val Pro Trp Ala Leu
    130                 135                 140
Gln Arg Ile Leu Pro Gly Phe Arg Gln Arg Leu Arg Ala Lys Leu Glu
145                 150                 155                 160
Arg Ser Ile Ser Arg Gln Glu Leu Lys Ala Gln Gln Lys Ala Glu Glu
                165                 170                 175
Leu Arg Phe Thr Lys Lys Asn Ala Ser Lys Lys Pro Ser Phe Phe Thr
            180                 185                 190
Ala Leu Arg Leu Gln Lys Tyr Ile Leu Glu His Leu Asp Ser Ile Thr
        195                 200                 205
Ser Leu Ser Pro Ile Tyr Ala Leu Ser Ile Ala Thr Phe Tyr Phe Thr
    210                 215                 220
Gly Ser Tyr Tyr His Leu Ser Lys Arg Phe Trp Gly Leu Arg Tyr Val
225                 230                 235                 240
Phe Thr Lys Lys Leu Glu Glu Asn Glu Gln Arg Val Gly Tyr Glu Val
                245                 250                 255
Leu Gly Val Leu Leu Val Leu Gln Ile Ala Val Gln Gly Ile Leu His
            260                 265                 270
Ile Arg Lys Leu Gly Leu Ser Met Gln Gln Gly Gly Glu Gly Ile Glu
        275                 280                 285
Thr Glu Met Ala Gly Ser Lys Met Gln Asp Asp Ser Leu Ile Arg Ser
    290                 295                 300
```

```
Ile Gln Asn Pro Tyr Asn Leu Pro Leu Leu Pro Ala Ser Ala Ala Arg
305                 310                 315                 320
Tyr Asp Leu Ser Glu Asp Ser Asn Val Ile Pro Trp Ile Pro Ser Gly
                325                 330                 335
Gln Gln Ser Lys Cys Thr Leu Cys Leu Glu Leu Tyr Lys Asp Pro Ser
            340                 345                 350
Val Thr Thr Cys Gly His Val Phe Cys Trp Thr Cys Ile Arg Asp Trp
        355                 360                 365
Val Arg Glu Lys Pro Glu Cys Pro Leu Cys Arg Gln Glu Val Ile Pro
    370                 375                 380
Ser Lys Val Leu Pro Leu Arg Gly
385                 390

<210> 37055
<211> 64
<212> PRT
<213> A.fumigatus

<400> 37055
Leu Gln Val Tyr Tyr Gln Gln Ile Arg Val Gln His Asp Ile Pro His
1               5                   10                  15
Thr Pro Val Trp Asn Val Leu Leu Lys Lys Pro Arg Asp Thr Arg Arg
            20                  25                  30
Gln Ile Ser Lys Met His Ile Gln Met Leu Gly Cys Ile Ser Gly Phe
        35                  40                  45
Gln Asn Lys His Leu Ala Leu Lys Pro Lys Asn Ala Pro Pro Pro Ser
    50                  55                  60

<210> 37056
<211> 419
<212> PRT
<213> A.fumigatus

<400> 37056
Glu Cys Ser Met Ile Ser Pro Thr Arg Leu Cys Gly Thr Cys Phe Ser
1               5                   10                  15
Lys Ser Leu Gly Thr Pro Asp Ala Lys Phe Gln Arg Cys Ile Ser Arg
            20                  25                  30
Cys Trp Ala Ala Ser Pro Asp Phe Lys Thr Ser Thr Trp Leu Leu Ser
        35                  40                  45
Leu Lys Thr His Leu Arg Leu Pro Ser Ile Cys Leu Asn Leu Ala Gln
    50                  55                  60
Gln Ser Arg Gln Met Arg Pro Ala Pro Thr Ser Arg Thr Ala Val Lys
65                  70                  75                  80
Lys Tyr Asn Gly Leu Gln Asn Asp Leu Lys Ser Ser His Trp Leu Thr
                85                  90                  95
Gly Leu Trp His Gly Lys Gln Ser Tyr Met Arg Glu His Ala Phe Ser
            100                 105                 110
Thr Leu Ser Arg Glu Thr Val Gly Gly Asp Gln Arg Phe Ser Ser Thr
        115                 120                 125
Arg Pro Asp Glu Ser Gly Pro Gly Arg Leu Arg Met Asn Phe Cys Thr
    130                 135                 140
Thr His Pro Lys Arg Ser Phe Arg Lys Thr Leu Ile Ala Gln Ser Ile
145                 150                 155                 160
Ala Ser Pro Ser Asn Arg Lys Gly Ser Ser Gly His Thr Ser Gln Cys
                165                 170                 175
```

```
Gln Ser Tyr Ser Asn Ala Asp Val Ser Arg Ser Ile Gly Ser Gly Asp
            180                 185                 190
Glu Thr Arg Thr Glu Thr Ala Val Cys Glu Lys Arg Leu Val Ala Gln
        195                 200                 205
Gln Ser Leu Ala Leu Thr Ile Thr Pro Gly Pro Lys Phe Trp Ser His
    210                 215                 220
Arg Leu Arg Lys Ala Pro Ser Gly Arg Asp Ile Ile Val His Tyr Cys
225                 230                 235                 240
Lys Ser Leu Arg Lys Thr Glu Glu Val Ala Lys Tyr Phe Leu Asn Asp
                245                 250                 255
His Val Ile Gly Phe Asp Met Glu Trp Lys Pro Gln Ser Ser Arg Ser
            260                 265                 270
Ala Ser Ile Gln Asn Asn Val Ser Leu Ile Gln Ile Ala Asn Ala Glu
        275                 280                 285
Arg Ile Ala Leu Phe Gln Ile Ala Leu Phe Lys Pro Ala Arg Arg Pro
    290                 295                 300
Glu Asp Phe Ile Ser Pro Ser Leu Arg Lys Ile Leu Glu Ser Ser Glu
305                 310                 315                 320
Ile Thr Lys Ala Gly Val Ala Ile Lys Ala Asp Cys Thr Arg Leu Lys
                325                 330                 335
Asn Phe Leu Gly Ile Asn Val Arg Gly Ile Phe Glu Leu Ser His Leu
            340                 345                 350
Tyr Lys Leu Val Lys Tyr Cys Gln Ser Asp Pro Ala Leu Ile Asn Arg
        355                 360                 365
Arg Ser Val Asn Leu Ser Glu Gln Val Glu Glu His Phe Gly Leu Pro
    370                 375                 380
Leu Ala Lys Asp Asp Asp Val Arg Cys Gly Asp Trp Thr Thr Ala Leu
385                 390                 395                 400
Asn Tyr Arg Gln Val Gln Cys Glu Phe Thr Leu Asn Pro Ile Leu Phe
                405                 410                 415
Arg Val Tyr
```

<210> 37057
<211> 93
<212> PRT
<213> A.fumigatus

<400> 37057

```
Lys Ile Ile Ser Ser Cys Arg Ser Arg Lys Lys Arg Lys Val Val Arg
1               5                   10                  15
Val Leu Asn Gly Ala Asp Gln Gly Val Ile Leu His Leu Gly Thr Ser
            20                  25                  30
His Phe Ser Leu Asn Thr Phe Pro Pro Leu Leu His Thr Lys Thr Glu
        35                  40                  45
Phe Ser Asn Met Gln Asp Ala Leu Tyr Arg Asp Leu Lys Asp Lys Gln
    50                  55                  60
Asn Pro Gln Asn Leu Ile Pro Tyr Ser Leu Phe Ile Phe Leu Glu Phe
65                  70                  75                  80
Leu Arg Glu His Val Ala Gln Ser Pro Glu Ala Phe Arg
                85                  90
```

<210> 37058
<211> 96
<212> PRT
<213> A.fumigatus

<400> 37058
Arg Gln Gly Ser Glu Tyr Val Lys Glu Arg Val Arg Val Arg Val Leu
1 5 10 15
Ala Glu Ser Leu Ser Val Gly Gly Arg Gln Glu Ala Ser Ile Ala Lys
20 25 30
Asn Pro Asp Arg His Leu Lys Asp Val Leu Asp Ala Ala Gly Ala Glu
35 40 45
Phe Ala Asp Glu Arg Glu Glu Val Glu Ala Leu Thr Tyr Val Tyr Val
50 55 60
Ala Gly Gln Asp Arg Leu Glu Asp Ala Glu Trp Asp Phe Glu Ala Phe
65 70 75 80
Lys Arg Asp Lys Met Ala Trp Trp Val Asp Ala Asp Glu Ser Glu Trp
85 90 95

<210> 37059
<211> 607
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (596)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37059
Leu Ser Glu Arg Met Leu Leu Thr Trp Arg Arg Ser Asp Asp Glu Glu
1 5 10 15
Glu Asn Pro Pro Gln Gln Gln Cys Glu Lys Ile Ser Arg Lys Trp Gln
20 25 30
Arg Ser Val Glu His Tyr Ser Leu Gln Ser Leu Leu Cys Arg Ile Asn
35 40 45
Gly Phe Asn Arg Pro Leu Val Tyr Pro Arg Phe Gly Lys Lys Lys Ala
50 55 60
Glu Val Asp Gly Gln Asp Leu Glu Arg Leu Arg Asp Asn Glu Phe Leu
65 70 75 80
Asn Asp Asn Leu Ile Gly Phe Tyr Ile Arg Phe Leu Glu Asp His Leu
85 90 95
Glu Arg Asn Asn Lys Glu Val Ser Gln Arg Val Tyr Phe Phe Asn Ser
100 105 110
Tyr Phe Phe Ala Thr Leu Thr Asn Leu Pro Arg Gly Lys Gln Gly Ile
115 120 125
Asn Tyr Gln Gly Val Gln Lys Trp Thr Arg Asn Val Asp Ile Phe Ser
130 135 140
Tyr Asp Tyr Ile Val Val Pro Ile Asn Glu Ala Ala His Trp Tyr Val
145 150 155 160
Ala Ile Ile Cys Asn Leu Pro Lys Leu Pro Gly Ile Met Lys Glu Glu
165 170 175
Glu Val Ile Asp Gln His Ala Glu Glu Asp Ala Glu Pro Ser Ala Leu
180 185 190
Pro Lys Arg Asp Asp Ala Glu Asn Pro Asn Thr Pro Gln Thr Val Gly
195 200 205
Ile Met Ser Ser Asp Ser Gly Glu Ala Glu Thr Gly Ala Arg Ser Ala
210 215 220
Pro Asn Pro Glu Lys Glu Glu Leu Ala Arg Glu Ser Leu Ala Ala Met
225 230 235 240

```
Ser Leu Leu Asp Arg Lys Glu Met Lys Glu Arg Gly Glu Leu Glu Val
                245                 250                 255
Pro Pro Ser Asp Glu Glu Trp Pro Glu Lys Glu Glu Asn Pro Val Ser
            260                 265                 270
Ser Pro Ala Lys Leu Ser Ser Pro Pro Arg Asp Thr Glu Pro Ser Lys
        275                 280                 285
Gln Val Asn Ser Gln Asp Ala Arg Gln Ser Ser Ala Ser Gly Ser Gln
    290                 295                 300
Lys Ser Arg Lys Pro Lys Lys Lys Arg Gln Gly Pro Arg Tyr Glu Val
305                 310                 315                 320
Trp Gln Pro Thr Val Ile Thr Phe Asp Ser Leu Asp Leu Ser Arg Ser
                325                 330                 335
Pro Thr Ile Ser Val Leu Arg Asn Tyr Leu Arg Glu Glu Ala Gln Ser
            340                 345                 350
Lys Arg Gly Val Glu Ile Asp Thr Thr Leu Ile Lys Gly Met Lys Ala
        355                 360                 365
Gln Glu Ile Pro Leu Gln Pro Asn Tyr Ser Asp Cys Gly Leu Tyr Leu
    370                 375                 380
Leu Ala Tyr Val Glu Lys Phe Val Gln Asp Pro Asp Thr Phe Val Thr
385                 390                 395                 400
Lys Leu Leu Arg Arg Asp Met Arg Val Glu Asp Asp Trp Pro Leu Leu
                405                 410                 415
Arg Ser Gly Leu Leu Arg Ser Arg Leu Arg Lys Phe Leu Asp Glu Leu
            420                 425                 430
Tyr Asp Glu Gln Glu Gln Leu Ser Arg Glu Lys Ala Ala Glu Arg Ala
        435                 440                 445
Thr Met Val Asp Arg Gln Pro Ile Ser Tyr Leu Leu Gly Leu Gly Gly
    450                 455                 460
Lys Thr Asp Leu Ala Ala Glu Asn Met Glu Asp Ala Ser Ala Thr Arg
465                 470                 475                 480
Ser Glu Lys Leu Pro Ser Arg Asn Pro Pro Leu Glu Val Ser Gly Leu
                485                 490                 495
Glu Leu Ala Gln Lys Ala Lys Leu Gly Glu Ser Arg Ser Val Thr Arg
            500                 505                 510
Ser Ser Ser Arg Asp Gly Thr Pro Asp Ser Thr Ala Gln Ala Lys Met
        515                 520                 525
Ser Thr Pro Gln Thr Leu Ala Ala Ser Ala Ser Gly Ser Thr Thr Arg
    530                 535                 540
Lys Glu Val Val Glu Val Pro Arg Gln Ser Arg Thr Ser Ala Ile Gly
545                 550                 555                 560
Glu Cys His Ile Ala Leu Ser Pro Ser Arg Arg Arg Leu Ser Arg Gln
                565                 570                 575
Ala Ser Ala Ile Ser Gly Ser Gly Phe Lys Pro Cys Arg Arg Arg His
            580                 585                 590
Arg Ala Asn Xaa Asp Thr Ser Ser Ile Ser Glu Trp Gln His Cys
        595                 600                 605
```

<210> 37060
<211> 95
<212> PRT
<213> A.fumigatus

<400> 37060

```
Glu Ser Arg Asp Tyr Leu Gln Arg Ser Gly Asn Asp Ser Phe Asn Ala
1               5                   10                  15
Gln Asp Gln Cys Tyr Asp Asn Leu Arg Ile Ser Lys Asn Ala Trp Asp
```

```
            20                  25                  30
Thr Asn Leu Val Lys Val Arg Pro Arg Arg His Pro Asp Tyr Leu Pro
        35                  40                  45
Gly Pro Glu Asp Ser Leu Thr Pro Lys Ile Gly Gln Pro Ser Leu Pro
    50                  55                  60
Leu Arg Glu Leu Gly Ser Arg Trp Trp Trp Cys Ile Cys Cys His Ala
65                  70                  75                  80
Cys Cys Val His Leu Gly Val Ala Gly Arg Ala Tyr Ala Pro Thr
                85                  90                  95
```

<210> 37061
<211> 270
<212> PRT
<213> A.fumigatus

<400> 37061

```
Pro Asp Arg Pro Gln Leu Leu His Gly Leu Pro Glu Arg Ile Ser Pro
1               5                   10                  15
Pro Leu Leu Asp Pro Asp His Gly Leu Leu Arg Met Arg His Asp Arg
            20                  25                  30
Thr His Arg Leu Leu Val Pro Glu Asn Arg Thr Val Thr Pro Ser Leu
        35                  40                  45
Gly Pro Arg Arg His Trp Ile Pro Met Lys Lys Arg Ile Ser Leu Gln
    50                  55                  60
Ala Phe Trp Glu Arg Glu Arg Val Gly Gly Ser Pro Tyr Phe Pro Cys
65                  70                  75                  80
Leu Ile Phe Ile Pro Thr Leu His Leu Leu His Arg Ile Val Arg Thr
                85                  90                  95
Gly Ser Cys Arg Ala Ile Gly Leu Thr Arg Asn Gly Ser Ser Leu Val
            100                 105                 110
Phe Lys Arg Pro Leu Cys Glu Leu Val Asn Ser Arg His His His Val
        115                 120                 125
Leu Leu Trp Met Ser Arg Gln Arg Ile Pro Phe Pro Lys Thr Cys Trp
    130                 135                 140
Thr Gln Asn Pro Cys Thr Ser Arg Arg Met Asp Pro Leu Asn Leu Leu
145                 150                 155                 160
Pro Gln Arg Ser Pro Tyr Leu Leu Pro Val Arg His Ala Phe Glu Met
                165                 170                 175
Pro Ala Ser Thr Pro Lys Pro Ser Pro Arg Lys Lys Lys Pro Pro Ile
            180                 185                 190
Val Pro Phe Leu His Arg Asp Ser Ser Ile Lys Thr Phe Asn Tyr Ser
        195                 200                 205
Thr Gly Ala Glu Trp Asp His Ala Thr Arg Glu Lys Thr Met Glu Glu
    210                 215                 220
Phe Phe Asn Ala Phe Val Ser Arg Val Ser Gln Ala Gly Gln Glu Ser
225                 230                 235                 240
Phe Gly Leu Lys Glu Thr Val Glu Leu Tyr Lys Ser Arg Gly Glu Tyr
                245                 250                 255
Gly Tyr Pro Leu Asp Leu Gln Val Cys Ser Gln Leu Leu Gln
            260                 265                 270
```

<210> 37062
<211> 494
<212> PRT
<213> A.fumigatus

<400> 37062

```
Arg Thr Leu Lys Arg Asp His Glu Ile Ala Met Asp Asp Val Glu Arg
1               5                  10                  15
Gln Gln Arg Ala Glu Ile Glu Thr Val Arg Gln Glu Ser Arg Gln Gln
            20                  25                  30
Leu Gln Ala Leu Asp Asn Gln His Gln Asp Glu Leu Arg Glu Leu Arg
        35                  40                  45
Arg His Phe Glu Gln Gln Ile Asn Asp Glu Lys Ala Leu Arg Phe Gln
    50                  55                  60
Glu Ile Asn Gln Ile Thr Ser Gln Thr Ala Leu Asp Thr Gln Arg Ser
65                  70                  75                  80
Leu Leu Glu Leu Glu Arg Lys Asp Arg Glu Ile Ala Lys Leu Gln Gln
                85                  90                  95
Asn Leu Gln Ala Val Arg Glu Asp Leu Glu Arg Glu Arg Lys Ala Asn
            100                 105                 110
His Asp Leu Arg Gln Asn Leu Asp Thr Ala Ser Cys Asn Ser Val Thr
        115                 120                 125
Leu Glu Ser Ser Val Arg Ala Leu Lys Ala Arg Ile Glu Phe Leu Glu
    130                 135                 140
Ser Gly Arg Glu Glu Gln Ser Gln Ala Phe Glu Arg Leu Asn Gln Gln
145                 150                 155                 160
Met Asn Asp Ala Leu Ala Glu Thr Glu Ala Thr Arg Glu Lys Leu Arg
                165                 170                 175
Lys Glu Glu Thr Leu Arg Arg Lys Leu His Asn Gln Val Gln Glu Leu
            180                 185                 190
Lys Gly Asn Ile Arg Val Phe Cys Arg Val Arg Pro Ser Leu Glu Ser
        195                 200                 205
Glu Val Ala Glu Thr Ala Gln Ile Glu Tyr Pro Asp Gln Ser Asp Glu
    210                 215                 220
Cys Lys Glu Ile Cys Leu Leu Gly Pro Glu Glu Arg Ser Ala Leu Gly
225                 230                 235                 240
Thr Val Thr Arg Lys Asn Asn Ser Phe Thr Phe Asp Arg Val Phe Gly
                245                 250                 255
Pro Ser Thr Gln Asn Ala Glu Val Phe Glu Glu Ile Ser Gln Leu Val
            260                 265                 270
Gln Ser Ala Leu Asp Gly Tyr Asn Val Cys Ile Phe Cys Tyr Gly Gln
        275                 280                 285
Thr Gly Ser Gly Lys Thr Tyr Thr Met Ser Ser Leu Asp Gly Met Ile
    290                 295                 300
Pro Arg Ala Val His Gln Ile Tyr Gln Thr Ala Gln Ser Leu Glu Glu
305                 310                 315                 320
Lys Gly Trp Arg Tyr Thr Met Glu Gly Asn Phe Val Glu Val Tyr Asn
                325                 330                 335
Glu Asn Leu Asn Asp Leu Leu Gly Lys Ala Glu Glu Leu Asp Lys Lys
            340                 345                 350
Lys His Glu Ile Arg His Asp Met Gln Arg Cys Lys Thr Thr Ile Thr
        355                 360                 365
Asp Ile Thr Thr Val Arg Leu Glu Ser Pro Glu Met Val Glu Ser Met
    370                 375                 380
Leu Lys Arg Ala Ala Ala Asn Arg Ser Val Ala Ala Thr Lys Ala Asn
385                 390                 395                 400
Glu Arg Ser Ser Arg Ser His Ser Val Phe Ile Leu Lys Leu Leu Gly
                405                 410                 415
Glu Asn His Ile Thr Gly Glu Arg Ser Glu Gly Thr Leu Asn Leu Val
            420                 425                 430
Asp Leu Ala Gly Ser Glu Arg Leu Ser His Ser Gln Ala Thr Gly Glu
```

```
        435                 440                 445
Arg Leu Lys Glu Thr Gln Asn Ile Asn Arg Ser Leu Ser Cys Leu Gly
    450                 455                 460
Asp Val Ile Ala Ala Leu Gly Gln Gly Lys Glu Gly Gly His Ile Pro
465                 470                 475                 480
Tyr Arg Asn Ser Lys Val Cys Phe Leu Ser Pro Leu Val Asn
                485                 490
```

<210> 37063
<211> 263
<212> PRT
<213> A.fumigatus

<400> 37063

```
His Leu Thr Glu Arg Pro His Ile Leu Thr Val Thr Asp Thr Thr Arg
1               5                  10                  15
Ala Arg Ser Ala Thr Gln Ala Pro Glu Pro Ser Arg Ser Gly Thr Gly
            20                  25                  30
Ser Leu Pro Pro Ser Arg Pro Gly Thr Ser Met Gly Arg Val His Thr
        35                  40                  45
Arg Thr Asn Ser His Ala Ser Ser Thr Leu Thr Arg Ser Ala Ser Thr
    50                  55                  60
Ala Ser Arg Thr Thr Arg Thr Asn Phe Ser Ser Thr Val Gly Pro Gly
65                  70                  75                  80
Ser Arg Pro Pro Ser His Ala Pro Arg Pro His Thr Ser Leu Ala Gly
                85                  90                  95
Thr Arg Lys Pro Asn Gly His Ser Ile Thr Arg Pro Ala Thr Ser Leu
            100                 105                 110
Asp Thr His Glu Glu Glu Asp Phe Ala Ala Ser Ile Leu Gly Lys Arg
        115                 120                 125
Lys Gly Arg Arg Gln Ser Leu Phe Ser Leu Phe Asp Ile Tyr Ser His
    130                 135                 140
Pro Ala Ser Ile Thr Pro His Ser Lys Asp Arg Lys Leu Ser Cys Asp
145                 150                 155                 160
Trp Ser Asp Ser Gln Arg Lys Leu Leu Gly Ile Gln Glu Ala Pro Leu
                165                 170                 175
Arg Ile Gly Gln Leu Glu Ala Ser Pro Cys Pro Ala Leu Asp Glu Ser
            180                 185                 190
Ala Lys Asp Pro Val Ser Gln Asp Met Leu Asp Pro Lys Pro Val His
        195                 200                 205
Leu Ala Gln Asp Gly Pro Ile Lys Pro Pro Pro Ser Lys Ile Pro Val
    210                 215                 220
Ser Ser Pro Arg Glu Thr Arg Ile Arg Asp Ala Cys Ile Tyr Pro Lys
225                 230                 235                 240
Thr Phe Ser Gln Glu Lys Glu Thr Thr Tyr Arg Thr Ile Ser Ala Gln
                245                 250                 255
Arg Phe Phe Asp Gln Asp Val
            260
```

<210> 37064
<211> 109
<212> PRT
<213> A.fumigatus

<400> 37064

```
Leu Gly Leu Asn Pro Thr Ala Asp Pro Ser Lys Phe Ala Cys Phe Pro
```

```
1               5                   10                  15
Met Ala Asp Ser Glu Leu Trp Cys Arg Gln Ala Ser Ala Thr Cys Ala
            20                  25                  30
Arg Thr Ser Ser Ser Ile Gly Ser Phe Thr Asn Asn Ser Ser Arg Cys
        35                  40                  45
Phe Ser Met Tyr Pro Val Ser Thr Ser Pro Leu Met Lys Ser Gly Leu
    50                  55                  60
Leu Gln Thr Ala Leu Met Asn Ser Met Leu Val Ile Gly Pro Ala Thr
65                  70                  75                  80
Ser Tyr Ser Ser Lys Ala Ala Ala Ser Leu Arg Ile Ala Ser Ser Arg
                85                  90                  95
Val Ala Pro Arg Thr Ile Ser Phe Ala Ile Ile Gly Ser
            100                 105
```

<210> 37065
<211> 72
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (71)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37065

```
Leu Asn Leu Gln Asp Asp Leu Ala Glu Ala Ala Thr His Asp Ala Leu
1               5                   10                  15
Tyr Phe Asp Asp Pro Ser Leu Asp Val Glu Asp Leu Tyr Ser Asp Trp
            20                  25                  30
Asp Glu Leu Ser Asp Asp Tyr Tyr Asp Asp Asp Pro Thr Val Glu Lys
        35                  40                  45
Arg Arg Arg Met Ile Glu Ile Thr Ser Leu His His Gly Asp Gly Ser
    50                  55                  60
Ile His Gly Val Leu Trp Xaa Arg
65                  70
```

<210> 37066
<211> 89
<212> PRT
<213> A.fumigatus

<400> 37066

```
Pro Asp Tyr Arg Arg Val Gly Arg Thr Ala Ser Gln His Gly Ile Lys
1               5                   10                  15
Val Thr Thr Leu Tyr Thr Asp Pro Asp Arg Tyr Ala Gln His Ala Leu
            20                  25                  30
Ser Ser Pro Phe Ala Phe Asn Leu Gly Ser Val Ser Ala Tyr Leu Asp
        35                  40                  45
Gly Asp Arg Ile Ile Glu Ile Ala Lys Arg Glu Gly Cys Gln Ala Ile
    50                  55                  60
His Pro Gly Tyr Gly Phe Val Ser Val Cys Pro Arg Met Asn Asp Arg
65                  70                  75                  80
Arg Thr Leu Ile Ile Val Ile Tyr Ser
                85
```

<210> 37067

<211> 578
<212> PRT
<213> A.fumigatus

<400> 37067

```
Pro Ser Leu Ile Pro Glu Ser Gln Ser Lys Lys Ile Met Thr Ala Ala
1               5                  10                  15
Gly Val Pro Cys Val Pro Gly Tyr His Gly Ser Asn Gln Asp Val Asn
            20                  25                  30
Phe Leu Glu Ala Glu Ala Asp Lys Ile Lys Tyr Pro Val Leu Ile Lys
        35                  40                  45
Ala Val Lys Gly Gly Gly Gly Lys Gly Met Arg Ile Ala Arg Ser Lys
    50                  55                  60
Ala Glu Phe Gln Ala Gln Leu Gln Ser Ala Lys Ser Glu Ala Met Asn
65                  70                  75                  80
Ser Phe Gly Asp Asp His Val Leu Val Glu Lys Tyr Ile Thr Thr Pro
                85                  90                  95
Arg His Ile Glu Val Gln Ile Phe Ala Asp Lys Tyr Gly Asn Cys Val
            100                 105                 110
Ala Leu Gly Glu Arg Asp Cys Ser Ile Gln Arg Arg His Gln Lys Ile
        115                 120                 125
Leu Glu Glu Ser Pro Ala Pro His Leu Pro Asp Ala Thr Arg Lys Asp
    130                 135                 140
Ile Trp Ala Lys Ala Arg Ala Ala Ala Leu Ala Val Gly Tyr Glu Gly
145                 150                 155                 160
Ala Gly Thr Val Glu Phe Ile Phe Asp Asn Asp Thr Gly Glu Phe Phe
                165                 170                 175
Phe Met Glu Met Asn Thr Arg Leu Gln Val Glu His Pro Val Thr Glu
            180                 185                 190
Met Val Thr Gly Gln Asp Leu Val His Trp Gln Ile Lys Val Ala Glu
        195                 200                 205
Gly Ala Pro Leu Pro Leu Thr Gln Asp Gln Val Glu Ala Glu Met Ala
    210                 215                 220
His Arg Gly His Ala Ile Glu Ala Arg Ile Tyr Ala Glu Asn Pro Asp
225                 230                 235                 240
Gln Gly Phe Ile Pro Asp Ser Gly Arg Leu Leu His Val Arg Thr Pro
                245                 250                 255
Pro Thr Ser Glu Asp Val Arg Ile Asp Ala Gly Phe Val Ala Gly Asp
            260                 265                 270
Asp Val Ser Ala His Tyr Asp Pro Met Ile Ala Lys Leu Ile Val Arg
        275                 280                 285
Gly Ala Thr Arg Glu Glu Ala Ile Arg Lys Leu Ala Ala Ala Leu Glu
    290                 295                 300
Glu Tyr Glu Val Ala Gly Pro Ile Thr Asn Ile Glu Phe Ile Lys Ala
305                 310                 315                 320
Val Cys Arg Ser Pro Asp Phe Ile Lys Gly Glu Val Glu Thr Gly Tyr
                325                 330                 335
Ile Glu Lys His Arg Asp Glu Leu Phe Val Lys Asp Pro Ile Glu Asp
            340                 345                 350
Glu Val Leu Ala Gln Val Ala Leu Ala Cys Leu His His Asn Ser Glu
        355                 360                 365
Ser Ala Ile Gly Lys Gln Ala Asn Phe Glu Gly Ser Ala Val Gly Phe
    370                 375                 380
Ser Pro Ser Tyr Gln Val Arg Glu Met Thr Leu Ala Glu Met Thr Pro
385                 390                 395                 400
Ala Arg Lys Asp Gly Thr Lys Phe Asn Val Arg Val Lys Gln Thr Gly
```

```
                405                 410                 415
Asn Asn Val Phe Asp Ile Glu Val Gly Ser Arg Ile Phe Glu Gln Val
            420                 425                 430
Thr Ser His Ser Asp Pro Ala Ser Arg Val Val Thr Ser Phe Phe Pro
        435                 440                 445
His Thr Arg Leu Asp Thr Thr Val Ile Gln Asp Gly Asp Ser Val Val
    450                 455                 460
Ala Phe Gln Arg Gly Asn Gln Tyr Arg Leu Thr Ile Pro Arg Ala Lys
465                 470                 475                 480
Trp Met Glu Lys Ala Leu Gly Met Lys Asp Val Thr Asn Ser Val Leu
                485                 490                 495
Ala Pro Met Pro Cys Lys Val Leu Arg Val Glu Val Lys Ala Gly Asp
            500                 505                 510
Val Val Glu Lys Asp Gln Pro Leu Val Val Ile Glu Ser Met Lys Met
        515                 520                 525
Glu Thr Val Ile Arg Ser Pro Gln Lys Gly Thr Ile Ser Lys Val Val
    530                 535                 540
His Gln Lys Gly Val Gly His Ala Thr Leu Leu Phe Phe Leu Ser Leu
545                 550                 555                 560
Cys Phe Cys Phe Tyr Pro His Pro Gly Ile Val Pro Val Tyr Trp Ser
                565                 570                 575
Val Thr
```

<210> 37068
<211> 83
<212> PRT
<213> A.fumigatus

<400> 37068

```
Thr Pro Ser Pro Gly Asn Ile Tyr Ser Thr Ala Asn Pro Thr Ser Ala
1               5                   10                  15
Lys Asp Leu Ile Thr Pro Thr Ile Lys Gln Asp Thr Phe Thr Thr Gly
            20                  25                  30
Arg Gly Gly Ser Gly Asn Met Val Gln Tyr Asp Pro Glu Arg Pro Glu
        35                  40                  45
Ile Ala Arg Glu Leu Gln Asp Val Lys Ser Pro Pro Gln Arg Val Glu
    50                  55                  60
Glu Ala Pro His His Thr Gly Arg Gly Arg Val Cys Leu Phe Leu Ser
65                  70                  75                  80
Ser Pro Arg
```

<210> 37069
<211> 376
<212> PRT
<213> A.fumigatus

<400> 37069

```
Ser Pro Phe Gln Pro Glu Ser Ile Val Glu Asp Arg His Ser Ser Lys
1               5                   10                  15
Val Asn Leu Ser Ile Asn Lys Leu Leu Glu Val Glu Glu His Ile Trp
            20                  25                  30
Ser Pro Met Tyr Gly Leu Lys Gly Asn Ile Asp Ala Thr Val Gln Val
        35                  40                  45
Ala Cys Asn Asp Gly Glu Gly Asn Arg Asn Leu Val Val Pro Leu Glu
```

```
    50                  55                  60
Leu Lys Thr Gly Asn Arg Asp Thr Asn Gln Ala His Arg Ala Gln Thr
65                  70                  75                  80
Ala Leu Tyr Thr Leu Leu Leu Ser Asp Arg Tyr Gly Lys Leu Ser Ser
                85                  90                  95
Arg Asn Tyr Ser Pro Asp Phe Val Ser Leu Ile Leu Arg Phe Gln Asp
            100                 105                 110
Val Asp Val Thr Phe Gly Leu Leu Tyr Tyr Leu Glu Ile Ser Lys Ile
        115                 120                 125
Phe Arg Ile Arg Gly Val Arg His Glu Leu Leu Gln Met Ile Gln Glu
    130                 135                 140
Arg Asn Arg Leu Ala Gly Phe Val Arg Glu Arg Leu Gln Leu Pro Pro
145                 150                 155                 160
Met Val Lys Lys Pro Gly Met Cys Asn Arg Cys Tyr Ser Lys Thr Pro
                165                 170                 175
Cys Leu Ile Tyr His Lys Leu Ala Asp Asp Gly Asp Gly Glu Thr Ser
            180                 185                 190
Gly Leu Gly Asp Glu Phe Val Lys Ala Met Asp Tyr Leu Thr Pro Gln
        195                 200                 205
His Arg Asp Phe Phe Lys Lys Trp Asp Asp Leu Leu Thr Lys Glu Glu
    210                 215                 220
Gln Ser Met Met Arg Phe Lys Arg Glu Leu Trp Thr Leu Leu Ser Ser
225                 230                 235                 240
Glu Arg Glu Ala Leu Gly Arg Cys Phe Gly Asn Val Val Ile Gln Pro
                245                 250                 255
Gly Ser Ala Tyr Glu Asp Lys Glu Ser Thr Lys Ile Asn Arg Phe Arg
            260                 265                 270
Tyr Thr Phe Val Lys Lys His Pro Leu Pro Ser Phe Ser Phe Thr Glu
        275                 280                 285
Ser Gln Leu Thr Val Gly Glu Pro Ile Val Val Ser Asp Glu Lys Gly
    290                 295                 300
His Phe Ala Leu Ala Asn Gly Tyr Val Val Gln Val Ser Pro Lys His
305                 310                 315                 320
Ile Ile Val Ala Val Asp Arg Arg Leu His Asn Thr Arg Thr Lys Thr
                325                 330                 335
Lys Gly Phe Asp Ala Ser Lys Asn Gln Ser Phe Arg Gly Ile Ala Glu
            340                 345                 350
Leu Leu Gly Asp Gly Pro Leu Pro Ser Ser Tyr Phe Ser Arg Ala Gly
        355                 360                 365
Gly Gly Asp Ser Leu Ser Thr Gly
    370                 375
```

<210> 37070
<211> 209
<212> PRT
<213> A.fumigatus

<400> 37070

```
Phe Asp Pro Cys Ser Gly Pro Phe Gln Pro Arg Gly Glu Thr Leu Val
1               5                   10                  15
Gln Asp Glu Arg Thr Lys Asn Lys Lys Ala Val Ile Leu Arg Glu Ser
            20                  25                  30
Trp Phe Asp Ser Pro Cys Ser Lys Gly Ala Tyr Ile His Leu Thr Gly
        35                  40                  45
Asp Phe Asp Ala Ala Gly Gln Cys Ile Val Asp Asp Ala His Asn Met
    50                  55                  60
```

```
Ile Ile Leu His Pro Asp His Leu Ile Ser Ala Thr Val Val Ala Asp
65                  70                  75                  80
Ser Ile Ser Cys Gln Arg Arg Ala Val Leu Gln Asp Arg Ile Lys Asn
                85                  90                  95
Ser Ser Asp Ile Ser Lys Pro Gln Val Phe Gly Asn Ile Phe His Glu
            100                 105                 110
Phe Phe Gln Glu Ala Met Lys Val Asn Lys Trp Asp Leu Lys Ser Leu
        115                 120                 125
Arg Ala Leu Val Glu Ala Ile Leu Val Arg His Val Glu Asp Leu Tyr
    130                 135                 140
Leu Ile Gln Met Thr Val Pro Glu Ala Val Glu Tyr Met Met Ser Arg
145                 150                 155                 160
Val Pro Ala Leu Lys Gly Trp Ala Glu Val Phe Leu Arg Pro Thr Pro
                165                 170                 175
Ser Val Ser Ala Ser Cys Arg Ser Cys Asp Ala Leu Val Ile Asn Arg
            180                 185                 190
Pro Ser Ser Pro Asn Pro Ser Leu Lys Thr Gly Ile Ala Pro Arg Ser
        195                 200                 205
Ile
```

<210> 37071
<211> 632
<212> PRT
<213> A.fumigatus

<400> 37071

```
Ser Gln Ser Ile Gly Asp Cys Thr Ile Gln Glu Gln Arg Gln Arg Asp
1               5                   10                  15
Leu Met Arg Ala Lys Thr Asn His Ser Glu Ala Ser Arg Asn Phe Trp
            20                  25                  30
Glu Met Gly Pro Tyr Leu Gln Ala Thr Ser His Glu Pro Glu Glu Glu
        35                  40                  45
Ile Leu Tyr Arg Leu Asp Lys Asp Glu Phe Ser Asn Gly Met Ala Ile
    50                  55                  60
Val Arg Asn Asn Leu Ile Cys Met Met Glu Lys Asp Leu Phe Gln Ala
65                  70                  75                  80
Asn Arg Leu Arg Lys Leu Ile Val Glu Gly Glu Thr Pro Ile Phe Lys
                85                  90                  95
Pro Ser Pro Ser Ala Phe Pro Leu Ser Asp Ser Ala Lys Ala Ser Leu
            100                 105                 110
Asn Val Asp Gln Lys Arg Ala Ile Glu Lys Val Met Ser Ala Arg Asp
        115                 120                 125
Tyr Ala Leu Val Leu Gly Met Pro Gly Thr Gly Lys Thr Thr Thr Ile
    130                 135                 140
Ala His Ile Ile Arg Ala Leu Val Ala Gln Gly Lys Ser Val Leu Leu
145                 150                 155                 160
Thr Ser Tyr Thr His Thr Ala Val Asp Asn Ile Leu Leu Lys Ile Arg
                165                 170                 175
Asp Asp Asn Phe Arg Ile Leu Arg Ile Gly Ala Thr Ala Lys Val His
            180                 185                 190
Thr Glu Val Gln Gln Phe Val Asp Leu Ala Ala Val Pro Lys Ser Thr
        195                 200                 205
Val Glu Glu Leu Lys Ala Ser Tyr Glu Glu Ser Gln Val Val Ala Thr
    210                 215                 220
Thr Cys Leu Gly Val Asn His Asn Ile Phe Asn Arg Arg Val Phe Asp
```

```
225                 230                 235                 240
Tyr Cys Ile Val Asp Glu Ala Ser Gln Ile Thr Leu Pro Val Cys Leu
                245                 250                 255
Gly Pro Ile Arg Met Ala Arg Thr Phe Ile Leu Val Gly Asp His Tyr
            260                 265                 270
Gln Leu Pro Pro Leu Val Gln Asn Lys Gln Ala Gln Glu Gly Gly Leu
        275                 280                 285
Asp Val Ser Leu Phe Lys Leu Leu Ser Asp Ala His Pro Glu Ser Val
    290                 295                 300
Val Asn Leu Glu His Gln Tyr Arg Met Cys Glu Asp Ile Met Val Leu
305                 310                 315                 320
Ser Asn Asn Leu Ile Tyr Ser Gly Arg Leu Lys Cys Gly Thr Pro Ala
                325                 330                 335
Val Ala Ser Arg Ser Leu Asp Leu Pro Asn Ile Gly Gly Leu Lys Leu
            340                 345                 350
His His Ile Asn Gln Leu Pro Gln Ser Ser Asn Gln Arg Gln Phe Cys
        355                 360                 365
Leu Gly Thr Asn Gln Gly Arg Cys Trp Leu Arg Asp Val Leu Asp Pro
    370                 375                 380
Ser Ala Lys Asn Arg Phe Ile Asn Thr Asp Thr Leu Gly Ile Pro Ala
385                 390                 395                 400
Arg Asp Val Ala Asn Gly Thr Met Ile Val Asn Pro Thr Glu Ser Ser
                405                 410                 415
Ile Cys Ala Gln Leu Val Glu Ser Leu Val Ser Cys Gly Ile Pro Ala
            420                 425                 430
Arg Asn Ile Gly Val Ile Thr Phe Tyr Arg Ser Gln Leu Ser Leu Leu
        435                 440                 445
Lys Gln Asn Leu Arg Arg Tyr Leu Pro Gln Leu Glu Met His Thr Ala
    450                 455                 460
Asp Lys Phe Gln Gly Arg Asp Lys Glu Val Val Leu Leu Ser Cys Val
465                 470                 475                 480
Arg Ser Asn Val Asp Asn Asn Val Gly Asp Leu Leu Arg Asp Trp Arg
                485                 490                 495
Arg Ile Asn Val Ala Phe Thr Arg Ala Arg Thr Lys Leu Leu Val Ile
            500                 505                 510
Gly Ser Lys Ser Thr Leu Arg Asp Gly Asn Asp Leu Leu Arg Lys Tyr
        515                 520                 525
Ile Ser Met Val Glu Glu Arg Arg Trp Val Tyr Asp Leu Pro Lys Cys
    530                 535                 540
Ala Leu Glu Ser His Ile Phe Asn Cys Asp Val Ser Phe Pro Pro Ser
545                 550                 555                 560
Leu Asp Ala Asp Lys Ser Pro Ser Lys Gly Ser Arg Ser Leu Pro Lys
                565                 570                 575
Thr Ser Pro Ser Pro Lys Ala Pro Arg Asn Pro Leu Ser Pro Ile Glu
            580                 585                 590
Gly Gln Pro Ser Arg Arg Gly Leu Lys Lys Pro Ala Lys Thr Gly Ala
        595                 600                 605
Lys Leu Leu Ser Gly Ser Asn Val Ile Gly Asn Arg Pro Val Leu Gln
    610                 615                 620
Asp Val Val Asn Glu Leu Ile Gly
625                 630
```

<210> 37072
<211> 71
<212> PRT
<213> A.fumigatus

<400> 37072
Val Ile Trp Val Lys Tyr Asn His Ile Met Gly Ile Ile Asp Asn Ala
1 5 10 15
Leu Pro Cys Cys Ile Glu Ile Ala Gly Gln Val Asn Ile Cys Ala Leu
20 25 30
Thr Ala Trp Ala Val Lys Pro Arg Phe Ser Gln Asp Tyr Cys Leu Phe
35 40 45
Val Phe Ser Ser Leu Ile Leu Asn Gln Arg Phe Thr Ala Gly Leu Glu
50 55 60
Gly Thr Ala Thr Gly Ile Glu
65 70

<210> 37073
<211> 83
<212> PRT
<213> A.fumigatus

<400> 37073
Thr Leu Val Cys Glu Thr Cys Ala Ser Asn Pro Ser Arg Leu Asn Ala
1 5 10 15
Val Leu Met Thr Pro Arg Ala Thr Gly Lys Tyr Gly Ala Gln Val Asn
20 25 30
Gly Ala Leu Thr Ala Ala His Gln Pro Thr Asp Asp Ala His Ile Arg
35 40 45
Glu Ser Leu Phe His Cys Asn Gly Gly Ala Asp Gly Asp Ile Ser Phe
50 55 60
Ile Lys Tyr Cys Gly Gly Gly Cys Lys Asn Gly Gly Asn Asp Arg Ser
65 70 75 80
Asp Tyr Cys

<210> 37074
<211> 292
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (273)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37074
Val Gln Leu Gly Arg Thr Arg Gly Ala Glu Met Ile His Glu Ser Leu
1 5 10 15
Ala Leu Cys Gly Leu Pro Ile Ser Val Leu Val Val His Cys Leu Pro
20 25 30
Leu Val Ala Phe Gln Arg His Gln Thr Ser Leu Leu Ser Leu Cys Ile
35 40 45
Val Tyr Lys Met Ala Tyr Asn Leu Ser Asp Ile Leu Lys Ser Ala Ser
50 55 60
Val Asp Leu Ala Pro Tyr Glu Asp Leu Tyr Lys Tyr Phe His Ala His
65 70 75 80
Pro Glu Leu Ser Leu Gln Glu Glu Ala Thr Ser Gln Thr Val Ala Ala
85 90 95
His Leu Ser Gln Phe Asn Ala Tyr Glu Ile His Thr Asn Ile Gly Gly

```
            100                 105                 110
Tyr Gly Leu Ala Cys Val Leu Arg Asn Gly Asp Gly Lys Asn Val Leu
        115                 120                 125
Leu Arg Ala Asp Met Asp Ala Leu Pro Val Lys Glu Leu Thr Gly Leu
    130                 135                 140
Pro Tyr Ala Ser Thr Val Arg Met Arg Asp Ala Glu Gly Val Glu Lys
145                 150                 155                 160
Thr Val Met His Ala Cys Gly His Asp Met His Met Thr Cys Leu Leu
                165                 170                 175
Ala Ala Ala Glu Thr Leu Ala Asn Met Gln His Ala Trp Ser Gly Thr
            180                 185                 190
Leu Ile Val Leu Phe Gln Pro Asn Gln Glu Pro Gly Gly Gly Ala Gln
        195                 200                 205
Gly Asp Gly Gly Thr Met Ala Ser Asn Ser Asn Asn Pro Arg Ala Gly
    210                 215                 220
Ile Met Ser Leu Ala Ser Thr Ser Cys Ala Cys Gly Pro Lys Ala Leu
225                 230                 235                 240
Ala Ala Ala Arg Glu Pro Ser Trp Leu Leu Leu Ile Val Ser Ser His
                245                 250                 255
Arg Leu Trp Ala Arg Trp Pro Trp Ile Pro Ala Ala Ser Asp Arg Arg
            260                 265                 270
Xaa Cys Ala Ser Arg Cys Ala His Cys Cys Gln Thr Ala Gly Asp Cys
        275                 280                 285
Glu Pro Arg Asp
    290
```

<210> 37075
<211> 219
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (21)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37075

```
Ser Gln Val Thr Val Tyr Gly Arg Gly Gly His Gly Ser Leu Pro His
1               5                   10                  15
Gln Thr Val Asp Xaa Ala Leu Leu Ala Ala His Ile Val Val Arg Leu
            20                  25                  30
Gln Gly Ile Val Ser Arg Glu Ile Asp Pro Ser Asp Phe Ala Val Val
        35                  40                  45
Thr Val Gly Ser Leu Gln Ala Gly Gln Thr Glu Asn Ile Ile Ala Asp
    50                  55                  60
Arg Ala Glu Val Gly Leu Asp Phe Arg Thr Val Lys Leu Glu Thr Arg
65                  70                  75                  80
Gln Lys Ile Leu Ser Ala Val Gln Arg Ile Val Glu Ala Glu Cys Met
                85                  90                  95
Ala Ser Gly Ser Pro Lys Pro Pro Val Phe Thr Pro Thr Arg Arg Phe
            100                 105                 110
Pro Pro Thr Val Asn Asp Glu Gln Val Ala Ser Gln Leu Ala Ala Ser
        115                 120                 125
Phe Ala Gln His Phe Glu Asp Phe Asp Gly Asp Thr Pro Arg Thr Asn
    130                 135                 140
Val Ser Glu Asp Phe Ser Thr Leu Gly Thr Cys Arg Gly Ile Pro Cys
```

```
145                 150                 155                 160
Cys Phe Trp Val Leu Gly Gly Ile Asp Ala Glu Leu Trp Asp Gln Ala
                165                 170                 175
Val Arg Glu Asp Ser His Thr Asp Glu Ile Pro Gly Asn His Ser Ala
            180                 185                 190
Leu Phe Ala Pro Val Ile Gln Pro Thr Met Arg Ala Gly Val Asp Ala
        195                 200                 205
Leu Cys Leu Ala Ala Leu Thr Phe Leu Arg Lys
    210                 215
```

<210> 37076
<211> 183
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (50)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37076

```
Ile Lys Ile Arg Ser Leu Ser Ile Val Val Gly Leu Met Leu Val Phe
1               5                   10                  15
Arg Asn Gln Thr Ser Tyr Asn Arg Phe Trp Asp Gly Arg Asn Gly Met
            20                  25                  30
Asn Thr Ile Val Thr Cys Val Arg Asn Leu Val Arg Thr Ile Ile Thr
        35                  40                  45
Asn Xaa Tyr Ser Glu Arg Gly Pro Pro Thr Ala Ala Glu Gln Gln Asp
    50                  55                  60
Val Glu Arg Thr Ile Ser Val Ile Met Ala Ile Pro Tyr Ala Val Lys
65                  70                  75                  80
Asn His Leu Arg Asp Glu Trp Gly Ala Ala Trp Ala Leu Gly Ser Asp
                85                  90                  95
Val Asn Glu Asn Gly Thr Ala Val Tyr Asp Ala Asp Tyr Ala Ser Leu
            100                 105                 110
Leu Pro Val Gly Leu Glu Gly His Glu His Asp Gly Leu Gly Leu Pro
        115                 120                 125
Phe Gln Leu Thr Phe Phe Val Asp Gly Phe Ile Lys Arg Gly Val Glu
    130                 135                 140
Arg Gly Trp Phe Asn Ala Pro Gly Ala Ser Gln Met Gln Ala Gln Leu
145                 150                 155                 160
Asn Thr Leu Thr Asp Ala Tyr Gly Arg Met Glu Thr Ile Lys Leu Thr
                165                 170                 175
Pro Ile Pro Val Ala His Leu
            180
```

<210> 37077
<211> 109
<212> PRT
<213> A.fumigatus

<400> 37077

```
Met Thr Gly Ile Tyr Cys Thr Asn Asp Ser Thr His Gln Val Met Ile
1               5                   10                  15
Gln Thr Arg Ala Thr Leu Val Arg Ala Ala Asp Tyr Lys Arg Tyr Glu
            20                  25                  30
```

```
Glu Lys Ala Gly Arg Ser Phe Asn Arg Ala Met Ile Cys Val Gln Ser
        35                  40                  45
Phe Gly Ala His Gln Leu Ser Met Val Gln Gln Ser Ile Val Val Met
    50                  55                  60
Ile Lys Lys Ser Tyr Leu Gln Ser Met Lys Leu Tyr Asn Pro Val Asn
65                  70                  75                  80
Ile Ile Glu Val Leu Gly Asp Asn Asp Val Asp Asp Phe His Val Pro
                85                  90                  95
Glu Tyr Ile Thr Glu Thr Arg Arg Pro Arg Thr Ile Ser
            100                 105
```

<210> 37078
<211> 600
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (20),(80)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37078

```
Gln Val Ala Thr Ser Ala Cys Glu Tyr Leu Gly Leu Asn Asn Gln Ile
1               5                   10                  15
His Pro Ser Xaa Arg Pro Leu Lys Leu Pro Arg Leu Pro Phe Pro Lys
            20                  25                  30
Thr Met Ala Thr Asn Asp Gln Pro Val Val Ile Val Gly Ala Gly Leu
        35                  40                  45
Ala Gly Leu Val Ala Ala Tyr Glu Leu Ser Asn Arg Asn Ile Arg Ser
    50                  55                  60
Ile Ile Val Asp Gln Glu Ser Glu Ala Asn Leu Gly Gly Gln Ala Xaa
65                  70                  75                  80
Trp Ser Leu Gly Gly Ile Phe Cys Val Asn Ser Ser Asn Gln Arg Arg
                85                  90                  95
Leu Gly Ile Arg Asp Ser Arg Glu Leu Ala Met Glu Asp Trp Phe Ser
            100                 105                 110
Ser Ala Ala Phe Asp Arg Glu Thr Asp His Trp Pro Arg Lys Trp Ala
        115                 120                 125
Glu Ala Phe Val Asn Phe Ala Thr Asp His Met Glu Ser Tyr Leu Gly
    130                 135                 140
Ala Leu Gly Val Arg Phe Val Ser Val Gly Trp Ala Glu Arg Gly Ser
145                 150                 155                 160
Gly Gln Ala Gly Gly His Gly Asn Ser Val Pro Arg Phe His Leu Thr
                165                 170                 175
Trp Gly Thr Gly Pro Ala Ile Val Glu Ala Phe Ala Gly Pro Val Lys
            180                 185                 190
Glu Ala Ala Lys Lys Gly Leu Val Glu Phe Arg Phe Arg His Gln Val
        195                 200                 205
Asp Glu Ile Ile Val Asp Gly Glu Thr Gly Ala Ala Val Gly Val Arg
    210                 215                 220
Gly Gln Val Leu Glu Pro Thr Asp Val Glu Arg Gly Val Ala Ser Ser
225                 230                 235                 240
Arg Lys Ser Val Gly Tyr Phe Glu Leu Arg Gly Ala Ala Val Leu Val
                245                 250                 255
Ala Ser Gly Gly Ile Gly Gly Asn Leu Asp Leu Val Lys Lys Tyr Trp
            260                 265                 270
```

```
Pro Val Asp Arg Leu Gly Pro Lys Val Pro Gln Ser Phe Val Leu Gly
        275                 280                 285
Val Pro Ala His Val Asp Gly Arg Met Ile Asp Ile Ser Arg Lys Ala
    290                 295                 300
Gly Ala Ser Val Val Asn Ser Asp Arg Met Trp His Tyr Thr Glu Gly
305                 310                 315                 320
Leu Thr Asn Trp Asn Pro Ile Trp Pro Lys His Gly Ile Arg Val Ile
                325                 330                 335
Pro Gly Pro Ser Ser Leu Trp Leu Asp Ala Thr Gly Lys Arg Leu Pro
            340                 345                 350
Pro Phe Leu Tyr Pro Gly Cys Asp Thr Leu Ala Thr Leu Arg His Ile
        355                 360                 365
Cys Ser Thr Gly Tyr Asp Tyr Thr Trp Phe Val Leu Asn Lys Ser Ile
    370                 375                 380
Ile Ala Arg Glu Phe Ala Leu Ser Gly Ser Glu Gln Asn Pro Asp Ile
385                 390                 395                 400
Thr Gly Lys Ser Ile Leu Leu Leu Leu Gln Arg Ile Phe Gly Ser Asn
                405                 410                 415
Gly Thr Gly Pro Val Gln Val Phe Met Lys Asn Gly Glu Asp Phe Ile
            420                 425                 430
Val Glu Thr Ser Leu Asn Asp Leu Leu Lys Arg Met Asp Asn Leu Gly
        435                 440                 445
Gln Lys His Gly Gly Pro Pro Leu Asp Val Asn Gln Val Lys Arg Glu
    450                 455                 460
Ile Glu Leu Arg Asp Ala Gln Val Asp Asn Ser Tyr Thr Lys Asp Ala
465                 470                 475                 480
Gln Leu Met Leu Ile Gln Asn Ala Arg Asp Phe Trp Pro Asp Lys Phe
                485                 490                 495
Ser Arg Val Val Lys Pro His Lys Leu Leu Asp Gln Ser Tyr Gly Pro
            500                 505                 510
Leu Ile Ala Val Arg Met Asn Leu Leu Thr Arg Lys Thr Leu Gly Gly
        515                 520                 525
Leu Glu Thr Asp Leu Ser Ala Asn Val Leu Arg Gln Asp Gly Ser His
    530                 535                 540
Phe Thr Asn Leu Tyr Ala Ala Gly Glu Val Ala Gly Phe Gly Gly Gly
545                 550                 555                 560
Gly Val His Gly Tyr Asn Ser Leu Glu Gly Thr Phe Leu Gly Gly Cys
                565                 570                 575
Ile Phe Ser Gly Arg Thr Ala Gly Ile Ala Met Ala Asp Lys Leu Ala
            580                 585                 590
Lys Ala Pro Ala Thr Gln Ser Ser
        595                 600
```

<210> 37079
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37079

```
Phe Val Leu Lys Leu Leu Asp Gln Ile Gln Gln Leu Ser Ala Ser Val
1               5                   10                  15
Ser Val Gly Ala Asp Ile Thr Arg Tyr Gln Gln Asp Ile Val Val Phe
            20                  25                  30
Leu Arg Leu Ser Arg Ala Val Ala Gly Gly Ile Thr Ala Arg Ser Asn
        35                  40                  45
Met Gln Phe Thr Lys Leu Ser Lys Tyr Val Gln Leu Ile Arg Leu Pro
```

```
    50                  55                  60
Lys Glu Cys Ala
65

<210> 37080
<211> 335
<212> PRT
<213> A.fumigatus

<400> 37080
Gly Met Glu Thr Val Leu Leu Lys Ala Met Gln Arg Ala Lys Tyr Tyr
1               5                  10                  15
Val Ala Ser Thr Val Gln Asp Glu Gln Arg His His Tyr Thr Leu Asn
            20                  25                  30
Leu Pro Val Tyr Thr His Phe Thr Asn Pro Ser Arg Arg Tyr Ala Asp
        35                  40                  45
Ile Ile Val His Arg Gln Leu Glu Ala Val Leu Ser Asn Gly Ala Ile
    50                  55                  60
Asp Phe Ser Asp Asp Val Glu Ser Leu Ser Lys Thr Ala Asp Leu Cys
65                  70                  75                  80
Asn Thr Lys Lys Asp Ser Ala His Asn Ala Gln Glu Gln Ser Val His
                85                  90                  95
Ile Gln Ala Cys Arg Ser Met Asp Lys Lys Arg Gln Glu Ile Gly Gly
            100                 105                 110
Asp Leu Ile Ser Glu Gly Ile Val Leu Cys Val Tyr Glu Ser Ala Phe
        115                 120                 125
Asp Val Leu Ile Pro Glu Phe Gly Phe Glu Lys Arg Val His Cys Asp
    130                 135                 140
Gln Leu Pro Leu Lys Lys Ala Glu Tyr Arg Lys Glu Thr Arg Val Leu
145                 150                 155                 160
Glu Leu Tyr Trp Glu Lys Gly Val Pro Ser Ser Ala Tyr Ile Pro Glu
                165                 170                 175
Asp Glu Arg Pro Arg Pro Ala Asn Ser Arg Ala Ala Gln Ala Ala Ala
            180                 185                 190
Ala Ala Arg Glu Ala Glu Ala Ala Arg Glu Arg Ala Arg Glu Arg Asp
        195                 200                 205
Glu Ala Ile Arg Lys Gln Thr Glu Thr Gly Thr Met Ser Ala Asp Asp
    210                 215                 220
Val Asp Ala Leu Phe Asp Asp Asp Asp Asp Ile Ser Glu Val Thr Glu
225                 230                 235                 240
Met Ala Ala Gly Val Ser Leu Asn Ser Ser Ala Asp Arg Thr Thr Gln
                245                 250                 255
Ser Met Pro Pro Ser Pro Thr Arg Asn Gly His Leu Gln Gln Thr Pro
            260                 265                 270
His Arg Thr Arg Ser Asp Pro Lys Met Pro Ser Val Asn Asn Asp Val
        275                 280                 285
Pro Glu Ala Lys Leu Thr Asn Lys Glu Lys Tyr Leu Lys Leu Phe Lys
    290                 295                 300
Leu Arg Glu Glu Asp Gly Glu Tyr Ile Gln Asp Val Thr Glu Met Thr
305                 310                 315                 320
Arg Val Pro Ile Ile Leu Lys Thr Asp Leu Thr Lys Ser Pro Pro
                325                 330                 335

<210> 37081
<211> 473
<212> PRT
```

<213> A.fumigatus

<400> 37081

```
Gly Leu Arg Gly Ser Pro Ala Arg Gly Glu Asp Leu Asp Ala Asp Ile
1               5                  10                  15
Phe Ile Cys Gly Ser Lys Asp Arg Asn Arg Ala Leu Glu Gly Asp Phe
            20                  25                  30
Val Ala Val Glu Leu Leu Asp Val Asp Glu Val Trp Ser Gln Lys Lys
        35                  40                  45
Glu Lys Glu Glu Lys Lys Lys Arg Lys Asp Ile Thr Asp Ala Arg Ser
    50                  55                  60
Gly Ser Thr Ala Gly Thr Asp Lys Leu Ser Arg Ser Asp Ser Ala Ala
65                  70                  75                  80
Asn Gly Asp Arg Gln Glu Ile Gly Pro Asp Gly Ser Ile Arg Arg Arg
                85                  90                  95
Gly Ser Leu Arg Gln Arg Pro Thr Gln Lys Lys Asn Asp Asp Val Glu
            100                 105                 110
Val Glu Gly Gln Ser Leu Leu Leu Val Glu Glu Asp Glu Ile Ser Asp
        115                 120                 125
Glu Gln Lys Pro Leu Tyr Ala Gly His Ile Val Ala Val Ile Glu Arg
    130                 135                 140
Ile Ala Gly Gln Met Phe Ser Gly Thr Leu Gly Leu Leu Arg Pro Ser
145                 150                 155                 160
Ser Gln Ala Thr Lys Glu Lys Gln Glu Ala Glu Arg Gln Ala Arg Glu
                165                 170                 175
Gly Gly Ser Ala Arg Gln Gln His Asp Arg Gln Gln Glu Lys Pro Lys
            180                 185                 190
Ile Val Trp Phe Lys Pro Thr Asp Lys Arg Val Pro Leu Ile Ala Ile
        195                 200                 205
Pro Thr Glu Gln Ala Pro Arg Asp Phe Val Glu Lys His Gln Glu Tyr
    210                 215                 220
Ala Asn Arg Ile Phe Val Ala Cys Ile Lys Arg Trp Pro Ile Thr Ser
225                 230                 235                 240
Leu His Pro Phe Gly Thr Leu Val Glu Gln Leu Gly Glu Met Gly Asp
                245                 250                 255
Leu Lys Val Glu Thr Asp Ala Leu Leu Arg Asp Asn Asn Phe Gly Ala
            260                 265                 270
Asp Glu Phe Ser Asp Ala Val Leu Lys Ser Ile Gly Trp Glu Asp Trp
        275                 280                 285
Ser Val Ser Ser Glu Gly Asp Ala Leu Leu Glu Ser Arg Arg Asp Phe
    290                 295                 300
Arg Ser Glu Thr Thr Phe Thr Ile Asp Pro Ser Gly Ala Ile Glu Leu
305                 310                 315                 320
Asp Asn Ala Tyr His Ile Lys Pro Leu Ala Asp Gly Lys Val Glu Ile
                325                 330                 335
Gly Ile His Val Ser Asp Ile Ala His Phe Val Lys Ala Asn Ser Leu
            340                 345                 350
Val Asp Arg Glu Ala Lys Lys Arg Gly Thr Ala Val Tyr Leu Met Asp
        355                 360                 365
Arg Leu Val Asn Met Leu Pro Arg Arg Val Ser Thr Glu Leu Cys Ser
    370                 375                 380
Leu Leu Pro Glu Gln Asp Arg Leu Thr Val Ser Val Val Phe Thr Ala
385                 390                 395                 400
Asn Pro Glu Thr Gly Ala Val Asp Asp Asp Val Trp Ile Gly Lys Ser
                405                 410                 415
Ile Ile Lys Ser Ala Gly Arg Leu Ser Tyr Asp Glu Val Asn Ser Val
```

```
            420                 425                 430
Ile Lys Gly Glu Thr Asn Val Ser Val Ala Gly Ile Ser Ala Asn Ile
        435                 440                 445
Ile Gln Thr Leu Asn Val Gly Asn Pro Leu Ser Gln Phe Pro Leu Pro
    450                 455                 460
Gly Leu Ser Thr Asn Leu Leu Gly Leu
465                 470
```

<210> 37082
<211> 145
<212> PRT
<213> A.fumigatus

<400> 37082

```
Thr Ile Thr Arg Lys Phe Arg Glu Ala Arg Phe Gly Asn Arg Val Ser
1               5                   10                  15
Asn Pro Pro Pro Leu Arg Leu Leu Tyr Gln Leu Asp Asp Glu Asn Val
            20                  25                  30
Pro Val Glu Arg Asn Ile Phe Asp Ser Thr Asp Ser Arg Glu Leu Val
        35                  40                  45
Glu Glu Leu Arg His Lys Ala Asn Phe Phe Val Ala Arg Lys Leu Val
    50                  55                  60
Ser Ala Met Pro Asp Lys Ala Phe Leu Arg Arg Gln Pro Ser Pro Asn
65                  70                  75                  80
Ser Arg Arg Leu His Ser Phe Ile Asp Arg Met Asn Arg Leu Gly Tyr
                85                  90                  95
Asp Phe Asp Pro Ser Ser Ser Gly Thr Leu Gln Ser Ser Leu Cys Lys
            100                 105                 110
Val Gln Asp Asp Asp Leu Arg Lys Val Arg Val Leu Leu Arg Thr Leu
        115                 120                 125
Leu His Ser Thr Asp Ile Leu Thr Gly Ile Arg Val Trp Lys Leu Phe
    130                 135                 140
Cys
145
```

<210> 37083
<211> 132
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37083

```
Pro Pro Xaa Glu Lys Asn Val Ala Ala Asn His Pro Thr His Arg Gly
1               5                   10                  15
Ser Ser Pro Gln Pro Pro Pro Gln Arg Lys Ser Pro Lys Leu Ser Leu
            20                  25                  30
Leu Asp Lys Gly Ile Asn Thr Ser Ala Arg Ile Arg Asp Asp Val Ile
        35                  40                  45
Ile Ile Phe Glu Asp Ala Ser Asp Pro Ser Asp Leu Gln Ser Asn Asp
    50                  55                  60
Ser Lys Glu Asn His Ala Ala Leu His Ala Ser Lys Gly Met Gly Pro
65                  70                  75                  80
```

```
Ser Ala Arg Lys Ser Pro His Tyr Pro Thr Ser Leu Leu Ala Pro Ser
                85                  90                  95
Thr Ala Val Thr Cys Pro Ser Gly Ser Lys Ser Arg Ala Val Ser Gly
            100                 105                 110
Ser Arg Lys Ala Ser Ser Ser Ser Met Lys Ala Lys Pro Arg Ile Gly
        115                 120                 125
Ile Arg Arg Leu
    130
```

<210> 37084
<211> 146
<212> PRT
<213> A.fumigatus

<400> 37084

```
Ile Ser Glu Trp Asn Tyr Ile Arg Phe Val Ser Leu Ile Ser Arg Ser
1               5                   10                  15
Ser His Arg Ala Ser Ser Leu Pro Asp Pro Arg Pro Pro Pro Lys Pro
            20                  25                  30
Pro Pro Asn Pro His Gln Pro Pro Pro Pro Cys Pro Cys Cys Cys Lys
        35                  40                  45
Ser His Pro Pro Ala Gln Pro Ala Gln Ser Ser Ser Arg Ala Pro Gly
    50                  55                  60
Thr Lys Pro Thr Asp Pro His Thr Arg Tyr Ser Ser Pro Arg Thr Leu
65                  70                  75                  80
Thr Ala Thr Gln Thr Gly Thr Asp Gly Ser Arg Pro Gln His Gln Cys
                85                  90                  95
Tyr Cys Ser Gln Thr Arg Ser Asn Pro Val Asp Ser Ala Gln Arg Gln
            100                 105                 110
Pro Gly Thr Arg Arg Arg Arg Ala Ser Ser Ser Pro Thr Arg Asn Thr
        115                 120                 125
Asp Thr Ser Gly Leu Thr Ala Asp Thr Ala Pro Gly Tyr Arg Thr Ser
    130                 135                 140
Ala Ala
145
```

<210> 37085
<211> 70
<212> PRT
<213> A.fumigatus

<400> 37085

```
Asp Glu Gln Phe Ile Pro Leu Thr Thr Leu Val Ser Gly Gln Trp Leu
1               5                   10                  15
Ala Ile Ile Val Ser Ser Phe Arg Met Pro Gly Ser Ala Gln Gln Phe
            20                  25                  30
Asp Pro Phe Asn Pro Glu Pro Phe Phe Gly Glu Leu Ala Trp His Glu
        35                  40                  45
Val Leu Glu Leu Asn Asp Pro Leu Ile Thr Phe Phe Glu Thr Leu Phe
    50                  55                  60
Glu Gly Leu Ile Leu Phe
65                  70
```

<210> 37086
<211> 294
<212> PRT

<213> A.fumigatus

<400> 37086
Pro Thr Lys Ser Asp Phe Ser Arg Tyr Ser Arg Val Ser Pro Lys Trp
1 5 10 15
Gln Leu Leu Tyr Ile Pro Met Leu Pro Ile Val Phe Thr Phe Ile Thr
20 25 30
Phe Ile Gly Ile Ala Ala Ser Ser Ala Gly Gln Ser Arg Tyr Gly Gly
35 40 45
Glu Ile Pro Trp Asp Pro Ile Val Leu Ile Ser His Trp Thr Ser Arg
50 55 60
Ala Cys Arg Phe Phe Ala Ala Phe Ser Phe Ala Leu Ala Ser Leu Gly
65 70 75 80
Val Asn Ile Ser Ala Asn Ser Ile Ser Ala Ala Asn Asp Leu Thr Ala
85 90 95
Leu Ala Pro Gln Tyr Ile Asn Leu Arg Arg Gly Gln Ile Ile Cys Ala
100 105 110
Ile Leu Ser Trp Cys Leu Val Pro Trp Lys Ile Leu Ala Ser Ala Gly
115 120 125
Ser Phe Leu Asn Phe Met Ser Ala Tyr Ala Ile Phe Leu Gly Pro Val
130 135 140
Gly Ala Ile Met Leu Trp Asp Phe Trp Leu Val Lys Arg Arg Lys Tyr
145 150 155 160
Asp Thr Leu Ala Leu Tyr Gln Pro Ser Asn Pro Thr Tyr Arg Tyr Ser
165 170 175
Ser Trp Gly Thr Asn Trp Arg Ala Phe Val Ala Phe Leu Val Gly Val
180 185 190
Ala Pro Asn Leu Pro Gly Leu Ile Ala Ser Val Asn Ser Ser Ile Asp
195 200 205
Val Gly Val Gly Ile His Pro Tyr Gln Phe Gly Trp Leu Leu Gly Phe
210 215 220
Val Ala Thr Ser Ile Val Tyr Val Gly Leu Ser Val Trp Phe Pro Ala
225 230 235 240
Arg Glu Ser Leu Ile Glu Arg Ala Val Leu Ala Asp Glu Ile Tyr Asn
245 250 255
Ser Arg Gly Thr Val Glu Gly Val Asp Ala Gly Ser Glu Glu Val Leu
260 265 270
Gly Glu Gly Gly Gly Arg Glu Glu Lys Met Leu Gly Val Lys Asn Gly
275 280 285
Ile Leu Glu Lys Arg Ile
290

<210> 37087
<211> 409
<212> PRT
<213> A.fumigatus

<400> 37087
Gly Tyr Arg Gly Arg His Glu Cys Tyr Leu Gly Leu Val Val Tyr Pro
1 5 10 15
Arg Leu Arg Trp Ser Leu Thr Ala Ser Gly Leu Arg Thr Ser Leu Ala
20 25 30
Pro Ser Asp Lys Ile Arg Trp Leu Val Gly Cys Arg Ser Phe Phe Pro
35 40 45
Ser His Ala Ser His Val Gly Ser Ser Ala Gln Asn Arg Met Leu Leu
50 55 60

```
Thr Pro Pro Gly Leu Leu Lys Gly Arg Phe Leu Pro Phe Gln Gly Cys
65                  70                  75                  80
Phe His Pro His Leu Tyr Ile Ser Ala Ser Pro Gln Ser Asp Tyr Phe
                85                  90                  95
His Ser Ile Ser Pro Thr Ser Gln Ser Ala Arg Val Val Ser Leu Glu
            100                 105                 110
Asn Met Gly Arg Ala Thr Leu Phe Ser Ala Leu Ala Phe Leu Ala Gly
        115                 120                 125
His Val Leu Gln Ala Thr Ala Ile Pro Ser Ala Phe Pro Gln Asp Asn
    130                 135                 140
Ala Val Asn Gln Val Leu Leu Ser Asp Ser Tyr Gln Asp Gln Ser Val
145                 150                 155                 160
Ser Ser Ile Ser Ala Glu Asp Asp Ala Gln Asn Ser Asp Val Ile His
                165                 170                 175
Ile Gly Glu Ser Glu Thr Met Arg Ala Pro Ser Trp Phe Thr Ser Thr
            180                 185                 190
Leu Met Ala Arg Arg Leu Leu Ala Leu Ser Thr Thr Gly Thr Val Ser
        195                 200                 205
Thr Ile Phe Pro Asp Pro Leu Pro Gly Asn Ser His Ala Pro Pro Ser
    210                 215                 220
Val Ala Gly Leu Pro Ile Ser Leu Pro Glu Tyr Ile Ala Asp Cys Asp
225                 230                 235                 240
Glu Tyr Leu Pro Ala Asp Val Ser Asn Gly Gly Asn Gly Asp Pro Thr
                245                 250                 255
Phe Leu Ala Leu His Ile Ser Thr Thr Phe Arg Asn Thr Ala Ala Gly
            260                 265                 270
Ser Asn Val Ser Leu Ala Ile Asp Trp Trp Asp His Leu Asn Gln Thr
        275                 280                 285
Glu Pro Val Ala Pro Gly Phe Pro Pro Ser Glu Ala Gly Leu Pro Arg
    290                 295                 300
Val Thr Leu Ile Gly Tyr Val Glu Pro Phe Asp Thr Pro Leu His Arg
305                 310                 315                 320
Asp Ile Glu Ala Ala Leu Glu Glu Cys Tyr Leu Ser Val His Pro Asp
                325                 330                 335
Ala Ser Ala Trp Leu Pro Gly Lys Pro Gly Ala Pro His Ser Ser Tyr
            340                 345                 350
Trp Ala Lys Met Val Val Glu Gln Val Tyr Trp Ile Gly Gly Phe Gly
        355                 360                 365
Gly Leu Gln Gln Ile Gly Trp Met Asn Val Thr Glu Trp Lys Gly Ile
    370                 375                 380
Arg Arg Val Arg Ser Leu Pro Gly Val Gly Asp Gly Arg Gly Trp Glu
385                 390                 395                 400
Asp Val Arg Leu Pro Gly Glu Lys Glu
                405
```

<210> 37088
<211> 325
<212> PRT
<213> A.fumigatus

<400> 37088

```
Phe Ile Phe Ala Pro His Gly Leu Phe Leu Arg Phe Leu Val Leu Thr
1               5                   10                  15
Val Ile Leu His Arg Pro Thr Met Ile Phe Ser Arg Pro Arg Leu Arg
            20                  25                  30
Ile Thr Gln Pro Lys Ser Ala Phe Ala Glu Gly Asn Ala Arg Trp Thr
```

```
        35                  40                  45
Asn Leu Asp Leu Asp Pro Val Pro His His Arg Arg Lys Trp Gly Pro
    50                  55                  60
Leu Ser Phe Val Gly Glu Ile Ser Pro Ile Gln Phe Leu Gly Leu Ala
65                  70                  75                  80
Leu Leu Thr Pro Thr Ile Ala Tyr Trp Ile Ser Asp Ala Phe Asn Ala
                85                  90                  95
Ala Thr Trp Gln Phe Ala Ser Ser Ile Ile Ala Val Gly Leu Ser Trp
            100                 105                 110
Arg Glu Ser Leu Ala Ile Val Ala Ile Ser Phe Phe Ile Ile Ser Phe
        115                 120                 125
Val Ile Ala Ala Asn Gly Ala Val Gly Ala Ile Tyr His Ile Pro Phe
    130                 135                 140
Pro Val Ile Ala Arg Ala Ser Trp Gly Phe Trp Gly Ser Tyr Val Ala
145                 150                 155                 160
Ile Ile Ser Arg Val Ile Leu Ala Val Phe Trp Phe Ala Ile Gln Asn
                165                 170                 175
Val Asn Gly Gly Asn Ala Val Arg Cys Met Ile Gly Ala Ile Trp Pro
            180                 185                 190
Ser Phe Leu Thr Leu Lys Asn Asp Ile Pro Glu Ala Gln Gly Ile Thr
        195                 200                 205
Thr Ala Gly Met Val Gly Tyr Leu Ile Phe Phe Leu Val Gln Phe Pro
    210                 215                 220
Phe Leu Cys Ile His Pro Asn Lys Val Arg Trp Leu Phe Val Ala Lys
225                 230                 235                 240
Ser Ile Ile Val Pro Ile Ala Trp Leu Ala Ile Leu Val Trp Ala Phe
                245                 250                 255
Val Ala Glu Gly Gly Gly Ala Ile Phe Asp Gln Lys Pro Thr Val Ser
            260                 265                 270
Gly Ser Lys Tyr Ser Trp Leu Phe Leu Ala Asn Met Thr Ser Val Leu
        275                 280                 285
Gly Asn Tyr Ala Thr Leu Ser Val Asn Gln Val Cys Asp Ala Phe Leu
    290                 295                 300
Arg Gly Asn Thr Asn Met Leu Thr Asp Lys Val Arg Leu Leu Ser Ile
305                 310                 315                 320
Leu Pro Arg Gln Pro
                325
```

<210> 37089
<211> 105
<212> PRT
<213> A.fumigatus

<400> 37089

```
Val Asp Phe Val Val His Pro Ser Thr Glu Leu Val Lys His Phe Gln
1               5                   10                  15
Gly Thr Phe His Cys Phe Gly Ala Lys Pro Lys Val Thr Ile Lys Asp
            20                  25                  30
Met Gly Glu Cys Arg Phe Val Ser Phe His Ile Ile Ser Phe Leu Gly
        35                  40                  45
Phe Gly Glu His Gly Ile Arg Leu Glu Asn Ala Leu Glu Ser Thr His
    50                  55                  60
Ile Phe Trp Asn Leu His Asp Leu Cys Ser Asn Val Asp Ala Val Met
65                  70                  75                  80
Gly Asn Ile Val Phe Asp Ile Gln Asn Asp Trp Gln Ala Ser Asp Thr
                85                  90                  95
```

Asp Ser Ile Gln Asp Leu Tyr Leu Ala
100 105

<210> 37090
<211> 182
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37090
Lys Lys Xaa Thr Ser Lys Phe Thr Tyr Thr Thr Ser Gly Arg Val Ala
1 5 10 15
Asn Asn Cys Pro Thr Ser Gly Val Gly Glu Val Phe Val Pro Thr Glu
20 25 30
Ala Asn Met Phe Glu Gly Lys Thr Thr Ala Pro Asn Tyr Leu Thr Glu
35 40 45
Pro Glu Leu Ile Gly Leu Met Asp Ala Asn Gly Ile Gly Thr Asp Ala
50 55 60
Thr Met Ala Glu His Ile Ala Lys Ile Lys Glu Arg Glu Tyr Val Ala
65 70 75 80
Val His Ser Arg Gly Ser Gly Arg Asn Ala Val Lys Glu Phe Ile Pro
85 90 95
Thr Arg Leu Gly Ile Ala Leu Val Glu Gly Tyr Asp Asn Val Val Ala
100 105 110
Asn Leu Pro Asp Lys Pro Ser Leu Ser Lys Pro Phe Leu Arg Lys Glu
115 120 125
Met Glu Leu Arg Met Arg Glu Ile Cys Ala Gly Ser Lys Ser Arg Gln
130 135 140
Glu Val Val Gln Glu Ser Leu Asp Met Tyr Arg Glu Val Phe Ile His
145 150 155 160
Thr Gln Arg Arg Ile Asp Met Leu Lys Ala Ala Cys Arg Lys Tyr Leu
165 170 175
Ile Glu Gln Ala Thr Val
180

<210> 37091
<211> 66
<212> PRT
<213> A.fumigatus

<400> 37091
Ser Met Pro Gln His Glu Arg Pro His Ile Arg Asn Tyr Val Asn Arg
1 5 10 15
Tyr Asp Leu Ser Gln Thr Thr Lys Thr Glu Ser Gln Thr Ala Glu Thr
20 25 30
Asn Lys Thr Thr His Met Ser Ile Asn Leu Arg Ile Leu Gln Thr Asp
35 40 45
Lys Arg Gln Val Ile Gln Leu Ala Gln Arg Ala Thr Asn Leu Leu Gln
50 55 60
Lys His
65

<210> 37092
<211> 902
<212> PRT
<213> A.fumigatus

<400> 37092

```
Ile Gly Ile Ala Arg Leu Pro Val Val Leu Asp Ile Lys Asp Asp Ile
1               5                  10                  15
Ser His Asp Ser Val Asn Ile Arg Ala Lys Ile Met Glu Ile Pro Lys
            20                  25                  30
Asn Val Arg Arg Phe Gln Ser Ile Leu Gln Ser Asp Ser Met Leu Ala
        35                  40                  45
Glu Ser Lys Glu Gly Asp Asp Val Glu Arg Asn Lys Thr Thr Leu Ala
    50                  55                  60
His Val Phe Asp Gly His Leu Arg Phe Cys Thr Glu Thr Val Lys Ser
65                  70                  75                  80
Thr Leu Glu Val Leu Asn Gln Leu Ser Arg Arg Val Asp His Lys Ile
                85                  90                  95
Asn Leu Gln Glu Gln Pro Val Asp Ser Tyr Gly His Ser Gln Gly Asp
            100                 105                 110
Gln Lys Leu Ile Asp Pro Thr Asn Glu Phe Ser Leu Tyr Gln Gln Glu
        115                 120                 125
Leu Leu Thr Lys Asp Thr Leu Glu Val Thr Thr Ser Ala Met Glu Lys
    130                 135                 140
Arg Ile Leu Gly Thr Val Asp Asp His Thr Pro Ala Leu Asp Glu Glu
145                 150                 155                 160
Ala Lys Lys Arg Ile Gly Ile Glu Ser Ala Leu Ala Asn Ile Ser Ala
                165                 170                 175
Leu His Glu Glu Thr Lys Arg Arg Ile Asp Asn Ile Glu Ser Glu Leu
            180                 185                 190
Ala Lys Val Gln Gln Ser Leu Ser Val Gly Val Val Asp Gln Glu Gln
        195                 200                 205
Leu Asn Glu Thr Val Gly Gly Leu Lys Ala Asp Met Gly Asn Leu Arg
    210                 215                 220
Thr Ser Leu Gln Ser Leu Ser Arg Glu Gly Ser Asp Ser Gln Val Gly
225                 230                 235                 240
Val Asp Thr Ile Val His Glu Gln Leu Gln Ser Leu Glu Asn Arg Val
                245                 250                 255
Arg Ser Leu Glu Arg Ala Ala Ser Val Thr Pro Leu Asp Lys Lys Gln
            260                 265                 270
Ile Glu Gln Glu Leu Asp Glu Leu Asp Gln Ala Val Ile Asn Met Lys
        275                 280                 285
Asn Ser His Ala Glu Ile Gln Ser Lys Leu Asp Ser Thr Val Thr Glu
    290                 295                 300
Thr Gln Val Lys Glu Ala Leu Lys Gln Ile Ala Ala His Leu Glu Gln
305                 310                 315                 320
Glu Thr Gly Gly Met Lys Ser Gln Leu Arg Gly Leu Val Glu Ala Leu
                325                 330                 335
Asp Glu Val Lys His Ala Ala Ile Gln Ser Lys Asn Asn Asp Pro Glu
            340                 345                 350
Leu Ala Lys Gln Leu Glu Asp Ile Glu Arg Ala Ile Asp Asp Ser Ala
        355                 360                 365
Arg Lys Val Gln Cys Phe Lys Lys Asp Leu Asp Thr His Ala Val Glu
    370                 375                 380
His Lys Ser Leu Arg Glu Ala Val Asn Arg Ala Leu Glu Trp Asn Lys
385                 390                 395                 400
```

```
Glu Leu Glu Asp Gly Ile Lys Gln Lys Ile Ser Arg Val Thr Glu Thr
                405                 410                 415
Ile Leu Glu Thr Asn Ala Arg Met His Ile Ser Thr Glu Thr Arg Asp
            420                 425                 430
Lys Leu Glu Glu Tyr Lys Trp His Gln Arg Asn Met Asn Met Ser Ile
        435                 440                 445
Trp Gly His Leu His Lys Cys Met Asn Ala Leu Gly Ile Arg Phe Asp
    450                 455                 460
Leu Ser Ala Ala Asn Leu Val Thr Val His Asp Lys Asn Gln Asp Pro
465                 470                 475                 480
Val Glu Lys Pro Glu Ser Asn Asp Glu His Leu Ala Ala Glu His Gly
                485                 490                 495
Ala His Lys Thr Glu Thr Asp Val Ala Asp Lys Trp Pro Ser Gln Asp
            500                 505                 510
Glu Ala Gln Ala Ala Gly Phe Gly Val Gln Ser Leu Lys Lys Thr Ala
        515                 520                 525
Gln His Thr Lys Asp Glu Ala Lys Ser Pro Lys Gly Glu Ala Gln Ile
    530                 535                 540
Lys Glu Gln Ile Gln Thr Ser Asp Asp Gln His Cys Ala Ser Ala Gln
545                 550                 555                 560
Ser Glu Pro Ile Asn Pro Arg Thr Ser Asn Pro Ala Ser Gln Ala Ile
                565                 570                 575
Ser Gly Pro Lys Gln Ser Pro Val Ala Gly Arg Ser Asp Glu Ala Val
            580                 585                 590
Lys His Asp Lys Ala Asp Thr Ala Gln Ser Arg Ala Glu His Asn Gln
        595                 600                 605
Glu Asp Glu Lys Gly His Glu Ser Ala Ser Tyr Glu Thr His Lys Glu
    610                 615                 620
Ala Ile Ala Gln Pro Lys Ala Ser Val Gly Thr Gln Ser Leu Gln Val
625                 630                 635                 640
Pro Gly Ser Val Lys Gly Arg Ser Ser Glu Lys His Ala Pro Glu Pro
                645                 650                 655
Leu Arg Leu Lys Ile Glu Thr His Thr Ser Ala Arg His Glu Lys Asp
            660                 665                 670
Gln Ala Ser Ala Gln Leu Pro Ser Lys Pro Ser Ile Glu Ser Thr Ser
        675                 680                 685
Ala Lys Leu Ser Lys Ser Arg Trp Ala Leu Ser Thr Pro Thr Gln Pro
    690                 695                 700
Gln Ser Lys Thr Pro Thr His Gly Glu Thr Glu Glu Gly Gln Leu Ile
705                 710                 715                 720
Thr Pro Thr Leu Thr Glu Pro Pro Ser Lys Pro Ile Thr Glu Ser Ile
                725                 730                 735
Ser Ser Gly Met Ser Asn Ser Lys Trp Ala Pro Ser Thr Thr Thr Gln
            740                 745                 750
Ala Gln Pro Glu Thr Leu Glu Arg Thr Gln Ser Leu Gln Thr Ser Gly
        755                 760                 765
Ser Ala Glu Gly Lys Ser Ser Lys Lys His Thr Pro Arg Thr Pro Gly
    770                 775                 780
Leu Lys Gln Glu Ala Ser Ala Phe Ser Ala Lys Arg Glu Lys Ser Lys
785                 790                 795                 800
Gly Ala Asp Thr Ala Ser Ala Gln Ser Pro Ser Lys Ser Ser Thr Glu
                805                 810                 815
Ser Ala Ser Ala Glu Met Ser Lys Ser Arg Trp Ala Ser Thr Pro Thr
            820                 825                 830
Gln Thr Gln Ser Lys Thr Pro Thr His Gly Gly Thr Lys Gly Asp Gln
        835                 840                 845
```

```
Pro Ala Ser Ser Ala Ser Thr Pro Glu Val Pro Ser Lys Pro Pro Ala
    850                 855                 860
Ser Gly Glu Leu Ser Lys Ser Arg Trp Ala Asp Asp Ser Pro Asp Ala
865                 870                 875                 880
Lys Arg Ser Lys Gly Val Ser Leu Pro Ser Glu Lys Tyr Pro Lys Gly
                885                 890                 895
Asp Leu Gly Glu Thr Phe
            900
```

<210> 37093
<211> 97
<212> PRT
<213> A.fumigatus

<400> 37093

```
Asp Tyr Arg Gly Leu Met Ala Arg Asp Lys Asn Gly Leu Gln Met His
1               5                  10                  15
Pro Gln Gln Ile Ser Lys Met Gln Ser Ile Thr Asn Tyr Lys Pro Tyr
            20                  25                  30
Thr Arg Arg Leu Gly Met Asp Ser Cys Ile Glu His Gly Glu Ser Ser
        35                  40                  45
Leu Pro Ala Lys Ala Gly Leu Ile Thr Thr Ala Ser Ala Val Val Asp
    50                  55                  60
Leu Thr Ile Trp Gly Leu Pro Met Thr Thr Pro Asp Ser Val Phe Phe
65                  70                  75                  80
Asp Ala Ala Ser Lys Arg Ser Gly Arg Lys Trp Thr Gln Ser Met Arg
                85                  90                  95
Ile
```

<210> 37094
<211> 276
<212> PRT
<213> A.fumigatus

<400> 37094

```
Ser Gly Trp Pro Glu Ile Phe Arg Arg Asn Leu Asn Asn Cys His Cys
1               5                  10                  15
His Gln Ile Leu Leu Gly Cys Ser His Asp Asp Thr Tyr Ala Arg Phe
            20                  25                  30
Leu Arg Glu Thr Met Val Asp Tyr Lys Tyr Ile Gly Arg Val Thr Leu
        35                  40                  45
Ile Glu Gly Val Pro Leu Arg Gly Asp Met Lys Ala Met Lys Pro Ser
    50                  55                  60
Tyr Arg Val Ala Lys Phe Thr His Ile Phe Arg Glu Thr Asn Ile Val
65                  70                  75                  80
Ser Ala Ser Ala Ser Gln Glu Thr Asn Ala Arg Ser Ser Leu Thr Pro
                85                  90                  95
Ser Pro Val Gln His Ala Thr Ser Leu Ser Lys Thr Ser Ala Asn Thr
            100                 105                 110
Thr Met Thr Ser Asn Ser Pro Ala Leu Ser Thr Ser Ser Arg Lys Met
        115                 120                 125
Pro Lys Ser Glu Glu Phe Gln Pro Val Val Arg Ser Ile Arg Ser Lys
    130                 135                 140
Ala Ser Ser Ser Ser Pro Pro Lys Ile Val Glu Arg Asn Lys Tyr Gly
145                 150                 155                 160
```

```
Gln Arg Val Asp Arg Phe Asp Ile Lys Thr Ile Ser Lys Asp Asp Leu
                165                 170                 175
Ala Arg Met Lys Lys Leu Lys Leu Cys Asn Tyr Phe Tyr Leu Lys Gly
            180                 185                 190
Glu Cys Pro Ile Glu Asp Cys Arg His Asp His Ser Arg Lys Leu Thr
        195                 200                 205
Lys Ser Glu Tyr His Thr Leu Met Ile Val Ala Arg Met Thr Pro Cys
    210                 215                 220
Arg Tyr Lys Phe Glu Cys Asp Asp Pro Asp Cys Met Tyr Gly His Arg
225                 230                 235                 240
Cys Pro His Ser Glu Pro Gly Lys Arg Glu Cys Val Trp Gly Ser Thr
                245                 250                 255
Cys Arg Phe Asp Ala Ala Ala His Gly Val Asp Thr Ile Ile Val Lys
            260                 265                 270
Val Thr Lys Ile
        275
```

<210> 37095
<211> 94
<212> PRT
<213> A.fumigatus

<400> 37095

```
Lys Gln Ala Asn Lys Val Gly Lys Leu Gln Leu Thr Lys Leu Ser Ile
1               5                   10                  15
Pro Cys Arg Asp Tyr Ile Gln Ile His Phe Pro Asn Ile Ala Ser Pro
            20                  25                  30
Lys Phe Val Thr Met Ile Tyr Met Asn Val Lys Gly Leu Ala Asp Leu
        35                  40                  45
Cys Ile Gln Gly Gly Ile Lys Met Glu Leu Ser Val Leu Glu Ala Phe
    50                  55                  60
Val Arg Gly Phe Asn Gly Asn Gly Leu Leu Ser Asp Ile Ile Asp Val
65                  70                  75                  80
Gly Thr Gly Lys Asn Lys Ala Ser Asp Lys Ile Glu Gly Thr
                85                  90
```

<210> 37096
<211> 376
<212> PRT
<213> A.fumigatus

<400> 37096

```
Thr Leu Arg Ser Val Lys Ser Val Val Ser Ala Pro Lys Ser Asn Ser
1               5                   10                  15
Asn Gln Lys Phe Ser Leu Ile Lys Asp Val Glu Glu Arg Thr Phe Val
            20                  25                  30
Asp Leu Thr Gly Glu Val Val Lys Ile Phe Thr Asn Asp Ser Glu Lys
        35                  40                  45
Val Ala Leu Tyr Leu Thr Asp Tyr Thr Ala Asn Glu Gly Leu His Asn
    50                  55                  60
Tyr Thr Ile Asp Ala Asn Asn Ala Arg Glu Gly Asp Gln Phe Ala Tyr
65                  70                  75                  80
Leu Ser His Pro Lys Arg Gln Trp Gln Gly Pro Ala Gly Arg Met Thr
                85                  90                  95
Leu Gln Ile Thr Leu Trp Glu Pro His Ala Ser Phe Ala Arg Glu His
            100                 105                 110
```

```
Leu Lys Glu Gly Ser Phe Val Arg Leu Arg Asn Val His Ile Lys Arg
        115                 120                 125
Ser Arg Ile Glu Gly Ser Pro Leu Glu Gly Ala Met His Cys Asp Arg
    130                 135                 140
Gln Asn Pro Asp Glu Met Asn Ile Arg Leu Ile Asp Ala Lys Asn Asp
145                 150                 155                 160
Asp Arg Gly Arg Glu Leu Leu Arg Arg Arg Lys Lys Tyr Trp Glu Ser
                165                 170                 175
Asn Pro Arg Lys Arg Lys Ala Glu Glu Leu Glu Glu Thr Thr Ser His
            180                 185                 190
Arg Ser Lys Ser Gln Lys Ser Gln Asn Lys Ile Pro Thr Ala Lys Lys
        195                 200                 205
Glu Glu Gly Gln Thr Ser Leu Ser Leu Pro Arg Lys His Glu Val Asn
    210                 215                 220
Lys Thr Ser Lys Leu Ile Leu Val Gln Thr Thr Arg Thr Lys Pro Asn
225                 230                 235                 240
Gln Cys Pro Glu Thr Val Gln Ala Ser Asn Pro Ser Ile Lys Cys Thr
                245                 250                 255
Ser Leu Ala Asp Ile Leu Asp Gly Glu Phe His Glu Asn Ile Ser Pro
            260                 265                 270
Asn Gln Ile Glu Tyr Arg Ile Pro Phe Gln Asn Val Cys Tyr Arg Ala
        275                 280                 285
Thr Val Arg Val Val Asp Phe Phe Pro Pro Lys Leu Glu Asp Phe Ala
    290                 295                 300
Val Pro Glu Glu Ser Asp His Lys Pro Arg Leu Asp Ala Glu Val Asp
305                 310                 315                 320
Glu Ile His Asn Phe His Arg Ala Asp Arg Ser Ile Arg Trp Gln Trp
                325                 330                 335
Arg Phe Cys Leu Leu Val Glu Asn Val Pro Pro His Pro His Gly Lys
            340                 345                 350
Ser Ser Gln Arg Met Lys Leu Phe Val Ser Gly Ala Asp Ala Glu Tyr
        355                 360                 365
Leu Leu Lys Leu Asp Ala Ala Lys
    370                 375
```

<210> 37097
<211> 484
<212> PRT
<213> A.fumigatus

<400> 37097

```
Gly Glu Ile Gly Phe Ala Gly Pro Ala Ser Arg Arg Thr Glu Lys Ser
1               5                   10                  15
Ala Thr Gly Ser Lys Arg Ser Pro Ser Asn Ala Ser Val Asn Pro Leu
            20                  25                  30
Gln Leu Ala Ser Thr Ile Leu Lys Ser Cys Pro Met Tyr Asp Thr Ile
        35                  40                  45
Ala Ile Leu Ile Phe Leu Leu Gln Leu Pro Pro Met Val Leu Thr Leu
    50                  55                  60
Val Gln Phe Leu Phe Ala Ser Leu Thr Phe Leu Pro Pro Ser Gly Ala
65                  70                  75                  80
Ser Ala Gly Ser Leu Thr Ser Asn Phe Asp Ile Phe Gln Gly Pro Ala
                85                  90                  95
Gly Thr Pro Ser Leu Gly Thr Met Ile Ala Met Asp Gly Phe Cys Leu
            100                 105                 110
Leu Ile Trp Gly Leu Phe Met Trp Thr Trp Ala Gln Asn Phe Ala Leu
```

```
        115                 120                 125
Asp Leu Ala His Val Gln Val Ala Ile Thr Leu Gly Gly Gly Gly Phe
    130                 135                 140
Gly Lys Asn Gly Gly Val Asn Thr Leu Cys Val Gly Ile Val Leu Ile
145                 150                 155                 160
Met His Leu Val Arg Ser Lys Gly Ile Gln Asp Phe Val Ile Gly His
                165                 170                 175
Leu Leu Ser Ser Asn Ile Ile Ser Pro Asp Met Leu Ser Gln Tyr Ser
            180                 185                 190
His Leu Leu Pro Thr Glu Phe Arg Arg Thr Glu Pro Gln Thr Ser Pro
        195                 200                 205
Ser Trp Leu Arg Ser Leu Leu Ala Val His Ile Leu Ala Gln Ala Gly
    210                 215                 220
Thr Ala Met Ala Arg Arg Ser Met Ala Lys Asn Arg Thr Pro Asn Pro
225                 230                 235                 240
Pro Arg Thr Gly Lys Arg Ile Asp Thr Glu Ala Ser Ala Gly Ser Gln
                245                 250                 255
Thr Gln Ile Asp Ser Ala Phe Glu Ser Gly Ala Ser Val Ser Ser Tyr
            260                 265                 270
Ile Gly Ala Asp Gly Gln Ile Val Thr Ser Ala Ala His Lys Asp Gly
        275                 280                 285
Arg Asp Arg Leu Leu Ser Ala Lys Lys Arg Arg Arg Gln Ala Asn Gln
    290                 295                 300
Val Arg Ser Arg Gln Pro Phe Trp Ala Ala Leu Ala Ser Thr Lys Ile
305                 310                 315                 320
Thr Val Met Arg Glu Tyr Glu His Ser Arg Ala Leu Ser Lys Thr Ala
                325                 330                 335
Arg Ser Leu Pro Met Thr Glu Asp Asp Leu Gln Gly Leu Ser Leu Asp
            340                 345                 350
Asp Gly Leu Val Trp Ile Thr Glu Ile Asp Ser Ser Thr Ile Lys Phe
        355                 360                 365
Ala Ala Gly Asp Phe Ser Ser Ala Asp Asp Ser Ser Gly Ser Gly Ala
    370                 375                 380
Cys Glu Ala Gly Cys Leu Gly Ser Glu Asp Met Glu Pro Phe Tyr Val
385                 390                 395                 400
Cys Val Asn Gly Ala Leu Trp Ala Thr Ala Thr Ile Cys Lys Val His
                405                 410                 415
Asp Ala Pro Lys Gly Ser Ser Met Val His Trp Arg Gly Glu Ile Ser
            420                 425                 430
Gly Leu Ala Pro Asn Cys Ala Tyr Thr Cys Ser Phe Val Arg Ser Asp
        435                 440                 445
Thr Asp Glu Glu Ile Cys Val Ile Ser Val Lys Thr Pro Ala Asn Asn
    450                 455                 460
Asp Ala Glu Gln Gly Lys Asn Asp Val Leu Trp Ile Phe His Ala Leu
465                 470                 475                 480
Glu Lys Ser Tyr
```

<210> 37098
<211> 441
<212> PRT
<213> A.fumigatus

<400> 37098

```
Leu Pro Gln Ala Ala Val Ser Ser Val Ser Thr Pro Pro His Pro Ser
1               5                   10                  15
```

```
Tyr Arg Pro Ser Ser Pro Thr Thr Thr Leu Lys Asn Ser Ile Val Asn
            20                  25                  30
Ala Glu Ala Lys Leu Asn Glu Lys Arg Ser Arg Leu Arg Lys Ala Lys
        35                  40                  45
Asn Asp His Lys Leu Ile Ile Ser Lys Ile Arg Lys Glu Leu Asp Asn
    50                  55                  60
Tyr Asn His Arg Leu His Ser Gly Thr Asp Glu Asn Arg Gln Lys Gln
65                  70                  75                  80
Arg Ser Leu Gln Leu Glu Arg Asn Ile Arg Gln Thr Glu Glu Ala Thr
                85                  90                  95
Ala Leu Leu Glu Asp Gln Leu Asp Asn Leu Glu Asn Val Pro Glu Glu
            100                 105                 110
Glu Leu Arg Lys Trp Ser Asp Gln Lys Ala Lys Tyr Glu His Glu Leu
        115                 120                 125
Gly Leu Leu Asn Ser Ala Lys Glu Glu Leu Ala Ser Ala Arg Ser Ala
    130                 135                 140
Ile Ala Arg Glu Val Ser Ser Leu Glu Thr Glu Leu Ser Ser Ala Ile
145                 150                 155                 160
Gln Arg Arg Glu Arg Leu Gln Ser Arg Arg Thr Arg Ile Asn Glu Gln
                165                 170                 175
Tyr Glu Arg Ile Val Ser Ala Asn Ala Gln Gly Leu Asn Glu Arg Glu
            180                 185                 190
Arg Arg Ala Ala Glu Gln Phe Ala Arg Glu Gln Asp Gln Ala Lys Leu
        195                 200                 205
Glu Ala Thr Phe Asn Glu Gln Phe Ala Thr Ile Gly Gln Ser Val Gln
    210                 215                 220
Glu Tyr Gln Leu Arg Ala Gln Gln Ile Trp Gln Gln Cys Asp Ala Ile
225                 230                 235                 240
Glu Gln Ala Ile Gln Gln Gln His Gln Gln Met Leu Leu Asp Pro Gly
                245                 250                 255
Pro Leu Thr Pro Glu Gly Asn Leu Pro Gly Thr Asn Pro Phe Ser Glu
            260                 265                 270
Ser Ala Leu Pro Leu Gly Ala Leu Thr Ser Thr Ala Pro Ser Ser Arg
        275                 280                 285
Ser Leu Leu Gly Leu Ser Phe Pro Pro Leu Lys Ser Ser Pro Leu Gln
    290                 295                 300
Thr Ala Ser Ser Pro Val Gly Ala Ser Ser Ser His Pro Thr Ser Pro
305                 310                 315                 320
Val Gln Gln Pro Ser Tyr Leu Asn Phe Pro Thr Ser Pro Leu Val Asn
                325                 330                 335
Ala Ser Ser His Leu Asp Ser Asp Phe Val Tyr Arg His Arg Ser Phe
            340                 345                 350
Ser Asn Arg Ser Ala Arg Ser Ser Leu Tyr Gly Ser Asp Phe Met Asp
        355                 360                 365
Ser Ser Arg Arg Gln Pro Phe Gln Leu Asp Leu Ser Glu Leu Leu Ala
    370                 375                 380
Asp Lys Arg Ser Pro Gly Ser Asp Ser Asn Thr Ala Leu Asn Ser Gly
385                 390                 395                 400
Leu Arg Pro Val Ser Ser Pro Cys Gln Arg Ala Gly Ser Arg Gly Ser
                405                 410                 415
Gly Ser Gly Ser Asn Gly Ser Gly Gly Ser Gly Ser Gly Ser Gly Ser
            420                 425                 430
Pro Ser Ser Val Tyr Gly Lys Thr Asn
        435                 440
```

<210> 37099

<211> 74
<212> PRT
<213> A.fumigatus

<400> 37099
Thr Pro Lys Pro Ala Trp Arg Arg Leu Trp Phe Ser Thr Ser Lys Leu
1 5 10 15
Gly Arg Gln Lys Met Arg Ile Leu Arg Gln His Ile Gly Ala Asp Asp
20 25 30
Val Arg Gly Lys Lys Met Thr Tyr Asp Lys Ile Leu Tyr Thr Leu Ala
35 40 45
Pro Tyr Lys Val His Tyr Gln Asn Tyr Thr Asn Thr Glu Gly Val His
50 55 60
Pro Pro Val Phe Ser Lys Ser Ser Ser Thr
65 70

<210> 37100
<211> 90
<212> PRT
<213> A.fumigatus

<400> 37100
Tyr Glu Ile Met Asn Ser Pro Asp Arg Ala Cys His Leu Ala Lys Gln
1 5 10 15
Ala Phe Asp Asp Ala Ile Ala Glu Leu Asp Ser Leu Ser Glu Glu Ser
20 25 30
Tyr Arg Asp Ser Thr Leu Ile Met Gln Leu Leu Arg Asp Asn Leu Thr
35 40 45
Leu Trp Thr Ser Ser Asp Gly Asn Glu Ala Glu Gly Ala Ala Ala Lys
50 55 60
Glu Asp Lys Thr Glu Glu Glu Pro Thr Pro Ala Ala Glu Glu Lys Pro
65 70 75 80
Glu Glu Ala Lys Pro Ala Pro Thr Glu Ser
85 90

<210> 37101
<211> 240
<212> PRT
<213> A.fumigatus

<400> 37101
Pro Ser Val Ile Ser Lys Val Leu Asp Ser Trp Asp Ala Ala Glu Asp
1 5 10 15
Ser Glu Val Glu Arg Glu Lys Ala Ala Lys Ala Ala Ala Ala Ala Ala
20 25 30
Lys Ala Glu Ala Glu Ala Ala Ala Lys Lys Lys Ser Lys Ala Gln Arg
35 40 45
Ile Glu Glu Arg Lys Gln Glu Arg Lys Lys Leu Ala Glu Ala Asn Glu
50 55 60
Ser Asp Glu Asp Ser Glu Glu Asp Glu Ala Ala Arg Arg Ala Arg Leu
65 70 75 80
Arg Arg Thr Glu Lys Glu Gly Asp Leu Lys His Ala Gln Asp Leu Phe
85 90 95
Glu Asp Ile Asp Leu Asn Arg Asn Arg Gly Thr Pro Lys Ala Ile Val
100 105 110
Ile Ser Asp Ser Ala Asp Pro Thr Gln Ala Val Asp Leu Ser Ala Met

```
        115                 120                 125
Pro Leu Phe Lys Pro Thr Thr Lys Asp Gln Phe Thr Arg Leu Thr Ser
    130                 135                 140
Thr Leu Ile Pro Leu Leu Thr Ala His Ser Lys Lys Pro His Tyr Ala
145                 150                 155                 160
Leu Trp Ala Gln Glu Phe Thr Lys Gln Leu Val Lys Glu Leu Asn Ser
                165                 170                 175
Gly Asp Val Lys Lys Ile Ala Ser Ala Leu Thr Thr Ile Ser Asn Glu
            180                 185                 190
Lys Met Arg Glu Glu Arg Ala Ala Asp Lys Gly Asn Lys Lys Thr Lys
        195                 200                 205
Ala Ala Lys Thr Lys Val Ser Leu Val Ala Ser Arg Asp Asn Lys Ile
    210                 215                 220
Asp Ala Thr Pro Tyr Asp Asp Asp Gly Leu Asp Asp Asp Asp Phe Met
225                 230                 235                 240
```

<210> 37102
<211> 396
<212> PRT
<213> A.fumigatus

<400> 37102

```
Pro Pro Ser Pro Gln Arg Arg Ile Tyr Phe Gly Pro Glu Thr Pro Thr
1               5                   10                  15
Leu Ala Pro Leu Thr Thr Gln Gly Asn Leu Pro Phe Arg Arg Leu Cys
            20                  25                  30
Ile Asp Tyr Gly Cys Gln Phe Thr Tyr Ser Glu Met Ala Met Gly Met
        35                  40                  45
Ser Leu Ile Gln Gly Gln Lys Ser Glu Trp Ala Leu Met Lys Ala His
    50                  55                  60
Glu Ser Glu Ala Leu Pro Pro Thr Ile Ser Ser Thr Ala Asp Val Val
65                  70                  75                  80
Gln Gly Tyr Asp Asn Ser Lys Asp Phe Lys Phe Gly Ala Gln Ile Ala
                85                  90                  95
Gly Asn Lys Pro Trp His Ala Ile Lys Ala Thr Glu Leu Leu Ser Arg
            100                 105                 110
Leu Thr Pro Asn Leu Arg Val Ile Asp Leu Asn Cys Gly Cys Pro Ile
        115                 120                 125
Asp Gln Val Phe Arg Glu Gly Ala Gly Ser Ala Leu Leu Asp His Pro
    130                 135                 140
Ser Lys Leu Glu Lys Met Leu Arg Gly Met Asn Ala Val Ser Glu Met
145                 150                 155                 160
Ile Pro Ile Thr Val Lys Ile Arg Thr Gly Thr Arg Asp Asn Ser Pro
                165                 170                 175
Asn Ala Thr Lys Leu Ile Glu Arg Leu Val Leu Gly Gly His Glu Ser
            180                 185                 190
Gly Ile Leu Asn Ile Gly Pro Pro Gly Val Ala Ala Val Thr Leu His
        195                 200                 205
Gly Arg Ser Arg Gln Gln Arg Tyr Thr Lys Met Ala Asp Trp Ser Tyr
    210                 215                 220
Ile Ala Glu Cys Ala Ala Leu Ile Lys Arg Leu Asn Glu Lys Lys Asp
225                 230                 235                 240
Asp Val Thr Asp Thr Val Arg Glu Pro Asp Glu Arg Met Leu Pro Asn
                245                 250                 255
Gly Gly Lys Val Phe Phe Leu Gly Asn Gly Asp Cys Tyr Ser His Tyr
            260                 265                 270
```

```
Asp Tyr Asp Asp His Ile Asn Asn Ala Gly Val Asp Ala Val Met Val
        275                 280                 285
Gly Arg Gly Ala Ile Ile Lys Pro Trp Val Phe Glu Glu Ile Gln Ala
    290                 295                 300
Gly Gln Tyr Leu Asp Lys Ser Ala Thr Glu Arg Leu Ala Met Ile Glu
305                 310                 315                 320
Lys Tyr Ala Lys Tyr Gly Leu Asp Thr Trp Gly Ser Asp Glu His Gly
                325                 330                 335
Val Gly Thr Thr Arg Arg Phe Met Leu Glu Trp Leu Ser Phe Thr Tyr
            340                 345                 350
Arg Tyr Val Pro Ile Gly Leu Leu Glu Tyr Leu Pro Pro His Ile Gln
        355                 360                 365
Asp Arg Pro Pro Ala Trp Arg Gly Arg Asn Glu Leu Glu Thr Leu Leu
    370                 375                 380
Gly Ser Pro Asn Tyr Lys Asp Trp Ile Lys Ile Thr
385                 390                 395
```

<210> 37103
<211> 148
<212> PRT
<213> A.fumigatus

```
<400> 37103
Ser Leu Ser Pro Ala Phe Asp Ile Val Thr Val Leu Thr Val Cys Ala
1               5                   10                  15
Asn Ala Phe Ala Ile Ser Arg Ala Ala Ala Leu Gly Thr Asp Arg Met
            20                  25                  30
Glu Val Gln Ala Arg Lys Phe Tyr Ser Gln Arg Asn Met Tyr Leu Cys
        35                  40                  45
Gly Phe Thr Leu Phe Leu Ser Leu Ile Leu Asn Arg Thr Tyr Thr Met
    50                  55                  60
Ile Leu Glu Val Leu Arg Leu Glu Asp Arg Val Lys His Leu Glu Gly
65                  70                  75                  80
Asp Lys Lys Ala Gly Gly Lys Asp Ser Ala Arg Leu Ala Gln Ala Gly
                85                  90                  95
Asp Ile Gly Glu Ile Ala Arg Leu Arg Lys Glu Ile Glu Ala Lys Asp
            100                 105                 110
Leu Asp Ile Glu Thr Leu Lys Lys Gln Cys Glu Gly Leu Thr Arg Glu
        115                 120                 125
Tyr His Ser Leu Gly Asp Arg Val Thr Gly Thr Thr Asn Asp Gly Ser
    130                 135                 140
Lys Lys Asp Leu
145
```

<210> 37104
<211> 219
<212> PRT
<213> A.fumigatus

```
<400> 37104
Ala Asn Ser Gln Ile Leu Leu Tyr Leu Ser Ser Leu Phe Phe His Ile
1               5                   10                  15
Tyr Pro Arg Ile Lys Tyr Leu Ile Met Arg Ser Thr Arg Met Leu Ser
            20                  25                  30
Ser Ser Leu Arg Ala Phe Asn Cys Ala Leu Pro Arg Thr Met Leu Ser
        35                  40                  45
```

```
Gln Pro Lys Ser Arg His Phe Ser Gln Leu Leu Ile His Ser Leu Gln
    50                  55                  60
Pro Ser Pro Ala Pro Ser Leu Arg Leu Leu Arg Thr Gly Leu Pro Gln
65                  70                  75                  80
Leu Ala Val Arg Asn Asn Ser Ser Ser Ser Ser Ser Ser Ser Pro Asn
                85                  90                  95
Leu Thr Asp Gln Ile Pro Asp Ala Ala Gln Asp Ala Ala Asn Glu Glu
            100                 105                 110
Gln Asn Arg Leu Arg Arg Glu Gln Glu Pro Ala Tyr Gln Ile Thr Phe
        115                 120                 125
Thr Cys Lys Pro Cys Gly His Arg Ser Ser His Arg Met Ser Lys His
    130                 135                 140
Gly Tyr His Arg Gly Thr Val Leu Ile Arg Cys Pro Ser Cys Leu Asn
145                 150                 155                 160
Arg His Val Ile Ala Asp His Leu Asn Ile Phe Met Asp Glu Lys Ser
                165                 170                 175
Thr Leu Glu Asp Ile Leu Gln Arg Glu Gly Lys Arg Leu Thr Arg Gly
            180                 185                 190
Tyr Val Asp Gly Asp Met Glu Phe Trp Glu Asp Gly Thr Val Lys Lys
        195                 200                 205
Arg Glu Glu Ala Gly Glu Gly Ser Glu Ala Lys
    210                 215

<210> 37105
<211> 571
<212> PRT
<213> A.fumigatus

<400> 37105
His His Leu Thr Ile Gln Asp Arg Ile Ile Met Ala Asp Phe Arg Lys
1               5                   10                  15
Pro Ser Ile Tyr Val Ala Ser Met Ala Leu Phe Arg Asp Gln Val Leu
            20                  25                  30
Arg Ser Pro Ile Gln Ser Asp Lys Glu Thr Thr Ile Ala Asp Val Leu
        35                  40                  45
Glu Thr Thr Val Leu Phe Met Ile Gln Leu Glu Arg Ser Gly His Val
    50                  55                  60
Ile Asp Arg Pro Leu Ile Arg His Cys Ile Tyr Met Leu Glu Gly Leu
65                  70                  75                  80
Tyr Glu Thr Ile Thr Glu Glu Glu Ser Ser Lys Leu Tyr Leu Thr Met
                85                  90                  95
Phe Glu Pro Ala Phe Leu Glu Thr Ser Lys Ala Phe Tyr Arg Ala Glu
            100                 105                 110
Gly Gln Arg Leu Leu Glu Met Ala Asp Ala Ala Ser Phe Cys Arg Ile
        115                 120                 125
Ala Leu Ser Arg Ile Ala Glu Glu Lys Glu Arg Cys His Tyr Thr Leu
    130                 135                 140
Ser Pro Leu Thr Glu Pro Lys Ile Lys Asn Val Leu Asp Gln Glu Leu
145                 150                 155                 160
Ile Ala Arg Asn Ile Glu Glu Val Ile Asn Leu Glu Gly Thr Gly Val
                165                 170                 175
Lys Asn Leu Leu Asp Asn Asp Arg Val Asp Ile Leu Arg Asp Ile Tyr
            180                 185                 190
Glu Leu Ser Ala Arg Val Asp Asn Lys Lys Thr Pro Leu Thr Thr Ala
        195                 200                 205
Val Gln Lys Arg Ile Ser Gln Met Gly Arg Glu Ile Asn Ala Ser Ser
```

```
    210                 215                 220
Ile Ala Tyr Glu Lys Ser Ser Ile Ser Ala Gly Ser Lys Ala Thr Glu
225                 230                 235                 240
Lys Ser Ser Ser Gly Glu Lys Lys Ser Ala Glu Lys Glu Lys Pro Val
                245                 250                 255
Asn Gln Gln Thr Val Ala Ala Ile Lys Trp Val Asp Asp Ile Leu Ala
            260                 265                 270
Leu Lys Gly Lys Phe Asp Ser Ile Trp Glu Lys Ala Phe Leu Ser Asp
        275                 280                 285
Gln Gly Met Gln Ser Ala Ile Thr Thr Ser Phe Ser Asp Phe Ile Asn
    290                 295                 300
Ser Asn Ala Arg Ser Ser Glu Phe Leu Ser Leu Phe Phe Asp Glu Asn
305                 310                 315                 320
Leu Lys Lys Gly Ile Lys Gly Lys Thr Glu Ser Glu Val Asp Ser Leu
                325                 330                 335
Leu Asp Asn Gly Ile Thr Leu Leu Arg Tyr Ile Lys Asp Lys Asp Leu
            340                 345                 350
Phe Glu Thr Tyr Tyr Lys Lys His Leu Ser Arg Arg Leu Leu Met Lys
        355                 360                 365
Arg Ser Ala Ser Met Asp Ala Glu Arg Gln Met Ile Ser Lys Met Lys
    370                 375                 380
Met Glu Val Gly Asn Gln Phe Thr Gln Arg Leu Glu Ala Met Phe Lys
385                 390                 395                 400
Asp Met Thr Ile Ser Glu Asp Leu Ser Ala Ser Tyr Lys Glu His Ile
                405                 410                 415
Arg Lys Ser Gly Asp Pro Asp Gln Lys Arg Val Asp Leu Glu Ile Asn
            420                 425                 430
Val Leu Thr Ser Thr Met Trp Pro Met Glu Ile Met Ser Asn Pro Lys
        435                 440                 445
Asp Gly Glu Val Gln Leu Pro Cys Ile Leu Pro Lys Glu Val Glu Ser
    450                 455                 460
Val Lys Gln Ser Phe Glu Gln Phe Tyr Leu Asn Lys His Asn Gly Arg
465                 470                 475                 480
Lys Leu Ser Trp Gln Pro Ser Met Gly Thr Ala Asp Ile Arg Ala Thr
                485                 490                 495
Phe Lys Arg Ser Ser Gly Lys Val Gln Arg His Glu Leu His Val Ser
            500                 505                 510
Thr Tyr Pro Asn Asp His Thr Leu Pro Phe Pro Thr Thr Phe Pro Thr
        515                 520                 525
Gly Arg Val His Ser Arg Phe Glu Gly Asp Ser Gly Thr Gly Arg Pro
    530                 535                 540
Phe Pro Gln His Glu Pro Asn Ser Lys Leu Ala Ile Thr Gly Trp Arg
545                 550                 555                 560
Asn Gln Lys Pro Gly Phe Leu Lys Arg Ala Pro
                565                 570
```

<210> 37106
<211> 200
<212> PRT
<213> A.fumigatus

<400> 37106

```
Asp Glu His Pro Ala Asn Ser Arg Lys Gly Leu Ser Ala Ala Lys Thr
1               5                   10                  15
Asp Asp Phe Asp Thr Ile Trp Gly Val Leu Ser Ser Ser Leu Asn Glu
            20                  25                  30
```

```
Ile His Thr Lys Asn Ala Ser Ala Leu Ser Phe Glu Glu Leu Tyr Arg
        35                  40                  45
Asn Ala Tyr Arg Ile Val Leu Met Thr Arg Gly Asp Asp Leu Tyr Glu
    50                  55                  60
Arg Val Lys Lys Leu Glu Glu Glu Trp Leu Gly Ser Glu Val Lys Lys
65                  70                  75                  80
Thr Val Thr Ala Ala Ile Ser Pro Thr Leu Leu Leu Ala Gln Glu Pro
                85                  90                  95
Ala Asp Met Gln Asp Gln Ala Ser Glu Arg Arg Glu Ala Gly Glu Lys
            100                 105                 110
Phe Leu Thr Val Leu Lys Gly Ala Trp Glu Asp His Gln Leu Cys Met
        115                 120                 125
Gly Met Ile Thr Asp Val Leu Met Tyr Met Val Cys Pro Ser Leu Leu
    130                 135                 140
Cys Val Arg Trp Ile Arg Tyr Leu Thr Ser Ser Tyr His Thr Gly Ser
145                 150                 155                 160
Asn His His Gly Arg Phe Ser Lys Ala Phe Asn Ile Cys Cys Leu His
                165                 170                 175
Gly Leu Ile Pro Arg Pro Ser Pro Ala Val Ser His Ser Ile Arg Gln
            180                 185                 190
Gly Asn His Asn Cys Arg Cys Ala
        195                 200
```

<210> 37107
<211> 457
<212> PRT
<213> A.fumigatus

<400> 37107

```
Pro Arg Thr Gly Ala Ser Pro Ala Thr Ser Lys Leu Lys Val Ala Leu
1               5                   10                  15
Ile Glu Thr Gln Asp Leu Ser Lys Ala Arg Ser Trp Lys Leu Glu Pro
            20                  25                  30
His Gln Phe Ser Asn Arg Val Ser Ser Leu Thr Pro Ser Ser Val Ser
        35                  40                  45
Phe Leu Gln Arg Ile Gly Ala Trp Asp His Val Asp Ala Ser Arg Ala
    50                  55                  60
Gln Val Tyr Gln Glu Met Gln Val Trp Asp Gly Glu Thr Gly Ser Arg
65                  70                  75                  80
Ile Ser Phe Asp Trp Ser Met Glu Thr Ser Pro Phe Glu Asp Leu Pro
                85                  90                  95
Thr Val Ala Thr Met Thr Glu Asn Ala Asn Leu Val Arg Gly Leu Leu
            100                 105                 110
Ser Arg Ile Glu Val Ser Gly Glu Glu Asn Leu Ser Ile Phe Ser Asn
        115                 120                 125
Thr Thr Val Ser Ser Ile Glu Asn Gly Ile Asp Tyr Ser Ser Gly Pro
    130                 135                 140
Asp Leu Ser Ala Trp Pro Val Leu Ser Leu Ser Pro Ser Gly Pro Ala
145                 150                 155                 160
Gly Gln Ser Gln Ala Pro Ser Arg Ile Ala Ala Arg Leu Leu Val Gly
                165                 170                 175
Ala Asp Gly Ile Asn Ser Pro Val Arg Arg Trp Ala Gly Ile Thr Thr
            180                 185                 190
Asp Gly Trp Asp Tyr Asp Arg His Gly Val Val Ala Thr Leu Ser Leu
        195                 200                 205
Ser Glu Pro Val Ser Pro Ala Phe Pro Thr Gly Thr Arg Thr Ala Tyr
```

```
    210                 215                 220
Gln Arg Phe Leu Pro Ser Leu Gly Gly Pro Val Ala Leu Leu Pro Leu
225                 230                 235                 240
Pro Asn Asn Thr Ala Thr Leu Val Trp Ser Thr Thr Val Glu Asn Ala
                245                 250                 255
Ala Tyr Leu Lys Ser Leu Ser Pro Arg Ala Phe Ile Ala Met Val Asn
            260                 265                 270
Ala Ala Phe Arg Leu Ser Met Ala Asp Leu Lys Tyr Met Ile Asn Met
        275                 280                 285
Glu Arg Pro Ala Asn Pro Ile Ala Asp Ala Glu Asn Pro His Glu Asp
    290                 295                 300
Glu Leu Thr Trp Arg Leu Gln His Thr Pro Gln Pro Ser His Ile Pro
305                 310                 315                 320
Pro Met Val Asn Gly Val Gln Glu Gly Ser Val Ala Ser Phe Pro Leu
                325                 330                 335
Arg Phe Arg His Ala Ser Ser Tyr Ile Ser Pro Arg Val Ala Leu Val
            340                 345                 350
Gly Asp Ala Ala His Val Ile His Pro Leu Ala Gly Gln Gly Leu Asn
        355                 360                 365
Leu Gly Leu Gly Asp Val Ala Ser Leu Ser Lys Thr Ile Glu Tyr Ala
    370                 375                 380
Val Asn His Gly Met Asp Val Gly Asp Ile Leu Thr Leu Glu Arg Tyr
385                 390                 395                 400
Ala Ala Glu Arg Tyr Ala Thr Asn Ala Lys Ile Gly Ala Ala Cys Asp
                405                 410                 415
Val Leu His Lys Leu Tyr Asn Val Pro Gly Gln Gly Pro Val Thr Trp
            420                 425                 430
Ala Arg Ser Phe Gly Leu Asp Val Ile Asp Arg Leu Pro Phe Val Lys
        435                 440                 445
Ser Phe Leu Met Lys Asn Ala Gln Gly
    450                 455
```

<210> 37108
<211> 106
<212> PRT
<213> A.fumigatus

<400> 37108

```
Ala Glu Phe Ser Tyr Lys Ile Lys Pro Lys Leu Pro Gln Gln Phe Lys
1               5                   10                  15
Ala Ala Glu Gln Gly Gly Val Pro Phe Ala Val Ile Leu Gly Glu Asp
            20                  25                  30
Glu Leu Ala Ala Gly Gln Val Arg Ile Lys Glu Leu Gly Leu Glu Glu
        35                  40                  45
Gly His Pro Glu Lys Glu Gly Val Leu Val Asp Leu Ala Ala Leu Thr
    50                  55                  60
Asp Glu Val Lys Ala Arg Leu Ala Lys Lys Gln Ser Gln Thr Ser Ala
65                  70                  75                  80
Lys Ala Asp Ile Ser Gly Val Thr Gln Gln Leu Glu Ala Ile Lys Val
                85                  90                  95
Glu Ala Pro Lys Thr Glu Asp Ala Gly Val
            100                 105
```

<210> 37109
<211> 244
<212> PRT

<213> A.fumigatus

<400> 37109

```
Lys Pro Leu Ser Lys Lys Lys Arg Val Leu Pro Pro Pro Pro Leu Lys
1               5                  10                  15
Ile Trp Gly Gly Lys Lys Lys Gly Gly Gly Glu Asn Pro Arg Gly Lys
            20                  25                  30
Lys Gly Phe Phe Thr Pro Phe Phe Val Lys Thr Leu Gly Ala Asn Ala
        35                  40                  45
Ser Ala Lys Ala Gly Leu Glu Glu Met Gly Leu Leu Met Asp Tyr Leu
    50                  55                  60
Glu Ala Phe Gly Cys Leu Asp Lys Ile Ser Phe Asp Met Ser Leu Ala
65                  70                  75                  80
Arg Gly Leu Asp Tyr Tyr Thr Gly Val Ile Tyr Glu Val Val Thr Glu
                85                  90                  95
Gly Ser Ala Pro Ala Ile Ser Ser Ser Ala Pro Glu Ala Gln Lys Leu
            100                 105                 110
Gln Lys Ser Gly Lys Lys Asp Lys Ser Lys Ser Gly Asn Leu Asp Asp
        115                 120                 125
Glu Asp Arg Ser Asn Asp Pro Thr Leu Gly Val Gly Ser Val Ala Ala
    130                 135                 140
Gly Gly Arg Tyr Asp Asn Leu Val Gly Met Phe Leu Pro Lys Ala Gln
145                 150                 155                 160
Ile Pro Cys Val Ala Cys Leu Ile Arg Ser Arg Pro Tyr Leu Leu His
                165                 170                 175
His Gln Gly Gln Thr Arg Thr Gly Lys Glu His Pro Gly Thr Ala Gln
            180                 185                 190
Gln Arg Ser Arg Cys Leu Cys His Gly Leu Trp Trp Lys Gly Leu His
        195                 200                 205
Arg Tyr Ala Gln Gly Ala Tyr Gly Cys Met Pro Glu Thr Leu Glu Arg
    210                 215                 220
Trp Asn Gln Gly Lys Pro Leu Ser Arg Leu Ser Leu His Ser Ile Ser
225                 230                 235                 240
Arg Glu Ser Ser
```

<210> 37110
<211> 418
<212> PRT
<213> A.fumigatus

<400> 37110

```
Gly Gly Gly Val Lys Gly Lys Gly Gly Lys Pro Ser Ser Gly Glu Lys
1               5                  10                  15
Ser Ala Arg Glu Ala Ile Lys Ser Leu Gln Asp His Gly Ile Pro Ile
            20                  25                  30
Pro Trp Lys Arg Arg Arg Phe Arg Arg Tyr Gly Arg Ser Val Gln Gly
        35                  40                  45
Thr Ala Gln Arg Asn Ile Ser Arg Ser Ile Gly Lys Pro Ser Leu Trp
    50                  55                  60
Gln Ala Arg Thr Tyr Phe Val Gly Asn Leu Val Tyr Ala Val Ala Tyr
65                  70                  75                  80
Trp Trp Gly Arg Lys Gln Ile Ile Ala Gly Asn Tyr Thr Gln Thr Gln
                85                  90                  95
Phe Leu Met Val Val Phe Ser Leu Leu Val Ser Ala Leu Leu Trp Ser
            100                 105                 110
```

```
Gln Met Phe Ala Leu Ala Pro Glu Leu Ser Ser Ala Arg Ala Ala Met
        115                 120                 125
Ala Arg Ile Leu Ser Leu Ile Glu Ile Gly Ser Asp Lys Met Gln Gly
    130                 135                 140
His Val Arg Ser Pro Pro Thr Asn Asp Ser Asn Asp Pro Glu Ala Thr
145                 150                 155                 160
Ala Glu Pro Lys Pro Ile Ala Ser Asn His Glu Ala Ser Ser Val Gln
                165                 170                 175
Leu Arg Asp Val His Phe Ala Tyr Pro Ala Arg Pro Asp Ile Lys Val
            180                 185                 190
Leu Asn Gly Leu Ser Ile Asp Ile Arg Pro Gly Gln Phe Cys Ala Leu
        195                 200                 205
Val Gly Pro Ser Gly Ala Gly Lys Ser Thr Ile Ile Ser Leu Val Glu
    210                 215                 220
Arg Leu Tyr Thr Pro Glu Ser Gly Ala Ile Leu Val Asp Gly Val Asp
225                 230                 235                 240
Ile Thr Lys His Arg Asp Val Ser Phe Arg Asp Thr Met Ala Leu Val
                245                 250                 255
Pro Gln Glu Ser Val Leu Phe Glu Gly Ser Ile Ala Phe Asn Val Gly
            260                 265                 270
Leu Gly Ala Arg Pro Asp His Glu Ala Thr Met Asp Glu Ile Val Glu
        275                 280                 285
Ala Cys Lys Leu Ala Asn Ile His Asp Val Ile Glu Ser Leu Pro Asp
    290                 295                 300
Gly Tyr Gln Thr Leu Cys Gly Pro Asn Gly Ser Gln Phe Ser Gly Gly
305                 310                 315                 320
Gln Lys Gln Arg Leu Ser Ile Ala Arg Ala Leu Val Arg Lys Pro Lys
                325                 330                 335
Leu Leu Ile Leu Asp Glu Ser Thr Ser Ala Leu Asp Ala Glu Ser Glu
            340                 345                 350
Lys Leu Leu Gln Asp Gly Leu Glu Arg Ala Ala Lys Gly Ile Thr Val
        355                 360                 365
Ile Ala Ile Ala His Arg Leu His Thr Ile Arg Lys Ala Asp Val Ile
    370                 375                 380
Phe Leu Ile Glu Gly Gly Lys Cys Val Asp Arg Gly Thr His Glu Glu
385                 390                 395                 400
Leu Leu Gln Arg Ser Glu Ser Tyr Arg Ala Asn Val Met His Gln Thr
                405                 410                 415
Val Ala
```

<210> 37111
<211> 1125
<212> PRT
<213> A.fumigatus

<400> 37111

```
Thr Met Ala Leu Leu Leu Ala Ala Pro Leu Val Lys Thr Asn Leu Gly
1               5                   10                  15
Glu Ser Leu Ala Arg Tyr Ala Ile Val Glu Asp Ser Ala Asp Gly Lys
            20                  25                  30
Arg Tyr Met Val Trp Thr Ile His His Val Leu Tyr Asp Gly Trp Ser
        35                  40                  45
Glu Pro Ile Ile Leu Lys Gln Val Ser Asp Ala Leu Gln Gly Gln Pro
    50                  55                  60
Val Glu Val Lys Ala Gln Met Arg Asp Phe Val Arg Phe Val Arg Asp
```

65 70 75 80
Ser Asp Asp Ala Ala Val Gln Glu Phe Trp Arg Arg Glu Leu Lys Gly
85 90 95
Ala Val Gly Pro Gln Phe Pro Arg Leu Pro Ser Arg Asp Phe Met Pro
100 105 110
Thr Pro Asp Ala Leu Val Glu Arg Gln Val Ser Leu Asp Thr Ser Ser
115 120 125
Gly Ser Pro Phe Thr Met Ala Thr Leu Ile Arg Gly Ala Trp Ala Leu
130 135 140
Val Ala Ser Gln Tyr Thr Gly Ser Asp Asp Ile Val Phe Gly Glu Thr
145 150 155 160
Leu Thr Gly Arg Asp Ile Pro Leu Pro Gly Val Glu Ser Ile Val Gly
165 170 175
Pro Leu Ile Ala Thr Val Pro Ile Arg Val Arg Ile Leu Arg Gly Ser
180 185 190
Thr Val Glu Ser Tyr Leu Gln Ala Val Gln Gln Ser Val Leu Ala Arg
195 200 205
Thr Pro Tyr Gln His Leu Gly Met Gln Asn Ile Arg Lys Val Ser Gln
210 215 220
Asp Ala Gln His Ala Cys Glu Thr Gly Thr Gly Leu Val Ile Gln Pro
225 230 235 240
Glu Pro Glu Tyr Val Gly Ser Glu Leu Gly Val Glu Arg Gly Asp Val
245 250 255
Val Leu Glu Ala Leu His Phe Asn Pro Tyr Pro Leu Met Leu Ala Cys
260 265 270
Gly Ile Arg Lys Gly Gly Phe Arg Val Cys Ala Ser Phe Asp Ser Ser
275 280 285
Leu Ile Glu Thr Arg Gln Met Glu Arg Met Leu Ala Gln Leu Glu Thr
290 295 300
Ala Cys Trp Gln Leu Ser Gln Gly Leu Ser Arg Lys Val Asp Glu Ile
305 310 315 320
Ser Cys Leu Pro Glu Ala Glu Leu Asn Gln Ile Trp Gln Trp Asn Arg
325 330 335
Ser Pro Pro Leu Ser Leu Asp Glu Thr Thr Ser Arg Leu Arg Ala Asn
340 345 350
Ala Ser Thr Lys Pro Gly Ser Ser Tyr Pro Pro Ala Val Val Pro Trp
355 360 365
Val Cys Ser Pro Arg Asn Ser Ser Leu Leu Ser Pro Ile Gly Cys Val
370 375 380
Gly Glu Leu Trp Leu Glu Gly Ala Leu Leu Ser Gly Asp Thr Val Asp
385 390 395 400
Ser Pro Ala Trp Leu Val Ala Gly Ser Ser Thr Cys Ala Gly Arg Thr
405 410 415
Gly Lys Val Gln Ala Thr Gly Asp Met Val Gln Leu Arg Glu Asp Gly
420 425 430
Ser Leu Val Phe Val Gly Arg Lys Glu Asn Val Val Pro Val Gln Gly
435 440 445
His Ala Val Asp Ile Thr Glu Ile Glu Arg His Leu Ala Glu His Leu
450 455 460
Pro Pro Thr Ile Arg Ala Ala Ala Thr Val Val Arg Ser Ser Ser Asp
465 470 475 480
Gln Glu Leu Val Met Phe Ile Glu Gln Pro Ala Ala Glu Glu Ala Cys
485 490 495
Ile Glu Leu Leu Ser Glu Lys Arg Glu Ile Val Cys Asp Ala Pro Asp
500 505 510
Lys Ala Phe Gln Thr Thr Ile Cys Ala Thr Ile Pro Gly Ser Leu Ala

```
        515                 520                 525
Ala Val Leu Lys Lys Leu Asp Lys Tyr Met Arg Asp Ser Leu Pro Ser
    530                 535                 540
Tyr Met Ala Pro Ser Ala Tyr Ile Val Val Glu Lys Leu Pro Asn Thr
545                 550                 555                 560
Met Asp Asp Ile Asp His Asn Leu Leu Asn Gln Ile Ala Ser Gln Val
                565                 570                 575
Thr Pro Gln Ile Leu Asn Glu Leu Arg Asp Gly Leu Ser Asn Ala Trp
            580                 585                 590
Thr Lys Ala Thr Ala Pro Asn His Leu Ser Ala Ser Glu Ser Ile Leu
        595                 600                 605
Arg Ser Ala Trp Ala Lys Val Leu Arg Val Asp Pro Glu Gln Ile Asp
    610                 615                 620
Val Asp Asp Asn Phe Phe Arg Arg Gly Gly Asp Ser Val Leu Ala Met
625                 630                 635                 640
Lys Leu Val Ser Ser Leu Arg Ala Gln Gly Tyr Ser Leu Ser Val Ala
                645                 650                 655
Asp Ile Phe Arg His Met Arg Leu Ser Asp Ala Ala Arg Val Met Lys
            660                 665                 670
Val Asp Glu Arg Ser Thr Glu Lys Ile Asn Ser Tyr Gln Pro Phe Ser
        675                 680                 685
Met Leu Arg Leu Pro Asp Val Gln Gln Phe Leu Ala Asn Ile Val Arg
    690                 695                 700
Pro Gln Leu Gly Asp Gln His Trp Pro Ile Arg Asp Val Leu Pro Val
705                 710                 715                 720
Thr Asp Ser Gln Asp Met Asp Ile Arg Ala Thr Ile Gln Pro Pro Arg
                725                 730                 735
Thr Ser Ile Gln Tyr Thr Met Leu Tyr Phe Asp Asn Ser Val Asp Arg
            740                 745                 750
Glu Arg Leu Phe Arg Ser Cys Ser Asp Leu Val Lys Thr His Glu Ile
        755                 760                 765
Leu Arg Thr Val Phe Ile Ser His Glu Ser Ser Phe Leu Gln Val Val
    770                 775                 780
Leu Asn Glu Leu Glu Ile Pro Val Arg Ala His Lys Thr Asp Lys Gln
785                 790                 795                 800
Leu Asp Gln Tyr Val Ala Ser Leu Phe Arg Glu Asp Ile Glu Ser Asn
                805                 810                 815
Phe Gln Leu Gly Cys Pro Phe Leu Arg Leu Phe Tyr Val Glu Gly Asn
            820                 825                 830
Asn Gly Glu Ser Cys Leu Val Ile Gly Leu Ser His Ala Gln Tyr Asp
        835                 840                 845
Gly Val Ser Leu Pro Arg Leu Leu Gln Asp Leu Asp Ala Leu Tyr Thr
    850                 855                 860
Gly Thr Gln Leu Ala Thr Phe Ser Pro Phe Ser Leu Tyr Met Ala Gln
865                 870                 875                 880
Thr Ser Glu Glu Ala Ile Gln Asn Lys Ala Ala Ala Tyr Trp Arg Asn
                885                 890                 895
Leu Leu Ser Ser Ser Ser Leu Ser Thr Leu Asp Gly Pro Ser Ser Asp
            900                 905                 910
Pro Thr Asp Lys Ala Ile Phe His Thr Arg Pro Val Asn Ile His Pro
        915                 920                 925
Leu Lys Glu Ile Thr Thr Ala Asn Leu Leu Thr Ala Ala Trp Ala Met
    930                 935                 940
Val Leu Ala Arg Arg Leu Gln Thr Pro Asp Val Thr Phe Gly Ser Val
945                 950                 955                 960
Thr Ser Gly Arg Thr Leu Asp Ile Pro Asn Ala Glu Asn Phe Met Gly
```

```
                965                 970                 975
Pro Cys Tyr Gln Leu Thr Pro Val Arg Val Pro Phe His Pro Asp Trp
            980                 985                 990
Thr Ala Ser Asp Leu Leu Asn Phe Val Gln Thr Gln Ser Ala Glu Ser
        995                 1000                1005
Ala Ala His Asp Phe Leu Gly Phe Glu Lys Ile Ala Lys Leu Ala Gly
    1010                1015                1020
Trp Ala Ser Glu Arg Gln Gly Phe Asp Ser Ile Val His His Gln Asp
1025                1030                1035                1040
Trp Glu Asp Phe Asp Met Met Pro Phe Gly Gly Gly Ser Cys Arg Val
                1045                1050                1055
Asp Ile Ala Asn Pro His Gly Asp Ala Ala Tyr Pro Val Lys Ala Val
            1060                1065                1070
Ser Phe Val Lys Glu Gly Glu Ile His Val Gly Val Val Gly Ser Glu
        1075                1080                1085
Arg Asp Val Met Phe Val Asp Glu Val Leu Gly Glu Leu Ala Ala Ala
    1090                1095                1100
Val Val Glu Leu Ala Gly Gln Ser Thr Glu Val Leu Leu Asp Ser Lys
1105                1110                1115                1120
Leu Phe Ser Gly Gln
                1125
```

<210> 37112
<211> 178
<212> PRT
<213> A.fumigatus

<400> 37112

```
Asp Val His Ser Ser Asp Phe Ser Thr Ser Arg Glu Thr Thr Ala Asn
1               5                   10                  15
Pro Ala Ser Ser Ser Ala Tyr Pro Thr Pro Asn Thr Met Ala Ser Pro
            20                  25                  30
Cys Pro Asp Ser Ser Lys Thr Ser Thr Pro Tyr Thr Pro Ala Pro Ser
        35                  40                  45
Ser Pro Pro Ser Pro His Ser Pro Cys Thr Trp Pro Arg Pro Val Lys
    50                  55                  60
Arg Gln Phe Lys Thr Arg Gln Arg Pro Thr Gly Ala Thr Ser Ser Pro
65                  70                  75                  80
Ala Pro His Ser Arg Pro Ser Thr Asp Pro Pro Leu Ile Pro Pro Thr
                85                  90                  95
Lys Gln Ser Ser Thr Leu Ala Arg Ser Thr Ser Ile Pro Ser Arg Arg
            100                 105                 110
Ser Pro Pro Gln Thr Ser Ser Gln Gln Pro Gly Arg Trp Ser Ser Leu
        115                 120                 125
Ala Val Ser Lys Pro Gln Thr Ser Pro Ser Ala Ala Ser Pro Pro Ala
    130                 135                 140
Ala Pro Ser Thr Phe Pro Thr Pro Lys Thr Ser Trp Ala Pro Ala Thr
145                 150                 155                 160
Ser Ser Pro Pro Ser Gly Ser Pro Ser Ile Pro Thr Gly Pro Gln Ala
                165                 170                 175
Thr Cys
```

<210> 37113
<211> 397
<212> PRT

<213> A.fumigatus

<400> 37113

```
Gly Cys Thr Ala Cys Thr Leu Tyr Ala Asn Asp His Gly Pro Arg Ser
1               5                  10                  15
Leu Arg Arg Phe Leu Pro Ala Ala Arg His Arg Gln Leu Arg Leu Ala
            20                  25                  30
Trp Thr Arg Val Ile Gln Ala Phe Pro Ile Leu Arg Thr Val Phe Pro
        35                  40                  45
Arg Phe Arg Gly Arg Phe Ile Gln Leu Val Val Arg Asp Ile Gly Asp
    50                  55                  60
Ser Asn Phe Tyr Arg Ile Val Glu Ala Pro Ser Gly Gln Thr Ala Glu
65                  70                  75                  80
Glu Trp Ala Arg Ala Leu Cys Thr Glu Ala Ile Gln Phe Arg Cys Pro
                85                  90                  95
Val Asp Arg Pro Val Ala Gln Leu Thr Leu Ile Gln Ala Ala Gly Ser
            100                 105                 110
Ser Ala Leu Val Leu Arg Leu Cys His Ala Gln Tyr Asp Gly Ser Cys
        115                 120                 125
Leu Glu His Leu Val Arg Ser Leu Met Met Ala Tyr His Gly Arg Pro
    130                 135                 140
Leu Val Val Glu Ser Asp Phe Gln Ala Tyr Thr Arg Thr Cys Leu Arg
145                 150                 155                 160
Leu Arg Ile Pro Glu Val Leu Asp Phe Trp Arg Arg Ile Leu Ala Gly
                165                 170                 175
Ser Ser Pro Thr Gln Leu Ala Ser Ser Met Thr Gly Asp Arg Glu Ala
            180                 185                 190
Ala Arg Lys Ile Asn Arg Ser Phe Phe Arg Arg Glu Val Asn Ser Leu
        195                 200                 205
Ala Ala Pro Ala Gly Phe Thr Leu Ala Thr Val Val Lys Ala Ala Trp
    210                 215                 220
Ser Trp Val Leu Arg Asn Glu Thr Arg Ser Glu Asp Val Val Phe Gly
225                 230                 235                 240
Gln Leu Val Ser Cys Arg Gly Ser Val Pro Leu Pro His Ala Asp Thr
                245                 250                 255
Ile Ile Gly Pro Cys Met Asn Ile Ile Pro Val Arg Val Gly Arg Asp
            260                 265                 270
Leu Leu Gly Ala Val Gln Ala Gln His Ala Gln Thr Met Glu Phe Asp
        275                 280                 285
Met Ile Gly Met Asp Glu Ile Val Arg His Cys Thr Ser Trp Pro Ala
    290                 295                 300
Gly Thr Glu Pro Asp Ser Ile Ile Ile His Glu Asn Phe His Val Asp
305                 310                 315                 320
Trp Glu Val His Asp Gly Gly Val Thr Ile Gln Lys Ile Ala Ala Val
                325                 330                 335
Phe Asn Gln Gln Pro Ser Ser Leu Thr Phe Leu Ile Thr Ile Pro Thr
            340                 345                 350
Glu Thr Gly Leu Ile Ala Val Leu Met Ala Pro Ala Asn Met Ser Ser
        355                 360                 365
Thr His Ala Asp Arg Val Leu Asp Leu Phe Cys Asn Thr Leu Thr Arg
    370                 375                 380
Leu Ala Trp Ser Pro Ala Ala Val Leu Arg Arg Ser Glu
385                 390                 395
```

<210> 37114
<211> 352

<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (339)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37114

```
Phe Trp Arg Phe Gln Leu Arg Asp Ser Thr Ala Leu Asn Pro Glu Lys
1               5                  10                  15
Val Arg Gly Asn Pro Leu Val Glu Ile Pro Asn Trp Thr Thr Val Ala
            20                  25                  30
Ile Leu Ala Glu Phe Arg Ala Gly Gly Ala Phe Val Leu Leu Asp Pro
        35                  40                  45
Thr Gln Pro Ala Ala Tyr Leu Ser Ala Ile Cys Thr Met Thr Arg Thr
    50                  55                  60
Ala Leu Leu Leu Cys Ser Ser His Asn Gln Arg Leu Ala Ala Glu Leu
65                  70                  75                  80
Arg Gln Thr Thr Ile Gln Val Pro Arg Asp Pro Tyr His Gly Ala Met
                85                  90                  95
Pro Thr Ser Asp Phe Arg Arg Gln Ser Ser Pro Ala Val Gln Pro His
            100                 105                 110
His Thr Leu Tyr Ala Cys Phe Thr Ser Gly Ser Thr Gly Arg Pro Lys
        115                 120                 125
Gly Phe Ile Ile Asp His Val Ala Phe Asn Ser Gly Leu Gln Thr Tyr
    130                 135                 140
Ala His Ala Thr Gly Leu Gly Cys Asp Ser Arg Val Phe Gln Phe Ala
145                 150                 155                 160
Ser Tyr Ser Phe Ala Pro Ser Ile Thr Asp Gln Leu Ala Ser Leu Ile
                165                 170                 175
Val Gly Ala Ser Ile Cys Val Pro Ala Glu Glu Glu Leu Gln Asn Asp
            180                 185                 190
Val Glu Gly Ser Ile Ser Gln Leu Gln Ala Thr Trp Leu Lys Leu Thr
        195                 200                 205
Pro Ser Val Ala Arg Thr Leu Asp Pro Gly Arg Leu Pro Cys Val Lys
    210                 215                 220
Thr Leu Ile Leu Val Gly Glu Glu Ala Gln Val Ser Asp Val Ala Ala
225                 230                 235                 240
Trp Gln Asp His Gly Ile Thr Val Leu Gly Leu Tyr Gly Gln Ser Glu
                245                 250                 255
Asn Ala Lys Gly Thr Met Val Ser Arg Lys Ser Ser Glu Asp Ala Asp
            260                 265                 270
Pro Gly Asn Ile Gly Ser Pro Phe Cys Ala Val Gly Trp Val Val Asp
        275                 280                 285
Pro Asp Asp Tyr His Arg Leu Met Pro Ile Gly Ala Thr Gly Glu Leu
    290                 295                 300
Leu Leu Glu Ser Pro Cys Leu Cys Arg Gly Tyr Ile Asp Asn Glu Asp
305                 310                 315                 320
Glu Thr Lys Leu Ala Phe Val Ser Lys Pro Ser Trp Leu Thr Gln Val
                325                 330                 335
Arg Gly Xaa Gly Thr Ala Gln Pro Leu Leu Arg Thr Gly Asp Ile Val
            340                 345                 350
```

<210> 37115
<211> 367

<212> PRT
<213> A.fumigatus

<400> 37115

```
Tyr Asn Cys Val Asp Gly Thr Phe Cys Leu Val Gly Arg Lys Gly Asn
1               5                  10                  15
Arg Val Lys Leu Arg Gly Gln Arg Leu Glu Leu Ala Gln Val Glu His
            20                  25                  30
His Leu Arg Ser Cys Leu Ser Ser Thr His Pro Val Leu Ala Asp Val
        35                  40                  45
Val Gln Pro Ala Asn Glu Asn Gly Arg Asp Pro Met Leu Val Ala Phe
    50                  55                  60
Val Pro Trp Ala Asp Ser Gln Ser Ala Ala Asp Ala Thr Asp Gly Phe
65                  70                  75                  80
Phe Ala Pro Pro Thr Lys Asp Phe Gln Thr Gln Ala Arg Ala Val Leu
                85                  90                  95
Gly Arg Leu Arg His Leu Leu Pro Ser Phe Met Val Pro Ser Thr Leu
            100                 105                 110
Leu Ala Val Arg Thr Ile Pro Arg Thr Gly Thr Gly Lys Ile His Arg
        115                 120                 125
Arg Arg Leu Arg Glu Ala Ala Ser Met Leu Ser Arg Lys Gln Leu Met
    130                 135                 140
Ala Tyr Ile Ser Pro Phe Ile Pro Tyr Arg Ala Pro Glu Thr Glu Leu
145                 150                 155                 160
Glu Arg Lys Leu Gln Arg Ala Cys Gly Arg Leu Leu Asn Ile Glu Ala
                165                 170                 175
Asp Gln Ile Ser Met Gln Asp Asn Phe Phe Asp Leu Gly Gly Asn Ser
            180                 185                 190
Leu Thr Ala Arg Gln Leu Val Ala Val Ala Arg Ala Glu Gly Leu Gln
        195                 200                 205
Val Ser Val Ala Gln Ile Phe Gln Gln Pro Thr Leu Ala Gly Leu Ala
    210                 215                 220
Gln Thr Asp Arg His Pro Val Arg Arg Ala Glu Val Pro Arg Ser Ser
225                 230                 235                 240
His Asp Pro Asp Pro Phe Gly Arg Val Arg Asp Asp Val Arg Arg Glu
                245                 250                 255
Gly Leu Pro His Ile Ala Arg Gly Asn Ile Glu Asp Ala Leu Pro Val
            260                 265                 270
Leu Tyr Thr Gln Met Thr Thr Ala Arg Asp His Cys Val Asp Phe Phe
        275                 280                 285
Pro Leu Arg Val Ile Gly Asn Phe Val Trp His Gly Leu Gly Ser Ser
    290                 295                 300
Lys Pro Ser Pro Phe Tyr Gly Arg Cys Ser Pro Asp Ser Gly Ala Ala
305                 310                 315                 320
Leu Ser Ser Leu Leu Ser Gly Ile Ser Glu Thr Gln Thr Phe Thr Glu
                325                 330                 335
Ser Ser Lys Leu His Pro Ala Arg Arg Pro Arg Ser Gly Gln Gly Pro
            340                 345                 350
Ser Val Arg Arg Gln Ser Asn Ser Asp Ala Gln Ser Thr Gly Leu
        355                 360                 365
```

<210> 37116
<211> 99
<212> PRT
<213> A.fumigatus

<400> 37116
Arg Leu Ile Val Leu Ile Ala Glu Tyr Gly Ser Asp Thr Ala Val Ala
1 5 10 15
Ser Gly Ala Val Leu Arg Ala Leu Asn Gln Glu Leu Gly Pro Ile Arg
20 25 30
Ile Ile Gln Ser Ser Tyr Gly Tyr Leu Arg Thr Glu Pro Trp Asp Pro
35 40 45
Glu Leu Ile Lys Ala His Asn Ser Ser Lys Pro Lys Gln Val Asp Pro
50 55 60
Asn Asn Gly Asp Leu Tyr Val Lys Asn Thr Ile Cys Trp Val Leu Lys
65 70 75 80
Lys Val Trp Arg Arg Arg Pro Arg Pro Lys Leu Val Tyr Ile Val Cys
85 90 95
Trp Leu Thr

<210> 37117
<211> 170
<212> PRT
<213> A.fumigatus

<400> 37117
Ile His Ala Gly Gln Gly Asp Glu Val Pro Pro Phe Ala Glu Tyr Arg
1 5 10 15
Phe Arg Thr Leu Phe Thr Phe Pro Ala Asn Thr Lys Gln Arg Phe Lys
20 25 30
Cys Asn Gln His Leu Tyr Val Ser Asp Met Thr Phe Leu Arg Thr Glu
35 40 45
Gly His Ile Arg Pro Val Lys Pro Asp Asn Glu Leu Gly Arg Arg His
50 55 60
Tyr Arg Val Glu Tyr Asp Leu Val Met Ile Val Asp Gly Tyr Asn Ile
65 70 75 80
Arg Tyr Glu Ala Arg Trp Asp Asn Gly Gln Gly Glu Gln Val His Ala
85 90 95
Glu Lys Gln Ile Asn Ile Ala Ala Ala Phe Ala Ser Leu Glu Pro Glu
100 105 110
Trp Glu Ser Asp Glu Asp Gly Glu Glu Tyr Leu Thr Asp Leu Cys Ile
115 120 125
Gln Ser Gly Gln Arg Ser Lys Ser Ile Ala Ile Val Asp Cys Ser Ile
130 135 140
Pro Thr Ala Ile Cys Leu Leu Asn Gly Thr Met Gln Val Ala Asp Val
145 150 155 160
Cys Ser Ile Pro Pro Ala Thr His Cys Leu
165 170

<210> 37118
<211> 751
<212> PRT
<213> A.fumigatus

<400> 37118
Ser Ser Arg Pro Leu Arg Ile Pro Leu Gly Tyr Val Tyr Leu Asn Arg
1 5 10 15
Ser Phe Ala Ile Thr Leu Thr Glu Asn Ala Val Phe Glu Pro Val Cys
20 25 30
Thr Ser Gln Pro Thr Asp Thr Arg Gln Pro Ser Pro Leu Leu Asp Thr

```
        35                  40                  45
Arg Asp Pro Phe Tyr Ser Ser Val Thr Pro Gln Leu Tyr Ala Ile Gly
    50                  55                  60
Cys Ala Thr Val Val Ser Tyr Leu Leu Val Ile Ile Leu Leu Ile Thr
65                  70                  75                  80
Pro Arg Thr Phe Tyr Val Gly Gly Pro Gly Gly Gly Ala Asn Phe Leu
                85                  90                  95
Gly Arg His Gly Met Ile Ser Gly Ser Tyr Ser Gly Asn Ser Ser Val
            100                 105                 110
Val Gly Val Gly Gly Arg Pro Trp Leu Gln Lys Val Ala Ala Ile Leu
        115                 120                 125
Val Ala Val Ser Leu Thr Ile Ala Ser Ala Asp Ser Phe Arg Val Ala
    130                 135                 140
Glu Arg Gln Tyr Asn Tyr Gly Tyr Ser Asp Ala Glu Ala Leu Thr Glu
145                 150                 155                 160
Glu Val Ile Asp Gly Thr Glu Ile Arg Val Val Arg Val Ile Ser Ser
                165                 170                 175
Thr Phe Leu Trp Leu Ala Gln Val Gln Thr Leu Ile Arg Leu Phe Pro
            180                 185                 190
Arg His Lys Glu Lys Ile Met Ile Lys Trp Ala Gly Phe Ala Leu Ile
        195                 200                 205
Val Leu Asp Thr Ile Phe Ser Ile Leu Asp Lys Phe Leu Val Lys Thr
    210                 215                 220
Asn Thr Thr Arg Pro Arg Leu Tyr Asp Asp Ala Ile Pro Ala Leu Ser
225                 230                 235                 240
Tyr Leu Phe Glu Leu Ala Leu Asn Leu Leu Tyr Ala Ala Trp Val Ile
                245                 250                 255
Phe Tyr Ser Leu Ser Lys His Arg Tyr Ala Phe Phe His Pro Lys Met
            260                 265                 270
Arg Asn Ile Cys Leu Val Ala Leu Leu Ser Leu Cys Ala Val Leu Ile
        275                 280                 285
Pro Val Ile Phe Phe Val Leu Asp Ile Ala Lys Glu Glu Ile Ala Gly
    290                 295                 300
Trp Gly Thr Tyr Ile Arg Trp Val Gly Ser Ala Ala Ala Ser Val Val
305                 310                 315                 320
Val Trp Glu Trp Val Glu Arg Ile Glu Ala Leu Glu Arg Asp Glu Arg
                325                 330                 335
Lys Asp Gly Ile Leu Gly Arg Glu Leu Phe Asp Gly Asp Glu Met Leu
            340                 345                 350
Glu Val Thr Pro Ser Glu Glu Val Asp Trp Pro Arg Gln Thr Tyr Gly
        355                 360                 365
Gly Gly Asp Arg Asp Gly Gly Ser Gly Thr Ser Ser Gly Trp Gly Gly
    370                 375                 380
Val Met Gly Leu Ala Asn Arg Pro Leu Arg Thr Arg Val Gly Leu Pro
385                 390                 395                 400
Arg Gly Asn Arg Lys Pro Asp Lys Gln Arg Lys Thr Val Ser Ser Asp
                405                 410                 415
Val Arg Arg His Gly Ala Gly Arg Pro Thr Pro Pro Pro Ala Ala Thr
            420                 425                 430
Thr Pro Val Ser Arg Ala Asp Thr Thr Ser Ala Ala Ser Thr Val Tyr
        435                 440                 445
Asn Val His Tyr His Pro Val Ser Ser Pro Thr Pro Pro Val Val Met
    450                 455                 460
Pro His Met Glu Glu Glu Asp Glu Tyr Glu Thr Gly Gln Leu Lys Glu
465                 470                 475                 480
Met Thr Met Arg Thr Glu Asp Gly Gly Gly Asp Val Gly Gln Pro Arg
```

```
                485                 490                 495
Leu Ser Ala Gln Gln Thr Arg Glu Glu Ser Pro Gln Ile Val Asn Met
            500                 505                 510
Asp Gly Arg Trp Arg Thr Leu Leu Asn Pro Phe Arg Lys Arg Arg Ala
        515                 520                 525
Ser Leu Pro Arg Glu Val Ala Ser Ala Gln Ala Asp Glu Asp Pro Ser
    530                 535                 540
Thr Ala Gln Glu Asp Leu Tyr Gly Asp Glu Gly Asp Arg Pro Arg Ala
545                 550                 555                 560
Ala Cys Ser Lys Gln Gly Tyr Leu Phe Pro Phe Asn Phe Arg Ile Arg
                565                 570                 575
Pro Gly Ser Asp Lys Arg Asp Ala Asp Ala Ser Leu Pro Val Thr Val
            580                 585                 590
Ile Pro Ala Arg Arg Arg Gly Gln Asn Thr Trp Ser Pro Gln Trp Leu
        595                 600                 605
Asn Asp Ala Asn Ile Leu Glu Pro Thr Pro Asn Arg Val Val Arg Ser
    610                 615                 620
Asn Arg Ser Asn Leu Pro Val Arg Val Ile Gln Pro Gln Thr Arg Thr
625                 630                 635                 640
Ala Ala Pro Trp Ser Ile Pro Glu Gly Asp Thr Ile Leu Gly Asn Gly
                645                 650                 655
Asn Tyr Glu Leu Arg Tyr Asp Pro Glu Thr Ala Ala Leu Ile Val Pro
            660                 665                 670
Asp Gly His Gln Ala Gln Gln Arg Thr Ala Ala Ser Ser Thr Ala His
        675                 680                 685
Asn Gly Asp Gly Gln Pro Val Asp Glu Ala Thr Ala Gly Pro Ala Gly
    690                 695                 700
His Asp Ala Pro Asp Met Leu Arg Glu Ser Gln Ile Ser Ala Pro Pro
705                 710                 715                 720
Glu Gln Pro Pro Ser Ser Thr Pro Ser Arg Gln Asp Gly Gln Arg Ser
                725                 730                 735
Pro Thr His Pro Ser Leu Gly Gly Asp Pro Ser Arg Asp Asp Thr
            740                 745                 750
```

<210> 37119
<211> 464
<212> PRT
<213> A.fumigatus

<400> 37119

```
Leu Asp Leu Leu His Lys Leu Asp Asn Thr Gly Asp Val Ala Arg Leu
1               5                   10                  15
Cys Arg Thr Cys Arg Val Leu Asn Tyr Met Ala Leu Pro Gln Leu Tyr
            20                  25                  30
Lys His Ile Thr Leu Thr Ser Tyr Asp Lys Ile Arg Tyr Arg Gly Asp
        35                  40                  45
Glu Pro Glu Gly Ile Gly Ser Ala Ser Pro Phe Ser Met Gly Leu Asn
    50                  55                  60
Ala Ile Ile Thr Arg Pro Tyr Ala Ser Leu Val Arg Ser Leu Thr Leu
65                  70                  75                  80
Arg Gly Asp Trp Arg Glu Asn Glu Leu Glu Glu His Ala Arg Val Gly
                85                  90                  95
Arg Val Pro Asp Ser Ser Met Met Leu Asn Ile Ala Val Arg Ala Ala
            100                 105                 110
Val Asp Arg Met Thr Glu Leu Glu Ser Phe Ser Trp Glu Leu Ser Thr
        115                 120                 125
```

```
Lys Met Leu Glu Thr Val Tyr Leu Gly Leu Ala Gln Arg Pro Lys Leu
    130                 135                 140
Thr Ser Leu Ser Ile Arg Phe Pro Ser Ser Arg His Pro Arg Pro Thr
145                 150                 155                 160
Ile Val Ile Pro Pro Met Pro His Leu Arg Ser Leu Lys Ile Thr His
                165                 170                 175
Ile Asp Pro Leu Cys Tyr Pro Asp Asp Ile Ser Thr Leu Leu Trp Lys
            180                 185                 190
Cys Lys Lys Leu Arg Glu Leu Lys Met His Trp Ser Pro Arg Met Arg
        195                 200                 205
Ile Glu Gln Glu Pro Ser Val Met Leu His Asp Tyr Phe Arg Lys Cys
    210                 215                 220
Ile Ala Ala Arg Gln Pro Leu Lys Val Lys Lys Leu Ala Leu Gln Asn
225                 230                 235                 240
Leu Tyr Ala Arg His Ser Glu Glu Phe Lys Val Ala Leu Asp Pro Ser
                245                 250                 255
Ala Leu Glu Asp Met Thr Phe Leu Ser Glu Cys Gly Ser Glu Ser Ala
            260                 265                 270
Lys Ser Leu Asn Thr Phe Phe Asp Ser Ser Trp Pro Lys Gly Pro Pro
        275                 280                 285
Gly Gln Val Asn Phe Lys Ser Leu Arg Gln Asp Ser Thr Ser Arg Arg
    290                 295                 300
His Ala Glu Phe Leu Ser Tyr Phe Thr Gly Leu Glu Arg Leu Tyr Phe
305                 310                 315                 320
Val Asn Ala Ser Arg Asp Ser Ser Asp Asp Val Asn Ser Pro Arg Arg
                325                 330                 335
Leu Leu Pro Ser Ser Ala Leu Thr Pro Pro Ser Leu Asp His Thr Ala
            340                 345                 350
Asn Ser Ser Thr Leu Ser Ala Ser Thr Glu Glu Thr Pro Ala Ala Ser
        355                 360                 365
Pro Gly Ser Asn Thr Gly Val Gln Ala Ser Ile Arg Asp Ile Tyr Leu
    370                 375                 380
Asn Ser Ile Ile Met Asn His Cys Ala Thr Leu Arg His Leu Leu Leu
385                 390                 395                 400
Pro Ser Arg Trp Pro Leu Ser Ala Ser Thr Ile Ala Arg Leu Val His
                405                 410                 415
Ala Ser Pro Gln Leu Glu Gln Leu Ala Leu Ala Thr Asp Leu Ser Ser
            420                 425                 430
Met Asp Thr Leu Gly Leu Val Leu Pro Phe Leu Arg Asn Leu Val Ala
        435                 440                 445
Val Arg Leu Leu Val Pro Thr Gly Pro Gly Ser Ser Ser Ala Val Phe
    450                 455                 460
```

<210> 37120
<211> 511
<212> PRT
<213> A.fumigatus

<400> 37120

```
Leu Glu Leu Arg Val Leu Ser Gly Gln Ser Trp Lys Cys Val Asn Gln
1               5                   10                  15
Ile Arg Ala His Glu Ala Gln Val Thr Asp Val Ala Leu His Val Val
            20                  25                  30
Ser Asp Ser Cys Leu Ile Ala Ser Ser Gly Arg Asp Arg Met Val Gln
        35                  40                  45
Leu Phe Arg Ser Thr Asp Glu Ser Leu Glu Leu Val Gln Thr Met Asp
```

```
    50                  55                  60
Asp His Val Gly Ser Val Asn Gln Leu Leu Phe Ile Asn Asn Gly Glu
65                  70                  75                  80
Lys Leu Leu Ser Cys Ser Ser Asp Arg Thr Val Phe Ile Arg Glu Arg
                85                  90                  95
Met Thr Arg Glu Thr Ser Gly Glu Thr Ala Ile Ala Tyr Leu Ala Ser
            100                 105                 110
Arg Ala Val Thr Leu Lys Ala Ser Pro Val Ser Met Thr Leu Ser Thr
        115                 120                 125
Glu Asp Pro Asn Ile Leu Ile Ile Ser Thr Val Asp Arg Cys Ile Gln
    130                 135                 140
Gln Tyr Asp Leu Asp Ser Gly Lys Gln Thr Arg Ser Phe Arg Thr Thr
145                 150                 155                 160
Asp Ser Asp Ser Ser Asp Thr Val Val Met Thr Ala Leu Ser Met Ala
                165                 170                 175
Ser His Ile Pro Gly Lys Cys Pro Thr Leu Leu Met Gly Val Ala Ser
            180                 185                 190
Thr Asp Lys Ser Ile Arg Val Tyr Asp Met Glu Arg Glu Ala Leu Leu
        195                 200                 205
Thr Ala Glu Phe Gly His Ala Glu Gly Val Ser Asp Val Cys Leu Leu
    210                 215                 220
Thr Arg Asp Ser Asp Cys Ser Gly Lys Pro Pro Ser Arg Thr Leu Val
225                 230                 235                 240
Ser Ala Gly Met Asp Gly Val Val Met Ile Trp Asp Leu Val Val Gln
                245                 250                 255
Ala Gln Gln Ser Pro Asp Tyr Thr Gln Thr Asn Leu Ser Glu Glu Glu
            260                 265                 270
Val Asp Ser Val Ser Lys Lys Ser Thr Val Ser Lys Pro Leu Arg Lys
        275                 280                 285
Ile Leu Ser Lys His Glu Leu Ala Gly Phe Gln Arg Gln Asp Asn Ile
    290                 295                 300
Thr Gly Thr Pro Thr Pro Val Arg Asp Ser Ser Gln Ser Leu Ala Arg
305                 310                 315                 320
Lys Ile Ser Lys Ile Ser Leu Thr Pro Ser Ser Leu Lys Asn Glu Lys
                325                 330                 335
Ser Ala Pro Ala Thr Pro Pro Phe Ser Arg Ser Asp Arg Arg Ser Pro
            340                 345                 350
Pro Ser His Ser Arg Leu Gln Lys Leu Arg Lys Ser Pro Ser Pro Ser
        355                 360                 365
Arg Arg Ser Thr Pro Gly Lys Lys Leu Gly Asn Thr Asn Asn His Ser
    370                 375                 380
Arg Arg Ile Ser Leu Asp Phe Arg Ser Arg Gly Arg Asn Val Ser Lys
385                 390                 395                 400
Ser Glu Ser Gly Ser Leu Asn Ile Ser Thr Glu Gln Val Cys Arg Thr
                405                 410                 415
Leu Lys Ala Tyr Arg Lys Lys Leu Asn Thr Ser Thr Glu Tyr Leu His
            420                 425                 430
Ser Gln Lys Glu Leu Gln Arg Glu Leu Asp Leu Thr Leu Arg Val Leu
        435                 440                 445
Ala Ala Arg Pro Asn Gly Cys Gly Asn Ala Glu Thr Glu Thr Asp Ser
    450                 455                 460
Ser Gly Lys Glu Asn Asp Gly Asn Gln Asn Ala Leu Gln Ser Pro His
465                 470                 475                 480
Arg Met His Ser Ala Pro Ser Leu Arg Gln Lys Gly Thr Tyr Asn Arg
                485                 490                 495
Ser Arg Ile Leu Cys Ser Asn Asp Asn Gly Glu Asn Ser Ser Glu
```

500 505 510

<210> 37121
<211> 676
<212> PRT
<213> A.fumigatus

<400> 37121
Thr Leu Pro Pro Trp Cys Ser Ala Leu Ser Asp Leu Tyr Tyr Arg Asp
1 5 10 15
Ser Asn Thr Pro Lys Met Ala Pro Pro Gly Tyr Arg Leu Arg Ala Leu
20 25 30
Ser Leu Ser Pro Val Phe Ser Ile Leu Ile Leu Pro Phe Leu Leu Phe
35 40 45
Phe Leu Ser Phe Pro Ala Pro Thr Ser Ala Ala Gly Ser Ala Val Leu
50 55 60
Gly Val Asp Val Gly Thr Glu Tyr Ile Lys Ala Ala Leu Val Lys Pro
65 70 75 80
Gly Ile Pro Leu Glu Ile Val Leu Thr Lys Asp Ser Lys Arg Lys Glu
85 90 95
Ser Ala Ala Val Ala Phe Lys Pro Thr Arg Glu Ser Asn Ala Pro Phe
100 105 110
Pro Glu Arg Phe Tyr Gly Gly Asp Ala Leu Ala Leu Ala Ala Arg Tyr
115 120 125
Pro Asp Asp Val Tyr Ala Asn Leu Lys Ala Leu Leu Gly Val Gln Phe
130 135 140
Gln Asn Gly Asp Asn Glu Met Val Lys Thr Tyr His Asn Arg Tyr Pro
145 150 155 160
Ala Leu Arg Leu Glu Ala Ala Pro Gly Asp Arg Asp Thr Val Gly Leu
165 170 175
Arg Ser Asn Arg Leu Gly Glu Ala Glu Arg Lys Asp Ala Phe Leu Val
180 185 190
Glu Glu Leu Leu Ala Met Gln Leu Lys Gln Ile Lys Gly Asn Ala Asp
195 200 205
Ser Leu Ala Gly Lys Gly Ser Asp Val Arg Asp Val Ile Ile Thr Tyr
210 215 220
Pro Ser Phe Tyr Thr Ala Glu Glu Lys Arg Ser Leu Glu Leu Ala Ala
225 230 235 240
Glu Leu Ala Gly Leu Lys Val Glu Ala Leu Ile Ser Asp Asn Leu Ala
245 250 255
Val Gly Leu Asn Tyr Ala Thr Ser Arg Thr Phe Pro Ser Val Ser Glu
260 265 270
Gly Gln Lys Pro Glu Tyr His Ile Ile Tyr Asp Met Gly Ala Gly Ser
275 280 285
Thr Thr Ala Ser Val Ile Arg Phe Gln Ser Arg Ala Val Lys Asp Val
290 295 300
Gly Lys Phe Asn Lys Thr Val Gln Glu Val Gln Val Leu Gly Thr Gly
305 310 315 320
Trp Asp Arg Thr Leu Gly Gly Asp Ser Leu Asn Asp Leu Ile Val His
325 330 335
Asp Met Val Ala Asn Leu Ala Glu Asp Lys Lys Leu Lys Gly Arg Ala
340 345 350
Thr Pro Ala Glu Ile Gln Ala His Gly Lys Thr Met Ala Arg Leu Trp
355 360 365
Lys Asp Ala Glu Lys Val Arg Gln Val Leu Ser Ala Asn Thr Glu Thr
370 375 380

```
Gly Ala Ser Phe Glu Ser Leu Tyr Glu Glu Asp Leu Asn Phe Lys Tyr
385                 390                 395                 400
Arg Ile Thr Arg Ser Lys Phe Glu Glu Leu Ala Ala Asp His Ile Ala
                405                 410                 415
Arg Ile Gly Gly Pro Ile Glu Arg Ser Leu Ala Ala Ala Gly Leu Gln
            420                 425                 430
Leu Ser Asp Ile Asp Ser Ile Ile Leu His Gly Gly Ala Ile Arg Thr
        435                 440                 445
Pro Phe Val Gln Lys Glu Leu Glu Arg Ile Thr Gly Ser Ser Glu Lys
    450                 455                 460
Ile Arg Thr Ser Val Asn Ala Asp Glu Ala Ala Val Phe Gly Ala Ala
465                 470                 475                 480
Phe Lys Gly Ala Ala Leu Ser Pro Ser Phe Arg Val Lys Asp Ile Arg
                485                 490                 495
Ala Ser Asp Val Ser Ser Tyr Ala Val Leu Leu Lys Trp Ala Ser Glu
            500                 505                 510
Thr Lys Glu Arg Gln Gln Lys Leu Phe Thr Pro Thr Ser Gln Val Gly
        515                 520                 525
Pro Glu Lys Gln Val Thr Met Lys Asn Leu Asp Asp Phe Glu Phe Ser
    530                 535                 540
Phe Tyr Gln Gln Ile Pro Thr Val Asp Glu Val Val Glu Leu Pro Val
545                 550                 555                 560
Val Arg Val Gln Thr Gln Asn Leu Thr Ala Ser Val Ser Gln Leu Lys
                565                 570                 575
Glu Lys Phe Gly Cys Leu Pro Ala Asn Ile Thr Thr Lys Phe Ser Met
            580                 585                 590
Arg Leu Ser Pro Val Asp Gly Leu Pro Glu Val Thr Gly Gly Ser Val
        595                 600                 605
Ser Cys Glu Phe Glu Val Lys Lys Gly Gly Val Val Glu Asp Val Lys
    610                 615                 620
Gly Phe Phe Gly Leu Gly Ser Lys Lys Asp Glu Gln Thr Pro Leu Gly
625                 630                 635                 640
Glu Asp Arg Glu Pro Thr Glu Ser Ile Thr Leu Glu Ala Glu Glu Pro
                645                 650                 655
Gln Val Ser Thr Thr Ser Ser Ala Ala Glu Ala Ser Thr Thr Ser Thr
            660                 665                 670
Lys Glu Thr Lys
        675
```

<210> 37122
<211> 186
<212> PRT
<213> A.fumigatus

<400> 37122

```
Asp His Phe Phe Pro Leu His Cys Leu Phe Arg Asp Leu His Arg Tyr
1               5                   10                  15
Gly Ser His Trp Ile Phe Phe Tyr Phe Phe Phe Cys Phe Arg Asp Gly
            20                  25                  30
Lys Glu Val Ile Gln Arg Gln Thr Pro Ile Ile Pro Ser Glu Tyr Gln
        35                  40                  45
Lys Tyr Leu Glu Gln Gly Leu Pro Ala Pro Ala Leu Ser Ser Asp Thr
    50                  55                  60
Val Arg Tyr Trp Ser Asp Tyr Asn Arg Leu Phe Tyr His Pro Arg Ser
65                  70                  75                  80
Ile Val Gln Leu Asn Asp Tyr Glu Leu Asn Ser Lys Ile Met Pro Phe
```

```
                85                  90                  95
Glu Asp Trp Ser Val Gly Asp Asp Leu Phe Gly Glu Leu Asp Lys Glu
            100                 105                 110
His Asp Leu Phe Asp Arg Asp Leu Arg Pro Phe Ala Glu Glu Cys Asp
        115                 120                 125
Gln Leu Arg Ala Leu Gln Leu Phe Thr Ser Ser Asp Asp Ala Trp Gly
    130                 135                 140
Gly Phe Ala Ala Lys Tyr Val Asp Arg Leu Arg Asp Glu Phe Gly Lys
145                 150                 155                 160
Lys Ala Val Trp Val Trp Ala Ile Glu Gly Gly Lys Lys Val Gln Lys
                165                 170                 175
Val Ser Leu Phe Pro Pro Arg Cys His Asn
            180                 185
```

<210> 37123
<211> 155
<212> PRT
<213> A.fumigatus

```
<400> 37123
Leu Ala Ile Pro Cys Met Phe Pro Phe Ser Arg Ala Asn Arg Lys Ala
1               5                   10                  15
Gly Pro Tyr Leu Thr Leu Pro Ala Asn Arg Gly Ala Lys Thr Ala Met
            20                  25                  30
Thr Val Ala Leu Gln Ser Ser Asp Leu Val Ser Ala Leu Ile Pro Val
        35                  40                  45
Asp Asn Ala Pro Val Asn Ala Pro Leu Lys Ser Asp Phe Gly Lys Tyr
    50                  55                  60
Val Arg Gly Met Gln Glu Val Glu Ala Gln Gly Val Thr Lys Gln Ser
65                  70                  75                  80
Asp Ala Asp Lys Ile Leu Lys Glu Tyr Glu Glu Val Ser Phe Ser Leu
                85                  90                  95
Leu Cys Ser Asp Trp Val Leu Gly Gln Ser Ser Lys Ser Arg Lys Thr
            100                 105                 110
His Thr Asn Cys Thr Val Pro Pro His Pro Ser Ile Ser Leu Asp Gln
        115                 120                 125
His Ser Ser Arg Gly Arg Trp Ser Glu Asp Glu Ile Pro Tyr Pro Phe
    130                 135                 140
Ile Gly Ala Gly Thr Gly Tyr Ser Cys Tyr Gly
145                 150                 155
```

<210> 37124
<211> 134
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (123)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 37124
Val Ser Pro Ser Cys Ala Gln Thr Gly Ser Trp Val Lys Ala Val Lys
1               5                   10                  15
Ala Gly Lys Leu Thr Pro Ile Ala Gln Ser Leu Pro Ile Arg Gln Phe
            20                  25                  30
```

```
Leu Leu Thr Asn Ile Val Arg Ala Glu Asp Gly Gln Lys Met Lys Phe
        35                  40                  45
Arg Ile Pro Leu Ser Val Leu Gly Pro Ala Ile Pro Ala Met Ala Asp
    50                  55                  60
Phe Pro Phe Leu Glu Pro Gly Ser Val Thr Tyr Asp Gly Pro Thr Leu
65                  70                  75                  80
Phe Val Arg Gly Thr Lys Ser Lys Tyr Val Ser Asp Asp Thr Val Pro
                85                  90                  95
Val Ile Lys Lys Leu Phe Pro Asn Ala Glu Ile Ala Asp Val Glu Ala
            100                 105                 110
Gly His Trp Leu Ile Ser Gln His Pro Glu Xaa Phe Thr Thr Gly Thr
        115                 120                 125
Glu Gly Pro Arg Met Arg
    130
```

<210> 37125
<211> 84
<212> PRT
<213> A.fumigatus

<400> 37125

```
Leu Ala Asp Leu Pro Glu Phe Leu His Val Thr Ser Asn Gly Arg Ser
1               5                   10                  15
Ser Leu Trp Ser Val Ser Gln Cys Ile Leu Ser Val Asp Asp Glu Ile
            20                  25                  30
Ala His Gly Leu Gln Asp Leu Arg Asn His Gly His Ser Phe His His
        35                  40                  45
His Glu His Asn Tyr Ser Val Met Ala Lys Asp Val Glu Lys Phe Ile
    50                  55                  60
His Gln His Asp Leu Ala Lys Cys Val Leu Ile Gly His Ser Met Tyr
65                  70                  75                  80
Val Ser Ile Phe
```

<210> 37126
<211> 450
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1),(3),(4)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37126

```
Xaa Gly Xaa Xaa Leu Val Glu Pro Arg Thr Pro Val Asp Pro Ser Ser
1               5                   10                  15
Pro Val Val Lys Thr Ile Ile Gly Tyr Asn Gly Thr Ala Gln Ser Gly
            20                  25                  30
Tyr Arg Ile Ala Asn Glu Pro Met Thr Asp Ala Leu Tyr Asn Thr Glu
        35                  40                  45
Ser Glu Val His Pro Asp Ile Ser Ser Asn Pro Arg Ile Ser Ile Ile
    50                  55                  60
Ala Leu Pro Pro His Pro Ser Phe Leu Gln Thr Ser Asn Lys Leu Leu
65                  70                  75                  80
Phe Leu Leu Phe Gly Pro Leu Lys Val Ala Phe Gln Ile Val Cys Leu
```

```
                85                  90                  95
Trp Trp Ala Leu Ala Tyr Arg Thr Glu Pro Ala Gln Trp Leu Leu Val
            100                 105                 110
Gln Val Arg Thr Leu Pro Ala Gln Ile Asp Ser Gln Val Ser Phe Leu
        115                 120                 125
Pro Ala Lys Phe Gly Pro Met Gln Asn Pro Pro Ser Ile Pro Thr Leu
    130                 135                 140
Ala Ile Ala Ser Thr Ala Ser Phe Leu Arg His Ser Lys Leu Ile Ile
145                 150                 155                 160
Asp Trp His Asn Phe Gly Tyr Thr Ile Leu Ala Leu Lys Leu Gly Asp
                165                 170                 175
Arg His Pro Leu Val Arg Phe Ser Lys Trp Tyr Glu Lys Ser Phe Cys
            180                 185                 190
Arg Tyr Ala Thr Ala His Phe Cys Val Thr Glu Ala Met Ala Ser Val
        195                 200                 205
Leu Lys Asn His Phe Cys Leu Thr Ala Pro Ile Leu Pro Leu His Asp
    210                 215                 220
Arg Pro Ala Ser His Phe Gln Pro Ile Phe Asp Gln Ser Glu Arg Lys
225                 230                 235                 240
Ser Phe Leu Glu Ser Leu Pro Glu Thr Thr Ser Val Lys Asp Leu Leu
                245                 250                 255
Arg Ala Gly Ser Leu Arg Ile Ile Val Ser Ser Thr Ser Trp Thr Ala
            260                 265                 270
Asp Glu Asp Phe Ser Leu Leu Ile Asp Ala Leu Cys Arg Tyr Ser Asn
        275                 280                 285
Leu Ala Ser Thr Ser Lys Pro Trp Leu Pro Ala Ile Leu Ala Ile Ile
    290                 295                 300
Thr Gly Lys Gly Pro Gln Lys Glu Met Tyr Leu Lys Gln Ile Ser Lys
305                 310                 315                 320
Leu Gln Glu Ala Gly Lys Leu Ser Lys Val Thr Ile Arg Thr Thr Trp
                325                 330                 335
Leu Thr Thr Asp Asp Tyr Ala Arg Leu Leu Ala Ser Ala Ser Leu Gly
            340                 345                 350
Ile Ser Leu His Thr Ser Ser Ser Gly Val Asp Leu Pro Met Lys Val
        355                 360                 365
Val Asp Met Phe Gly Ala Gly Leu Pro Val Leu Gly Trp Asp Arg Phe
    370                 375                 380
Gln Ala Trp Pro Glu Leu Val Thr Glu Gly Val Asn Gly Met Gly Phe
385                 390                 395                 400
Gly Ser Ser Gly Glu Leu Leu Asp His Leu Val Asp Leu Phe Glu Asn
                405                 410                 415
Pro Ser Lys Leu Glu Lys Ile Arg Ala Gly Ala Arg Lys Glu Ser Asn
            420                 425                 430
Arg Arg Trp Asn Asp Glu Trp Asp Pro Ile Ala Gly Arg Leu Leu Gly
        435                 440                 445
Leu Thr
    450
```

<210> 37127
<211> 99
<212> PRT
<213> A.fumigatus

<400> 37127

```
Leu Tyr Ser His Gln Leu Thr Val Asp Ile Tyr Ile Lys Leu Ser Tyr
1               5                   10                  15
```

```
Leu Ser Thr Thr Ala Tyr Ser His Tyr Ser Pro Ala Lys Thr Thr Lys
            20                  25                  30
Ile Ala Asp Leu His Pro Leu Thr Leu Pro Leu Trp Phe Trp Cys Glu
        35                  40                  45
Ile Leu Phe Leu Ile Ile Leu Phe Ala Ser Arg Ser Cys Phe Lys Tyr
    50                  55                  60
Leu Pro Cys Ser Tyr Arg Thr Pro Ile Pro Thr Phe Ile Phe His Leu
65                  70                  75                  80
Ser Phe Met Ile Ile Leu Arg Thr Leu Ala Thr Tyr Leu Leu Gln Tyr
                85                  90                  95
Cys Ala Arg
```

<210> 37128
<211> 70
<212> PRT
<213> A.fumigatus

<400> 37128

```
His Ser Ala Asn Leu Val His Leu Arg Phe Ser Pro Ser Glu Asn Asp
1               5                   10                  15
Val Glu Val Val Asp Val Arg Thr Phe His Ser Phe Asn Asn Phe Pro
            20                  25                  30
Asp Thr Leu Phe Phe Cys Phe Ser Thr Leu Ala Val Asp Leu Asn Leu
        35                  40                  45
Phe Gln Phe Ile Arg Ser Ser Pro Ser Trp Pro Thr Ala Trp Gly Arg
    50                  55                  60
Lys Ser Ala Glu Lys Ala
65                  70
```

<210> 37129
<211> 275
<212> PRT
<213> A.fumigatus

<400> 37129

```
Gln Gln His Arg Lys Asp Ala Ile Ile Gln Ser Phe Asn Leu Asn Leu
1               5                   10                  15
Arg Asp Phe Arg Pro Thr Tyr Arg Glu Ser Val Asp Phe Ile Ser Ile
            20                  25                  30
Ala Val Pro Glu Val Gly Ser Asn Thr Asn Ala Leu Gly Phe Ile Arg
        35                  40                  45
Tyr Glu Lys Lys Ser Gly Arg Val Ile Leu Val Asn Ala Cys Ala Gln
    50                  55                  60
Leu Arg Thr Asp Ala Leu Gln Leu Gly His Thr Ser Lys Lys Gly Gln
65                  70                  75                  80
Leu Gln Phe Ala Gly Cys His Gly Glu Gly Leu Lys Leu Ala Ala Met
                85                  90                  95
Val Met Cys Arg Glu Gly Tyr Ser Val Ser Ile Glu Thr Gly Asn Ser
            100                 105                 110
Tyr Trp Ser Phe Ala Tyr Gly Gly Pro Ser Lys Ser Arg Phe Cys Cys
        115                 120                 125
Asn Ile Gly Pro Leu Ser Val Ala Thr Pro Asp Gly Lys Leu Asn Pro
    130                 135                 140
Ala Gln Asp Met Ala Cys Phe Thr Tyr Arg Thr Trp Arg Asp Val Cys
145                 150                 155                 160
```

```
Val Glu Val Gly Pro Asp Ser Glu Gly Thr Gly Gly Gly Val Ser Leu
                165                 170                 175
Glu Lys Phe Lys Gln Trp Leu Thr Val Ser Leu Asp Ile Arg Gly Tyr
            180                 185                 190
Ser Tyr Pro Glu Ser Ile Ile Glu Thr Asp Gln Gly Asp Leu Ile Ile
        195                 200                 205
Asp Pro Arg Phe Arg Gly Lys Thr Phe Leu Lys Gly Leu Leu Leu Pro
    210                 215                 220
Ala Ser Val Leu Glu Ala Arg Pro Phe Glu Leu Ser Tyr Asn Phe Val
225                 230                 235                 240
Gln Gly Gly Val Asn Arg Asp Arg Gln Arg Leu Ile Ser Arg Tyr Glu
                245                 250                 255
Gln Ala Asp Leu Val Arg Arg Ile Trp Glu Ser Ala Ile Arg Glu Asn
            260                 265                 270
Glu Gly Leu
        275
```

<210> 37130
<211> 79
<212> PRT
<213> A.fumigatus

<400> 37130

```
Pro Leu Arg Pro Met Ile Gly Lys Pro Arg Asn Met Ser Met Ser His
1               5                   10                  15
Pro Leu Leu Leu Thr Tyr Ile Val Ala Val Thr Val Tyr Val Thr Trp
            20                  25                  30
Gly Ser Ala Thr Ile Met Asp Leu Lys Thr Ile Tyr Phe Gly Arg Leu
        35                  40                  45
Val Ser Tyr Gln Pro Val Glu Val Gly Leu Asp Leu Ile His His Ile
    50                  55                  60
Cys Ser Asp Phe Ala Lys Pro Ser Ala Phe Ser Gln Cys Thr Cys
65                  70                  75
```

<210> 37131
<211> 132
<212> PRT
<213> A.fumigatus

<400> 37131

```
Gln Ser Trp Cys Phe Gly Met Gln Gly Ser Ser Thr Phe Arg Tyr Gln
1               5                   10                  15
Leu Asn Cys Gly Leu Asp Leu Leu Ser Ala Ser Gln Glu Asn Gln Asn
            20                  25                  30
Ile Thr Val Pro Phe Leu Gln Val Tyr Val Lys Tyr Ser Phe Asp Gly
        35                  40                  45
Ser Phe His Ile Ile Phe Cys Trp Val Phe Glu Val Gln Asn Val Asp
    50                  55                  60
Arg Ile His Ser Ser Leu Lys Thr Asn Asn Ser Ser Asp Ala Ser Ser
65                  70                  75                  80
Gln Phe Ala Gly Phe Ser Val Ala Leu Glu Leu Phe Pro Gly Glu Glu
                85                  90                  95
Phe Gln Lys Val Phe Ser Leu Gln Ser Arg Thr Thr Asp His Asn Ser
            100                 105                 110
Glu Val Gly Ala Ser Leu His Asp Phe Phe Lys Tyr Ser Lys Lys Asn
        115                 120                 125
```

Ile Gly Thr Gln
130

<210> 37132
<211> 70
<212> PRT
<213> A.fumigatus

<400> 37132
Ser Lys Leu Arg Arg Cys Leu Ala Ile Gly Ser Ser Ala Ala Gly Leu
1 5 10 15
Tyr Asn Ala Gly Met Lys Val Glu Glu Ile Ser Asn Ser Glu Ala Ile
20 25 30
Val Asn Ala Gly Leu Ser Thr Thr Phe Ser Tyr Val Asn Ser Lys Thr
35 40 45
Thr Arg Lys Ser Tyr Ala Ser Arg Phe Ile Lys Glu Thr Gln Ser Arg
50 55 60
His Ile Gly Arg Val Ile
65 70

<210> 37133
<211> 163
<212> PRT
<213> A.fumigatus

<400> 37133
Ser Ser Ala Gly Phe Ser Arg Tyr Arg Met Ser Thr Gly Tyr Ile Arg
1 5 10 15
Pro Ser Arg Leu Ile Ile Leu Pro Met Leu Pro Pro Ser Ser Pro Ala
20 25 30
Ser Pro Ser Pro Trp Asn Cys Ser Pro Ala Lys Asn Phe Arg Lys Ser
35 40 45
Ser Ala Cys Arg Val Ala Leu Leu Thr Thr Ile Arg Arg Ser Gly Arg
50 55 60
Leu Phe Met Ile Phe Leu Ser Ile Pro Arg Arg Ile Ser Val Leu Ser
65 70 75 80
Asp Arg Ser Cys Ala Ser Ser Thr Met Ile Ile Glu Tyr Arg Glu Arg
85 90 95
Arg Gly Ser Thr Arg Thr Ser Leu Ser Asn Ile Pro Ser Val Arg Asn
100 105 110
Leu Ile Leu Val Glu Ala Asp Val Thr Ser Ser Lys Arg Ile Glu Tyr
115 120 125
Pro Thr Ser Ser Pro Asn Leu Gln Arg Ile Ser Ser Ala Thr Arg Ala
130 135 140
Ala Thr Val Val Ala Ala Thr Arg Arg Gly Cys Tyr Gln Leu Ser Asn
145 150 155 160
Tyr Thr Tyr

<210> 37134
<211> 565
<212> PRT
<213> A.fumigatus

<400> 37134
Gln Pro Arg Arg Val Ala Ala Thr Thr Val Ala Ala Arg Val Ala Glu

```
1               5                  10                  15
Glu Met Arg Cys Lys Leu Gly Glu Glu Val Gly Tyr Ser Ile Arg Phe
            20                  25                  30
Glu Asp Val Thr Ser Ala Ser Thr Arg Ile Lys Phe Leu Thr Asp Gly
        35                  40                  45
Met Leu Leu Arg Glu Val Leu Val Asp Pro Leu Leu Ser Arg Tyr Ser
    50                  55                  60
Ile Ile Met Val Asp Glu Ala His Glu Arg Ser Leu Ser Thr Asp Ile
65                  70                  75                  80
Leu Leu Gly Ile Leu Lys Lys Ile Met Lys Arg Arg Pro Asp Leu Arg
                85                  90                  95
Ile Val Val Ser Ser Ala Thr Leu Gln Ala Glu Asp Phe Leu Lys Phe
            100                 105                 110
Phe Ala Gly Glu Gln Phe Gln Gly Asp Gly Glu Ala Gly Glu Leu Gly
        115                 120                 125
Gly Ser Ile Gly Arg Ile Ile Ser Leu Glu Gly Arg Met Tyr Pro Val
    130                 135                 140
Asp Ile Leu Tyr Leu Glu Asn Pro Ala Glu Asp Tyr Val Glu Arg Ala
145                 150                 155                 160
Val Lys Thr Val Phe Asp Ile His Leu Gln Glu Gly Asp Gly Asp Ile
                165                 170                 175
Leu Val Phe Leu Thr Gly Arg Glu Glu Ile Glu Thr Thr Ile Gln Leu
            180                 185                 190
Ile Thr Glu Arg Ala Ala Thr Leu His Pro Lys Thr Pro Ala Leu Leu
        195                 200                 205
Pro Leu Pro Leu Tyr Ser Gly Leu Thr Thr Asp Gln Gln Met Tyr Val
    210                 215                 220
Phe Glu Pro Ala Pro Glu Asn Thr Arg Lys Val Ile Val Ser Thr Asn
225                 230                 235                 240
Ile Ala Glu Ala Ser Val Thr Ile Asn Gly Ile Val Tyr Val Val Asp
                245                 250                 255
Cys Gly Phe Ala Lys Leu Arg Ala Tyr Asn Pro Ser Thr Gly Ile Glu
            260                 265                 270
Thr Leu Thr Ala Val Pro Ile Ser Lys Ala Ala Ala Val Gln Arg Ala
        275                 280                 285
Gly Arg Ala Gly Arg Thr Lys Pro Gly Lys Cys Phe Arg Leu Tyr Thr
    290                 295                 300
Gln Gln Ala Tyr Glu Lys Leu Pro Asp Ala Thr Val Pro Glu Ile Gln
305                 310                 315                 320
Arg Ser Asn Leu Ala Pro Val Ile Met Gln Leu Lys Ala Leu Gly Ile
                325                 330                 335
Asp Asn Ile Val Arg Phe Asp Phe Leu Thr Ala Pro Pro Ala Asp Leu
            340                 345                 350
Val Ile Arg Ala Phe Glu Leu Leu Tyr Ser Leu Gly Ala Val Asp Asp
        355                 360                 365
Tyr Ala Lys Leu Thr Asn Pro Leu Gly Val Arg Met Ala Glu Leu Ala
    370                 375                 380
Leu Asp Pro Met Leu Ala Lys Val Leu Leu Ser Ala Arg Ser Phe Asn
385                 390                 395                 400
Cys Leu Ser Glu Ile Leu Ser Ile Ala Ala Met Ile Ser Leu Gln Gly
                405                 410                 415
Ser Ile Trp Val Gln His Glu Gly Asp Lys Lys Ser Val Glu Ser Ser
            420                 425                 430
Arg Arg Lys Phe Ala Val Glu Glu Gly Asp His Leu Thr Tyr Leu Asn
        435                 440                 445
Val Tyr Gln Ala Phe Val Thr Lys Gly Lys Lys Asp Pro Lys Trp Cys
```

```
    450                 455                 460
Arg Asp Asn Leu Leu Asn Tyr Arg Ser Met Gln Arg Ala Val Ser Ile
465                 470                 475                 480
Arg Thr Gln Leu Lys Arg Tyr Leu Glu Arg Phe Gly Tyr Gln Val Asp
                485                 490                 495
Glu Thr Leu Ser Gly Arg His Gly Thr Ala Asp Leu Ala Arg Pro Ala
            500                 505                 510
Glu Gln Ile Gln Arg Cys Leu Thr Thr Gly Tyr Phe Ala His Ala Ala
        515                 520                 525
Lys Met Gln Pro Asp Gly Thr Phe Lys Thr Val Ser Gly Gly Leu Thr
    530                 535                 540
Leu His Ala His Pro Thr Ser Leu Met Phe Val Arg Ala Arg His Cys
545                 550                 555                 560
Gln Cys Leu Pro Pro
                565
```

<210> 37135
<211> 103
<212> PRT
<213> A.fumigatus

<400> 37135

```
Leu Lys Val Val Asp Arg Pro Ala Leu Thr Met Ala Ser Glu Leu Glu
1               5                   10                  15
Ile Ser Ser Thr Phe Ile Pro Ala Leu Tyr Lys Pro Ala Ala Leu Leu
            20                  25                  30
Pro Ile Ala Arg His Arg Leu Ser Leu Leu Tyr Leu Val Glu Thr Tyr
        35                  40                  45
Pro Val Thr Ile Val Val Gly Gln Thr Gly Ser Gly Lys Thr Thr Gln
    50                  55                  60
Leu Pro Gln Tyr Leu Asp Gln Ala Gly Trp Cys Ala Asp Gly Lys Ala
65                  70                  75                  80
Ile Ala Val Thr Gln Val Leu Phe Tyr Pro Leu His His Asp Pro Gln
                85                  90                  95
His Val Ser Met Cys Asn Cys
            100
```

<210> 37136
<211> 66
<212> PRT
<213> A.fumigatus

<400> 37136

```
His Lys Met Ser Gly His His His His Ser His Asp His Ser Gly His
1               5                   10                  15
Cys His Gly Glu Asp Gly His Asp His Ser Asn Asp Ile Thr Pro Ala
            20                  25                  30
Ile Gln Ser Leu Leu Tyr Ser Gln Ile Ala Phe Asp Asp Ile Thr Thr
        35                  40                  45
Leu Asn Gly Met Pro Thr Val Ala Phe Tyr Met Val Val Arg Glu His
    50                  55                  60
Gly Cys
65
```

<210> 37137
<211> 337

<212> PRT
<213> A.fumigatus

<400> 37137
Ala Thr Arg Cys Ile Val Ser Thr Leu Leu Thr Val Ile Val Gly Gln
1 5 10 15
His Gly Gly Gly Tyr His Gln Ser Asp Ile His Asp Ser Ala Met Ile
20 25 30
Ile Ala Tyr Tyr Lys Phe Cys Tyr Ile Ala Thr Val Leu Tyr Cys Pro
35 40 45
Met Ala Leu Phe Val Lys Ile Ala Leu Leu Ser Ile Ile Ile Arg Ile
50 55 60
Phe Ala Pro Tyr Arg Arg Lys Ile Ile Phe Ile Tyr Val Leu Leu Gly
65 70 75 80
Cys Leu Cys Ile Tyr Tyr Ile Ile Ala Glu Ile Val Lys Ile Arg Met
85 90 95
Cys Asp Pro Ile Pro Ser Tyr Trp Glu Gly Thr Pro Gly Arg Arg Cys
100 105 110
Leu Asp Gln Ser Ala Ala Leu Leu Ala Asp Ser Val Ile Ser Val Val
115 120 125
Ser Asp Leu Ile Ile Leu Leu Leu Pro Leu Pro Leu Thr Trp Ser Leu
130 135 140
Gln Met Ser Arg Asn Lys Lys Leu Arg Val Ile Gly Ile Leu Ser Ala
145 150 155 160
Gly Gly Leu Ala Thr Ala Phe Ser Ile Tyr Arg Leu Ile Leu Val Val
165 170 175
Arg Asp Gly Asn Thr Thr Asp Met Thr Ile Phe Phe Ile Cys Ile Ile
180 185 190
Met Ser Gly Tyr Ala Ala Leu Val Arg Val Ser Val Leu Val Ile Gly
195 200 205
Ser Asp Cys Gly Arg Asn Ala Glu Gly Gly Val Gly Leu Ile Cys Ala
210 215 220
Cys Leu Pro Ser Val Asn Leu Leu Ile Asn Arg Ala Arg Lys Thr Gly
225 230 235 240
Tyr Ser Ser Asn Arg Tyr Ala Glu Gln Glu Ser Ser Val Gln Leu Gly
245 250 255
Pro Val Arg Ser Ala Ala Lys Lys Arg Leu Ser Arg Gly Leu Ser Lys
260 265 270
Ser Asp Thr Tyr Val Asp Pro Thr Glu Phe Gly Asn Asp Gln Ser His
275 280 285
Leu Ile Ser His Ala Gly Ala Val Asp Gly Glu Ser Arg Asp Ala Ala
290 295 300
Leu Gly Ile His Lys Thr Val Asp Val Ser Gln Thr Val Glu Val Leu
305 310 315 320
Asp Gly Asn Arg Arg His Ser Gly Ser Asp Ser Ser His Pro Ser Arg
325 330 335
Tyr

<210> 37138
<211> 319
<212> PRT
<213> A.fumigatus

<400> 37138
His Leu Pro His Ser Asn Val Pro Leu Val Phe Trp Pro Lys Asn Met

```
1               5                   10                  15
Ser Met Ala Glu Val Ala Gly Ala Glu Lys Val Arg Gly Arg Thr Arg
            20                  25                  30
Lys Asn Gly Ala Tyr Ser His Gly Gln Ala Gln Leu Gln Pro Pro Phe
        35                  40                  45
Ser Arg Ser Leu His Asp Ser Arg Lys Gln Glu Thr Gly Gly Asn Gly
    50                  55                  60
Pro Arg Pro Lys Asp Gly Ser Val Thr Glu Thr Thr Asp Arg Ser Pro
65                  70                  75                  80
Asp Val Leu Leu Thr Leu Pro Thr Ile Ser Arg Thr Ala Asn His His
                85                  90                  95
Val Tyr Leu Val Gln Asp Asp Ile Gln Ser Phe Leu His Thr Asp Leu
            100                 105                 110
Asp Leu Ser Arg Val Asn Ile Ile His Asn Leu Leu Trp Met Ala Gly
        115                 120                 125
Arg Pro Met Asn Ala Arg Pro Leu Leu Arg Gln Lys Met Met Gly Phe
    130                 135                 140
Glu Ile Ile Pro Thr Glu Arg Ala Asp Leu His Leu Leu Lys Phe Ser
145                 150                 155                 160
Thr Lys Leu Leu Val Lys Pro Leu Pro Glu Tyr Val Leu Asp Tyr Asp
                165                 170                 175
Phe Trp Thr Arg His Leu Cys Ser Ser Gln Thr Leu His Gly Ser Ala
            180                 185                 190
Thr Gly Leu Leu Leu Ser Tyr Leu Trp Leu Ile Cys Thr Pro Leu Asp
        195                 200                 205
Leu Gln Leu Ala His Asp His Arg Leu Ile Pro His Asp Val Thr Trp
    210                 215                 220
Pro Trp Trp Lys Ala Phe Val Thr Glu Phe Tyr Ala Arg Val Asp Val
225                 230                 235                 240
Asn Ala Leu Asp Thr Val Asn Lys Arg Tyr Gln Phe Gly Glu Leu Arg
                245                 250                 255
Leu Gly Arg Ile Asn Thr Ile Tyr Arg Val Arg Phe Phe Leu Ser His
            260                 265                 270
Phe Ile Arg Gly Tyr Leu Tyr Gly Tyr Asn Arg Tyr Val Val Phe Tyr
        275                 280                 285
Glu Arg Asn Phe Ala Trp Met Leu Met Ile Phe Ala Val Phe Phe Ala
    290                 295                 300
Gly Val Val Arg Asp Ala Gly Gly Gly Gly Cys Ala Ala Val Glu
305                 310                 315

<210> 37139
<211> 107
<212> PRT
<213> A.fumigatus

<400> 37139
Leu Thr Ala Arg Gln Val Asn Thr Ala Met Gln Gln Gln Trp Lys Asp
1               5                   10                  15
Ala Tyr Pro Gly Leu Leu Gly Lys Leu Leu Thr Thr Ala Met Leu Ala
            20                  25                  30
Val Gly Arg Asn Val Glu Gln Gly Ser Phe Ser Ala Leu Tyr Ala Ala
        35                  40                  45
Thr Ser Pro Glu Ile Glu Glu Lys Gly Trp Asn Gly Tyr Tyr Phe Ser
    50                  55                  60
Asp Val Ala Gln Pro Gly Lys Glu Ser Ala Gln Ala Ser Asp Pro Met
65                  70                  75                  80
```

```
Leu Gly Ala Ala Leu Trp Asp Leu Ser His Arg Leu Leu Lys Glu Lys
                85                  90                  95
Val Gly Glu Asp Gly Leu Val Asp Trp Asn Ala
            100                 105

<210> 37140
<211> 237
<212> PRT
<213> A.fumigatus

<400> 37140
Tyr Met Leu Cys Gln Met Leu Thr Ala Lys Gln Leu Ile Leu Ser Ala
1               5                  10                  15
Gly Ile Asn Val Asn Gln Tyr Gly Glu Thr Ala Asp Gly Leu Asp Arg
            20                  25                  30
His Phe Glu Val Asn Phe Leu Gly Gln Phe Tyr Val Val Asn Gln Leu
        35                  40                  45
Trp Pro Leu Leu Arg Lys Thr Ala Lys Met Pro Gly Thr Pro Pro Pro
    50                  55                  60
Arg Val Val Phe Glu Ser Ser Glu Gln His Arg Asn Ala Pro Lys Val
65                  70                  75                  80
Val His Phe Gly Ser Val Asp Glu Ile Asn Asn Pro Glu Ile Gly Thr
                85                  90                  95
Thr Glu Val Tyr Gly Arg Thr Lys Leu Ala Ile Ile Leu Gly Val Arg
            100                 105                 110
Tyr Gly Leu Leu Glu Arg Val Ile Lys Pro Asn Lys Asp Asn Ile Tyr
        115                 120                 125
Val Leu Ser Val His Pro Gly Ala Val Arg Ser Phe Pro Ser Arg Leu
    130                 135                 140
Ser Val Trp Ser Asn Ser Ser Leu Arg Asp Arg Ser Thr Arg Arg Cys
145                 150                 155                 160
Ser Ser Ser Gly Lys Thr Arg Thr Pro Gly Cys Ser Ala Ser Cys Ser
                165                 170                 175
Arg Arg Arg Cys Trp Leu Trp Ala Ala Thr Ser Ser Arg Ala Arg Ser
            180                 185                 190
Val Pro Cys Met Arg Arg Arg Val Pro Arg Leu Lys Arg Arg Gly Gly
        195                 200                 205
Met Gly Thr Thr Leu Ala Met Trp His Ser Arg Gly Arg Ser Arg Arg
    210                 215                 220
Arg Arg Arg Ile Arg Cys Trp Gly Leu Arg Cys Gly Ile
225                 230                 235

<210> 37141
<211> 82
<212> PRT
<213> A.fumigatus

<400> 37141
Glu Val Lys Met Ala Leu Ser Ser Pro Leu Ala Thr Pro Ser Val Arg
1               5                  10                  15
Phe His Cys Pro Met Gln Gly Pro Gln Ala Leu Ala Arg Thr Val Pro
            20                  25                  30
Pro Ala Ser Glu Lys Glu Ala Arg Val Trp Ser Arg Ser Arg Val Ala
        35                  40                  45
Arg Ile Cys Ser Leu Pro Gly Val Met Lys Lys Ser Ala Leu Gly Phe
    50                  55                  60
```

```
Arg Pro Ala Ala Asp Ala Cys Leu Thr Arg Ser Ser Ala Arg Val Met
65                  70                  75                  80
Ser Ser
```

<210> 37142
<211> 62
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (35)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37142

```
Ile Gly Ser Cys Arg Asn Glu Gly Cys Phe Tyr Asp Gly Ile Ile Leu
1               5                  10                  15
Ser Leu Leu Gly Leu Gly Gln Asn His Gly Lys Arg Leu Glu Leu Asn
            20                  25                  30
Pro Ile Xaa Ala Ala Leu Ser Glu Gly Phe Cys Thr Lys His Thr Thr
        35                  40                  45
Ser Ala Leu Gly Thr Ser Ala Ser Pro Thr Ile Ser Ile Asp
    50                  55                  60
```

<210> 37143
<211> 180
<212> PRT
<213> A.fumigatus

<400> 37143

```
Arg Ala Ala Gly Arg Tyr Pro Cys Ala Ala Cys Lys Asp Leu Ser Thr
1               5                  10                  15
Gln Lys Val Val Met Arg Leu Val Thr Asn Arg Arg Gln Thr Leu Leu
            20                  25                  30
Tyr Leu Ile Arg Arg Ser Tyr Ala Tyr Ile Tyr Ala Leu Leu Ile Ser
        35                  40                  45
Ser Glu Pro Val Ser Glu Ala Leu Leu Pro Val Tyr Asn Gln Leu Gln
    50                  55                  60
Thr Leu Arg Arg Cys Leu Leu Glu Val Lys Glu Ser Gly Gly Val Ser
65                  70                  75                  80
Asn Ser Arg Glu Leu Tyr Pro Tyr Ser Met Lys Val Ser Asn Leu Gln
                85                  90                  95
Leu Pro Cys Lys Ala Gln Lys Leu Thr Ser Tyr Ser Ser Thr Pro Leu
            100                 105                 110
Thr Thr Cys Glu Leu Thr Ala Asn Phe Thr Trp Glu Thr Thr Phe Leu
        115                 120                 125
Lys Asp Arg Ala Ala Leu Met Arg Cys Trp Leu Asn Ala Met Ile Leu
    130                 135                 140
Tyr Gly Ser Cys Ala Arg Leu Tyr Leu Thr Thr Glu Arg Glu Lys Ala
145                 150                 155                 160
Leu Asn Ser Leu Leu Val Ile Phe Leu Tyr Leu Val Pro Phe Phe Phe
                165                 170                 175
Val Ser Thr Ala
            180
```

<210> 37144
<211> 330
<212> PRT
<213> A.fumigatus

<400> 37144
Val Pro Arg Thr Arg Cys Arg Asp Ala Gln Leu His Trp Tyr Gly His
1 5 10 15
Leu Leu Gln His Gly Cys Gly Gly Arg Thr His His Leu Gly Leu Pro
20 25 30
Leu Leu Pro Gln Tyr Gly Phe Leu Thr Cys Arg Arg Arg Thr Val Ala
35 40 45
Met Trp Pro Arg Arg Ala Ala Glu Ile Ala Ala Ser Gly Pro Lys Asn
50 55 60
Leu Leu Arg Ala Asp Asp Gly Ala Glu Tyr Asp Gln Leu Ile Thr Ile
65 70 75 80
Asp Leu Ser Thr Leu Glu Pro His Val Asn Gly Pro Phe Thr Pro Asp
85 90 95
Leu Ser Val Arg Leu Ser Asp Phe Ala Asn Thr Val Arg Glu Asn Lys
100 105 110
Trp Pro Glu Thr Leu Gly Ser Gly Leu Ile Gly Ser Cys Thr Asn Ser
115 120 125
Ser Tyr Glu Asp Met Thr Arg Ala Glu Asp Leu Val Lys Gln Ala Ser
130 135 140
Ala Ala Gly Leu Lys Pro Lys Ala Asp Phe Phe Ile Thr Pro Gly Ser
145 150 155 160
Glu Gln Ile Arg Ala Thr Leu Asp Arg Asp Gln Thr Leu Ala Ser Phe
165 170 175
Ser Glu Ala Gly Gly Thr Val Leu Ala Asn Ala Cys Gly Pro Cys Ile
180 185 190
Gly Gln Trp Lys Arg Thr Asp Gly Val Ala Lys Gly Glu Asp Asn Ala
195 200 205
Ile Phe Thr Ser Tyr Asn Arg Asn Phe Pro Gly Arg Asn Asp Gly Asn
210 215 220
Arg Arg Thr Met Asn Phe Leu Ala Ser Pro Glu Ile Val Thr Ala Leu
225 230 235 240
Ala Tyr Ser Gly Ser Thr Thr Phe Asn Pro Met Thr Asp Thr Leu Lys
245 250 255
Thr Pro Ser Gly Glu Glu Phe Lys Phe Arg Pro Pro Gln Gly Ser Asp
260 265 270
Leu Pro Ser Ala Gly Phe Ala Asp Gly Asn Pro Ala Leu Gln Pro Ser
275 280 285
Ala Gly Val Pro Asp Ala Ser Val Glu Val Ile Val Ser Pro Thr Ser
290 295 300
Glu Arg Leu Ala Leu Leu Glu Pro Phe Ala Pro Phe Pro Glu Gly Glu
305 310 315 320
Leu Ser Gly Leu Lys Val Leu Tyr Lys Val
325 330

<210> 37145
<211> 105
<212> PRT
<213> A.fumigatus

<400> 37145
Leu Gly Ala Tyr Phe Ser Arg Ile Pro Thr Thr Lys Arg Pro Ser Tyr

```
1               5                   10                  15
Ile Gly Ser Thr Phe Pro Ser Tyr Phe Leu Ser Ala Ile Gly Ile Met
            20                  25                  30
Asp Ser Pro Ala Ala Pro Val Pro Phe Asp Pro Gln Glu Gln Pro Ile
        35                  40                  45
Leu Glu Arg Leu Leu Arg Thr Arg Asp Ala Leu Leu Leu Leu Lys Gln
    50                  55                  60
Asp Lys Ser Ser Tyr Ile Lys Ser Arg Asp Val Leu Pro Leu Tyr Glu
65                  70                  75                  80
Glu Val Ile Ser Glu Val Glu Lys Leu Asn Ala Val Arg Lys Glu Gln
                85                  90                  95
Asp Arg Arg Leu Thr His Asn Arg Arg
            100                 105
```

<210> 37146
<211> 67
<212> PRT
<213> A.fumigatus

<400> 37146

```
Phe Ser Ala Gly Asp Ile Pro Val Ser Cys Pro Leu Leu Phe Cys Ile
1               5                   10                  15
Asn Gly Leu Lys Tyr Gly Gly Ser Leu Phe Phe Glu Val Cys Asp Phe
            20                  25                  30
Ser Pro Asp Phe Ser Ser Gly Val Cys Leu Gly Ala Phe Trp Asp Ala
        35                  40                  45
Met Thr Pro Phe Asn Arg Asn Glu Leu Ser Pro Leu Cys Lys Leu Asp
    50                  55                  60
Gln Gly Ser
65
```

<210> 37147
<211> 380
<212> PRT
<213> A.fumigatus

<400> 37147

```
Leu Ala Pro Lys Cys Leu Ser Pro Gln Gln Leu Phe Ala Arg Arg Gly
1               5                   10                  15
Leu Ala Thr Glu Ala Ser Ala Ala Arg Met Pro Pro Tyr Pro Lys Ile
            20                  25                  30
Val Arg Asn Leu Glu Gln Val Arg Lys Val Leu Gly Ser Ser Arg Ala
        35                  40                  45
Leu Thr Leu Ala Glu Lys Ile Leu Tyr Ala His Leu Asp Asn Ala Glu
    50                  55                  60
Glu Ser Leu Leu Thr Gly Thr Asn Asn Gly Lys Asp Ile Arg Gly Lys
65                  70                  75                  80
Ala Asn Leu Lys Leu Lys Pro Asp Arg Val Ala Met Gln Asp Ala Ser
                85                  90                  95
Ala Gln Met Ala Leu Leu Gln Phe Met Ser Cys Gly Leu Pro Ser Thr
            100                 105                 110
Ala Val Pro Ala Ser Ile His Cys Asp His Met Ile Val Gly Glu Arg
        115                 120                 125
Gly Ala Asp Thr Asp Leu Pro Ala Ser Ile Glu Gly Asn Arg Glu Val
    130                 135                 140
Phe Asp Phe Leu Glu Ser Ala Ala Lys Arg Tyr Gly Ile Glu Phe Trp
```

```
145                 150                 155                 160
Pro Pro Gly Ala Gly Ile Ile His Gln Ser Val Leu Glu Asn Tyr Ala
                165                 170                 175
Ala Pro Gly Leu Met Met Leu Gly Thr Asp Ser His Thr Pro Asn Ala
            180                 185                 190
Gly Gly Leu Gly Ala Ile Ala Ile Gly Val Gly Gly Ala Asp Ala Val
        195                 200                 205
Asp Ala Leu Val Asp Ala Pro Trp Glu Leu Lys Ala Pro Arg Ile Leu
    210                 215                 220
Gly Val Arg Leu Glu Gly Arg Leu Ser Gly Trp Ala Ser Pro Lys Asp
225                 230                 235                 240
Ile Ile Leu His Leu Ala Gly Lys Leu Thr Val Arg Gly Gly Thr Gly
                245                 250                 255
Tyr Val Ile Glu Tyr His Gly Pro Gly Val Glu Thr Leu Ser Cys Thr
            260                 265                 270
Gly Met Ala Thr Cys Cys Asn Met Gly Ala Glu Val Glu Pro Thr Thr
        275                 280                 285
Ser Val Phe Pro Phe Ser Pro Ser Met Gly Ser Leu Pro Ala Gly Asp
    290                 295                 300
Ala Pro Trp Pro Cys Gly Pro Gly Gly Arg Pro Arg Ser Pro His Leu
305                 310                 315                 320
Ala Leu Arg Thr Phe Cys Gly Pro Thr Met Glu Gln Ser Thr Thr Ser
                325                 330                 335
Ser Ser Gln Leu Thr Cys Gln Arg Trp Asn Leu Thr Ser Thr Gly Pro
            340                 345                 350
Ser Leu Arg Ile Cys Arg Cys Val Tyr Leu Thr Leu Pro Thr Pro Ser
        355                 360                 365
Ala Arg Thr Ser Gly Pro Arg Leu Trp Val Leu Asp
    370                 375                 380

<210> 37148
<211> 92
<212> PRT
<213> A.fumigatus

<400> 37148
Gln Asn Thr Leu Val Thr Gly Ile Ala Tyr Gln Leu Val Pro Asp Asp
1               5                   10                  15
Pro Leu Ile Asn Thr Glu Gln Cys Thr Arg Asp Val Lys Leu Met Ala
            20                  25                  30
Glu Leu Gly Ala Asn Ala Ile Arg Val Tyr His Val Asp Pro His Ala
        35                  40                  45
Asn His Asp Gly Cys Met Lys Val Leu Ala Asp Ala Gly Ile Tyr Leu
    50                  55                  60
Phe Val Asp Leu Asp Thr Phe Asp Thr Gln Ile Glu Gln Val Ser Ser
65                  70                  75                  80
His Cys Arg Ile His Ile Leu Pro Pro Ala Gly Pro
                85                  90

<210> 37149
<211> 342
<212> PRT
<213> A.fumigatus

<400> 37149
Thr Asp Pro His Trp Asn Glu Thr Gln Tyr Asp Arg Phe Lys Gln Val
```

```
1               5                   10                  15
Leu Asp Glu Phe Gln Lys Tyr Glu Asn Thr Ala Gly Val Phe Val Gly
            20                  25                  30
Asn Glu Val Leu Thr Thr Lys Glu Gly Ser Ala Ala Ala Pro Tyr Val
        35                  40                  45
Leu Ala Ala Ala Arg Asp Ile Lys Ala Tyr Arg Asp Ala Gln Asn Tyr
    50                  55                  60
Arg Asn Ile Pro Val Gly Tyr Ser Ala Ala Asp Ile Ala Glu Leu Arg
65                  70                  75                  80
Pro Met Leu Gln Asn Phe Leu Ala Cys Ala Lys Asn Pro Ser Asp Arg
                85                  90                  95
Leu Asp Phe Phe Ala Leu Asn Ala Tyr Glu Trp Cys Gly Asp Ser Gly
            100                 105                 110
Tyr Val Gln Ser Gly Tyr Arg Glu Leu Gln Arg Asn Ala Ser Gly Tyr
        115                 120                 125
Pro Ile Pro Ile Phe Phe Ser Glu Thr Gly Cys Asn Ala Ala Arg Pro
    130                 135                 140
Arg Thr Phe Asp Asp Gln Ala Ala Ile Phe Gly Glu His Met Ser Asp
145                 150                 155                 160
Thr Trp Ser Gly Ser Met Val Tyr Glu Trp Ile Gln Glu Val Asn Asp
                165                 170                 175
Tyr Gly Leu Val Ser Tyr Gly Pro Pro Ala Pro Asn Ala Pro Pro Thr
            180                 185                 190
Asp Thr Leu Val Tyr Asp Gly Phe Thr Arg Lys Gly Val Pro Thr Pro
        195                 200                 205
Val Ser Pro Asp Phe His Asn Leu Lys Thr Gln Trp Ala Thr Leu Ser
    210                 215                 220
Pro Thr Gly Val Ala Leu Ser Asp Tyr Val Gln Ser Thr Ser Thr Ile
225                 230                 235                 240
Ser Pro Pro Glu Cys Pro Ala Tyr Thr Ser Gly Ala Trp Glu Val Asp
                245                 250                 255
Pro Ser Ser Pro Leu Pro Thr Leu Gly Gln Thr Gln Thr Asn Ser Gly
            260                 265                 270
Pro Thr Tyr Gln Val Thr Asn Val Ser Gly Ser Gly Asn Leu Pro Val
        275                 280                 285
Leu Ser Ala Thr Ala Thr Arg Ser Thr Ser Ser Thr Pro Thr Gln Val
    290                 295                 300
Leu His Ser Gly Ala Ala Ser Pro Leu Ser Leu Pro Arg Ile Val Gly
305                 310                 315                 320
Ser Lys Tyr Ile Ala Ser Ala Ser Val Ser Val Gly Phe Val Ile Gly
                325                 330                 335
Met Val Ala Val Phe Leu
            340
```

<210> 37150
<211> 365
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (122)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37150
Glu Asn Asn Pro Val Leu Asp His Gly Ser Lys Gln Val Pro Leu Pro

```
1               5                   10                  15
Pro Gly Tyr Gln Ala Ile Pro Arg Pro Arg Lys Gly Ser Cys Pro Trp
            20                  25                  30
Leu Cys Gly Asp Ser Arg Pro Trp Val Leu His Val Pro His Leu Lys
        35                  40                  45
Glu Trp Thr Gln Ala Ser Asn Phe Asn Gln Ser Gly Leu Gln Gly Thr
    50                  55                  60
Gln Phe Glu Cys Pro Asn Leu Val Lys Phe Ser Val Asp Asp Cys Asp
65                  70                  75                  80
Asp Ser Glu Asp Pro Thr Lys Trp Val Leu Phe Ile Ser Val Asn Pro
                85                  90                  95
Glu Ala Pro Leu Gly Gly Ser Gly Thr Tyr Tyr Val Val Gly Ser Phe
            100                 105                 110
Asn Gly Thr His Phe Thr Ser Glu Ser Xaa Arg Glu Thr Leu Tyr Asp
        115                 120                 125
Phe Ala Lys Asp Asn Tyr Ala Ser Gln Trp Tyr Ser Gly Ile Pro Glu
    130                 135                 140
Asp Glu Pro Pro Val Ser Ile Gly Trp Ala Ser Asn Trp Asn Tyr Thr
145                 150                 155                 160
Gln Gln Val Pro Thr Gly Pro Leu Glu Gly Trp Arg Ser Ser Met Ser
                165                 170                 175
Leu Pro Lys Val His Thr Leu Thr Lys Val Asp Gly Ser Trp Val Val
            180                 185                 190
Thr Lys Glu Pro Phe Asp Gly Leu Asp Ser Val Arg Gly Lys Gln Leu
        195                 200                 205
Lys Gly Lys Arg Ser Arg Asn Gly Asp Val Thr Phe Asp Phe Lys Asn
    210                 215                 220
Val Lys Ser Asn Ala Val Ala Phe Asp Val Lys Ile Asn Gly Ile Pro
225                 230                 235                 240
Ser Ser Gly Ala Thr Gly Gln Val Tyr Phe Asn Phe Thr Ser Ser Thr
                245                 250                 255
Ser Gly Glu Tyr Val Asp Gly Gly Leu Arg Leu Asp Asn Gly Phe Phe
            260                 265                 270
Trp Ile Asn Arg Ala Gly Thr His Leu Phe Thr Gln Ala Asn Ser Thr
        275                 280                 285
Gly Tyr Trp Pro Val Phe Asn Thr Thr Val Lys Ser Tyr Asp His His
    290                 295                 300
Lys Phe Thr Phe Ser Gly Val Ile Asp Arg Ser Leu Leu Glu Val Thr
305                 310                 315                 320
Leu Ala Glu Gly Val Gln Thr Gly Thr Met Ser Phe Tyr Pro Thr His
                325                 330                 335
Pro Leu Asp Thr Leu Thr Val Ser Gly Ser Asp Leu Ser Lys Lys Thr
            340                 345                 350
Ser Phe Arg Ala Lys Ala Trp Gly Leu Glu Ser Gly Trp
        355                 360                 365
```

<210> 37151
<211> 77
<212> PRT
<213> A.fumigatus

<400> 37151

```
Pro Ala Asn Pro Cys Asp Cys Ser Gly Ala Pro Lys Asp Glu Ser Thr
1               5                   10                  15
Ile Val Ser Arg Ile Val Ser Ala Glu Tyr Trp Gln Arg Gln Cys His
            20                  25                  30
```

```
Ala Tyr Phe Pro Glu Val Asn Gly Tyr Thr Phe Gly Ser Ala Asn Gly
        35                  40                  45
Lys Thr Ala Glu Asp Val Asn Lys Trp Thr Lys Gly Trp Asp Leu Thr
    50                  55                  60
Asn Thr Thr Arg Leu Ile Trp Ala Asn Gly Phe Val Val
65                  70                  75
```

<210> 37152
<211> 186
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (126)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37152

```
Pro Pro Ser Lys Lys Thr Thr Arg Phe Ser Thr Met Gly Pro Asn Lys
1               5                   10                  15
Phe Arg Tyr Pro Gln Gly Thr Arg Gln Ser Gln Asp Gln Glu Arg Val
            20                  25                  30
His Ala His Gly Tyr Ala Glu Ile Arg Gly Leu Gly Phe Tyr Thr Ser
        35                  40                  45
Pro Ile Ser Arg Asn Gly Arg Arg Pro Pro Thr Ser Thr Ser Gln Val
    50                  55                  60
Cys Lys Glu Arg Asn Ser Asn Ala Pro Thr Ser Ser Ser Phe Gln Ser
65                  70                  75                  80
Thr Thr Ala Thr Thr Gln Arg Thr Pro Pro Ser Gly Cys Ser Ser Phe
                85                  90                  95
Pro Ser Thr Leu Lys Arg His Ser Gly Ala Arg Glu Pro Thr Met Ser
            100                 105                 110
Leu Glu Ala Ser Met Glu Pro Ile Ser Leu Arg Lys Ala Xaa Ala Arg
        115                 120                 125
Pro Ser Met Thr Ser Pro Arg Thr Thr Thr Pro Leu Ser Gly Thr Leu
    130                 135                 140
Ala Ser Pro Arg Thr Ser Pro Arg Ser Pro Ser Ala Gly Pro Ala Thr
145                 150                 155                 160
Gly Thr Thr Pro Ser Arg Cys Pro Pro Ala Pro Ser Lys Ala Gly Glu
                165                 170                 175
Ala Pro Cys Arg Cys Pro Lys Cys Thr Pro
            180                 185
```

<210> 37153
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37153

```
Pro Val Gly Leu Gly His Ala Gly Gln Tyr Gly Leu Arg Lys Leu Glu
1               5                   10                  15
Gln Gly Leu Asn Leu Asp Thr Val Glu Lys Ser Ile Pro Leu Ser Gln
            20                  25                  30
Ile Leu Gln Asp Glu Lys Gly Leu Val Lys Val Tyr Ser Tyr Ile Asn
        35                  40                  45
Pro Ser Arg Thr Trp Leu Phe Thr Thr Leu Asn Glu Asn
```

50 55 60

<210> 37154
<211> 73
<212> PRT
<213> A.fumigatus

<400> 37154
Trp Gln Tyr Phe Val Pro Val Val Glu Gly Met Pro Lys Asn Cys Ser
1 5 10 15
Lys Asp Leu Asn Arg Val Val Glu Tyr Ile Asp His Val Tyr Glu Ser
20 25 30
Gly Asp Ile Glu Arg Gln Gln Glu Ile Lys Glu Met Phe Gly Leu Gly
35 40 45
Ala Leu Lys His Phe Asp Asp Phe Ala Ala Tyr Val Ala Phe Ala Phe
50 55 60
Phe Glu Arg Arg Ile Met Pro Trp Tyr
65 70

<210> 37155
<211> 499
<212> PRT
<213> A.fumigatus

<400> 37155
Arg His Arg Ser Ile Arg Thr Leu Tyr Asn Cys Ala Cys Tyr Ala Val
1 5 10 15
Lys Pro Ala Ala Met Ser Glu Ser Pro Lys Ser Glu Lys Tyr Met Cys
20 25 30
Leu Thr Arg Phe Ser Thr Pro Val Pro Glu Leu Asp Asp His Arg Phe
35 40 45
Gln Leu Asp Ser Pro Pro Arg Ile Glu Ala Thr Ala Asp Ile Ser Leu
50 55 60
Ser Arg Gln Asn Thr Ala Gln His Ala Tyr His Gln Glu Thr Pro Gln
65 70 75 80
Arg Pro Asp Leu Leu Ser Ile Gln Asp Ala Leu Arg Glu Ala Gly Ser
85 90 95
Leu Ser Arg Asp Phe Glu Gln Ala Ile Leu Asp Asp Asp Arg Ser Gly
100 105 110
Lys Asp Ile Asn Thr Leu Gly Arg Arg Phe Ser Val Asp Pro Asn Gly
115 120 125
Asn Val Arg His Gly Arg Thr Trp Ser Arg Thr His Gln Glu Leu Ala
130 135 140
Asn Met Ser Arg Glu Ser Ser Pro Ser Ala Arg Ser Ser Ser Pro Pro
145 150 155 160
Asn Ser Val Glu Ala Phe Ala Asp Pro Arg Arg Arg Glu Arg Ala Asn
165 170 175
Thr Leu Glu Ser His Ala Ala Pro Asp Leu Glu Ala Ile Leu Gln Arg
180 185 190
Thr Val Ser Gly Gly Thr His Pro Arg Arg Pro Thr Phe Ser Asn Ala
195 200 205
Ser Ala Ile Arg Pro Gln Pro Gly Asp Ile Gln Leu Glu Pro Asn Asp
210 215 220
Glu Ser Cys Val Pro Thr Tyr Glu Gln Pro Gly Arg Ile Pro Val Ile
225 230 235 240
Asp Tyr Glu Glu Leu Glu Glu Phe Val Ala Leu Ser Arg Gln Met Lys

```
                245                 250                 255
Pro Ser Thr Ser Arg Arg Lys Gln Ser Leu Ser Ser Gln Ser Arg Gly
            260                 265                 270
Pro Arg Val Phe Tyr Asp Leu Arg Pro Gly Leu Arg Lys Ser Asp Val
        275                 280                 285
Glu Gly Glu Lys Arg Ser Ser Ser Ala Asp Arg Ser Ser Ser Asp Leu
    290                 295                 300
Met Asp Ala Asp Leu Lys Thr Ala Asp Lys Val Tyr Ala Asn Val Val
305                 310                 315                 320
Asp Glu Lys Asp Ile Val Glu Lys Leu Gln Asn Glu Asn Glu Pro Thr
                325                 330                 335
Arg Phe Gly Phe Phe Ser Ser Glu Ser Gln Ser Thr Val His Ala Ala
            340                 345                 350
Glu Met Gly Asp Leu Val Leu Pro Gly Asp Thr Phe Arg Asp Leu Phe
        355                 360                 365
Gln Leu Gly Pro Glu Gly Ser Val Trp Trp Leu Asp Val Leu Asn Pro
    370                 375                 380
Thr Glu Glu Glu Val Ala Ala Leu Ser Arg Ala Phe Ser Ile His Pro
385                 390                 395                 400
Leu Thr Thr Glu Asp Ile Leu Thr Gln Glu Thr Arg Glu Lys Val Glu
                405                 410                 415
Leu Phe Lys Gln Tyr Tyr Phe Val Cys Phe Arg Thr Phe Tyr Gln Leu
            420                 425                 430
Asp Lys Thr Asp Glu Arg Phe Met Glu Pro Val Asn Phe Tyr Met Val
        435                 440                 445
Val Phe Arg Asp Gly Val Leu Ser Phe Ser Phe Thr Glu Lys Ser His
    450                 455                 460
Ala Ala Asn Val Arg Lys Lys Met Gly Lys Leu Pro Asp Tyr Val Ser
465                 470                 475                 480
Leu Asn Asn Asp Trp Ile Cys Tyr Ala Met Asn Val Ser His Lys Gly
                485                 490                 495
Leu Asp Phe
```

<210> 37156
<211> 201
<212> PRT
<213> A.fumigatus

<400> 37156

```
Lys Ser His Phe Ser Pro Gly Gly Tyr Ile Tyr Asn Cys Cys Ser Val
1               5                   10                  15
Ser Arg Asp Thr Ser Gln Ser Val His Phe Ile Arg Leu Leu Pro Phe
            20                  25                  30
Gln Ala Pro Asp Phe Leu Ser Cys Leu Ser Asn Gln Thr Val Asp Leu
        35                  40                  45
Ala Ile Phe Asp Val Pro Asp Thr Ala Met Ser Val Ser Ser Phe Ile
    50                  55                  60
Ile Arg Thr Pro Cys Ser Ser Ala Asn Ile Gly Pro Gly Phe Asp Val
65                  70                  75                  80
Ile Gly Leu Ala Leu Ser Leu His Leu Glu Leu His Val Thr Ile Asp
                85                  90                  95
Ser Ser Lys Ser Ser Ser Glu His Pro Leu Asn Cys Val Ile Thr Tyr
            100                 105                 110
Glu Asp Gln Ser Lys Ser Thr Glu Lys Ile Ser Leu Asp Pro Glu Val
        115                 120                 125
```

```
Asn Leu Ile Thr Arg Val Ala Leu Tyr Val Leu Arg Cys His Asp Gln
    130                 135                 140
Arg Ala Phe Pro Val Glu Thr Arg Val His Ile Val Asn Pro Ile Pro
145                 150                 155                 160
Leu Gly Arg Gly Leu Gly Ser Ser Gly Thr Ala Val Val Ala Gly Val
                165                 170                 175
Met Leu Gly Asn Glu Val Gly Arg Leu Gly Leu Ser Lys Asp Arg Leu
            180                 185                 190
Leu Asp Tyr Cys Leu Met Ile Gly Arg
        195                 200
```

<210> 37157
<211> 144
<212> PRT
<213> A.fumigatus

<400> 37157

```
Ile Trp Leu Glu Phe His Ile Lys His Ile Met Phe Gly Leu Pro Thr
1               5                   10                  15
Asp Asn Tyr Leu Tyr Ser Leu Glu Arg His Pro Asp Asn Val Ala Ala
            20                  25                  30
Ser Leu Phe Gly Gly Phe Val Gly Thr Tyr Leu Asn Glu Leu Lys Pro
        35                  40                  45
Glu Asp Val Ala Arg Lys Glu Ile Pro Leu Ser Glu Val Leu Pro Ala
    50                  55                  60
Pro Ala Gly Gly Ile Asp Thr Gly Arg Arg Pro Pro Glu Pro Pro Leu
65                  70                  75                  80
Gly Ile Gly His Tyr Arg Lys Phe Gln Trp Ala Lys Glu Ile Lys Ala
                85                  90                  95
Ile Ala Ile Ile Pro Asp Phe Val Val Pro Thr Ala Asn Ala Arg Asn
            100                 105                 110
Val Leu Pro Thr Thr Tyr Thr Arg Ala Asp Val Val Ser Pro Thr His
        115                 120                 125
Leu Asn His Pro His His Glu Pro Phe Ala Met Arg Phe Ser Leu Val
    130                 135                 140
```

<210> 37158
<211> 97
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (34),(58),(85)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37158

```
Val Phe Asn Leu Gln Arg Ala Ala Leu Leu Pro Ala Thr Leu Gly Asn
1               5                   10                  15
Ser Pro Pro Glu Pro Asp Met Ile Tyr Leu Ala Met Gln Asp Lys Val
            20                  25                  30
His Xaa Pro Ile Pro Glu Asp Thr Tyr Pro Arg Leu Glu Arg Glu Ser
        35                  40                  45
Phe Asn Pro Met Asn Pro Ser Thr Gln Xaa Gly Ala Asn Leu Gly Ile
    50                  55                  60
Cys Ser Ile Pro Gly Gln Glu Pro Thr Ile Phe Gly Ser Asn Pro Met
```

65 70 75 80
Asn Arg Phe Glu Xaa Asn Pro Arg Thr Pro Ser Leu Phe Ser Ile Trp
85 90 95
Ala

<210> 37159
<211> 266
<212> PRT
<213> A.fumigatus

<400> 37159
Pro Ala Trp Glu Cys Leu Gln Leu Pro His Leu Ile Cys Ala Ile Ala
1 5 10 15
Ser Phe Ser Val Glu Asn Phe Ala Ser Leu Gln Pro Trp Ile Ala Leu
20 25 30
Thr Arg Cys Leu Lys Ile Gln Gly Lys Ser Leu Ala Leu Pro Tyr Ala
35 40 45
Arg Ala Val His Glu Met Val Pro Thr Thr Pro Leu Arg Asn Asp Leu
50 55 60
Asn Ile Arg Pro His Glu Ser Ile Asn Asp Leu Pro Val His Arg Leu
65 70 75 80
Thr Asp Pro Gln Ile Phe Tyr Pro Val Ser Glu Ser Arg Gln Phe Thr
85 90 95
Arg Val Asp Ala Gly Arg Val Phe Ser Ala Ala Pro Ala Leu Pro His
100 105 110
Lys Glu Ala Glu Arg Ala Val Ala His Pro Asp Glu Ala Ile Ser Lys
115 120 125
Ile Thr Gln Asp Pro Ala Arg Ile Glu Arg Val Gly Lys Gly Asp Asp
130 135 140
Glu Gln Gln Val Leu Gln Pro Ala Asp Val Arg Ile Pro His Pro His
145 150 155 160
Leu Val Ser His Glu Arg Gln Val Lys Ser Asn Pro Asn Glu Phe Arg
165 170 175
Glu Asn Met Lys Leu Tyr Arg Glu Arg Leu Gln Gln Glu Glu Ala Ile
180 185 190
Glu Gln Glu Arg Lys Arg Leu Ala Lys Glu Arg Ala Glu Gln Arg Leu
195 200 205
Val Arg Val Gln Pro Glu Gly Ser Arg Phe Glu Phe Arg Ile Lys Asp
210 215 220
Val Val Val Ser Arg Glu Thr Thr Gly Thr Asp Gly Arg Gly Ala Gln
225 230 235 240
Ala Pro Gly Arg Arg Tyr Gly Val Pro Thr Tyr Asp Arg Lys Lys Gly
245 250 255
Gln Ile Lys Ile Pro Thr Arg Val Glu Val
260 265

<210> 37160
<211> 139
<212> PRT
<213> A.fumigatus

<400> 37160
Arg Gln Leu Lys Gln His Thr Pro Gly Arg Thr Asn Tyr Ile Thr Arg
1 5 10 15
Leu Lys Gly Asn Ala Gly Asn Arg Pro Phe Pro Leu Asn Pro Asn Phe

```
            20                  25                  30
Val Ser Glu Pro Ile Leu Ser Glu Glu Leu Arg Asn Glu Ile His Arg
        35                  40                  45
Arg Val Val Asp Lys Lys Gln Ser Val Arg Ala Val Ser Val Asp Leu
    50                  55                  60
Gly Val Asp Met Arg Arg Val Ala Ala Val Val Arg Leu Val Glu Leu
65                  70                  75                  80
Glu Lys Arg Trp Lys Gln Gln Val Cys Met Phe Ser Phe Leu Ser Ala
                85                  90                  95
Leu Phe Gln Ile Cys Arg Leu Phe Pro Val Leu Arg Trp His Cys Thr
            100                 105                 110
Met Met Arg Thr Thr Lys Ile Ser Ile Ser Leu Tyr Glu Pro Glu Leu
        115                 120                 125
Asn Leu Leu Gly Asn Ala Tyr Asn Ser His Ile
    130                 135
```

<210> 37161
<211> 249
<212> PRT
<213> A.fumigatus

<400> 37161

```
Glu Asn Ile Gly Phe Thr Gly Ile Lys Ile Arg Ile Cys Leu Glu Glu
1               5                   10                  15
Val Pro Thr Asp Gln Phe Thr Pro Glu Arg Ile Leu Ser Pro Glu Glu
            20                  25                  30
Pro Leu Gly Val Val Leu Asp Thr Tyr Phe Pro Gly Gly Gln Thr Val
        35                  40                  45
Asp Glu Ala Leu Val Ile Asp Ile Pro Gln Arg Arg Thr Pro Lys Pro
    50                  55                  60
Ser Pro Arg His Pro Val Tyr Tyr His His Ser Glu Pro Gly Glu His
65                  70                  75                  80
Gly Glu Tyr Phe Pro Leu Met Pro Ala Asn Pro Asn Ala Pro Thr Pro
                85                  90                  95
Pro Thr His Leu Ser Ala Ser Ser Thr Ser Val Asn Ala His His Thr
            100                 105                 110
Gly Pro Ser Ile Ser Ile Leu Thr Thr Gly Met Ala Pro Pro Leu Pro
        115                 120                 125
Ser Pro Gly Asn Arg Ala Asn Arg His Ser Arg Arg Pro Pro Leu Thr
    130                 135                 140
Arg His Thr Thr Asn Ser Pro Thr Met Leu Gly Thr Ala Pro Asn Pro
145                 150                 155                 160
Lys Gly Met Arg Gly Leu Ser Leu Leu Phe Phe Val Pro Leu Arg Ala
                165                 170                 175
His Ser Leu Leu Thr Arg Cys Arg Leu Glu Tyr Gly Leu Val Ser Ser
            180                 185                 190
Ala Ser Arg Ser Ser Ala Pro Gly Pro Tyr Ala Thr Trp Ser Ser Ser
        195                 200                 205
Arg Val Ala Pro Asp Gln Asp Ala His Ala Ala Ser Ala Cys Cys Leu
    210                 215                 220
Ala Ala Pro Ser Ser His Glu Thr Glu Glu Gly Arg Gln Arg Pro Ile
225                 230                 235                 240
Ala Lys Arg Cys Leu Trp Trp Pro Tyr
                245
```

<210> 37162

<211> 238
<212> PRT
<213> A.fumigatus

<400> 37162

```
Leu Asp Val Asp Ser Asn Met Ala Ser Cys Pro Gln Pro Pro Val Ala
1               5                  10                  15
Ala Pro Gln Val Pro Thr Pro Pro Gly Pro Pro Pro Glu Ser Pro Gln
            20                  25                  30
Thr Lys Thr His Thr Pro Pro Ala Arg Val Ala Ser Pro Arg Pro Arg
        35                  40                  45
Pro Thr Lys Pro Lys Lys Ala Gly Asn Gly Gln Ser Pro Asn Ala Ala
    50                  55                  60
Phe Gly Gly Leu Ile Glu Gly Thr Val Pro Pro Ile Asn Val Leu Ile
65                  70                  75                  80
Val Glu Asp Asn Ile Ile Asn Gln Lys Leu Leu Glu Ala Phe Met Lys
                85                  90                  95
Arg Leu Ser Val Arg Trp Lys Cys Ala Ala Asn Gly Glu Glu Ala Val
            100                 105                 110
Arg Lys Trp Arg Glu Gly Gly Phe His Leu Val Leu Met Asp Ile Gln
        115                 120                 125
Leu Pro Val Met Asn Gly Leu Asp Ala Thr Lys Glu Ile Arg Arg Leu
    130                 135                 140
Glu Arg Leu Asn Gly Ile Gly Val Phe Thr Lys Thr Ala Ser Gly Arg
145                 150                 155                 160
Ser Ser Ala Ser Ser Leu Ser Pro Glu Val Asn Gln Ala Ser Ser Glu
                165                 170                 175
Val Ser Leu Ser Glu Glu Asp Thr Leu His Asp Leu Ser Leu Phe Lys
            180                 185                 190
Ser Pro Val Ile Ile Val Ala Leu Thr Ala Ser Ser Leu Gln Ser Asp
        195                 200                 205
Arg His Glu Ala Leu Ala Ala Gly Cys Asn Asp Phe Leu Thr Lys Val
    210                 215                 220
Cys His Ser Asp Ala Thr Cys Ile Leu Val Arg Val Asp Gly
225                 230                 235
```

<210> 37163
<211> 146
<212> PRT
<213> A.fumigatus

<400> 37163

```
Pro Val Gly Phe Pro Trp Leu Glu Gln Lys Val Thr Glu Trp Gly Cys
1               5                  10                  15
Met Gln Ala Leu Ile Asp Phe Glu Gly Trp Arg Lys Trp Arg Gly Phe
            20                  25                  30
Ala Asp Glu Pro Gln Ser Ser Ser Pro Thr Asp Gly Gly Phe Thr Ser
        35                  40                  45
Pro Leu Gln Ala Gly Ala Asn Gly Val Ser Ser Lys Thr Ser Thr Ser
    50                  55                  60
Pro Ser Ser Ala Ala Val Asn Ala Thr Ala Arg Ala Phe Ala Thr Gly
65                  70                  75                  80
Pro Gly Ala Gly Lys Arg Lys Ser Thr Val Pro Glu Leu Thr Lys Pro
                85                  90                  95
Val Asp Ile Leu Pro Glu Glu Pro Pro Gly Ser Gly Ser Gly Glu Gly
            100                 105                 110
```

```
Asn Glu Thr Leu Asn Ser Pro Ala Ser Pro Leu Thr Ser Val His Val
        115                 120                 125
Gly Asp Pro Thr Glu Pro Pro Gly Asp Glu Glu Gln Gln Ala Leu Asp
    130                 135                 140
Ala Thr
145
```

<210> 37164
<211> 126
<212> PRT
<213> A.fumigatus

<400> 37164

```
His Pro Met Glu Met His Thr Phe Leu Phe Ser Pro Glu Lys Val Phe
1               5                   10                  15
Ile Lys Ala Leu Gly Tyr Ser Glu Asp Ala Leu Ser Arg Pro Ile Ile
            20                  25                  30
Gly Ile Ile Asn Thr Phe Ser Gly Phe Asn Pro Cys His Ala Asn Val
        35                  40                  45
Pro Gln Leu Ile Glu Ala Ala Lys Arg Gly Ile Gln Leu Asn Gly Gly
    50                  55                  60
Leu Ala Ile Glu Phe His Thr Ile Ser Ile His Glu Ser Phe Tyr His
65                  70                  75                  80
Pro Thr Ser Met Phe Leu Arg Asn Leu Met Ser Met Asp Thr Glu Glu
                85                  90                  95
Met Ile Arg Ala Gln Pro Leu Asp Ala Cys Ile Met Ile Gly Gly Pro
            100                 105                 110
Phe Ile Arg Phe Pro Ile Leu Ala Lys Pro Ala Pro Gln Thr
        115                 120                 125
```

<210> 37165
<211> 192
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (178),(179),(180)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37165

```
Ser Tyr Arg Lys Ala Leu Phe Val Arg Lys Leu Thr Ala Ser Ser Glu
1               5                   10                  15
Leu Thr Val Lys Ile Val Asn Ile Glu Asp Met Thr Lys Val Lys Tyr
            20                  25                  30
Leu Arg Glu Gln Ala Lys Gly Thr Lys His Val Ser Phe Asp Pro Asn
        35                  40                  45
Gly Arg Tyr Ile Ala Val Ser Cys Thr Asp Gly Leu Leu Tyr Ile Tyr
    50                  55                  60
Ser Thr Phe Leu Glu Glu Pro Glu Leu Val Arg Lys Leu Asp Gly Val
65                  70                  75                  80
Ile Arg Arg Leu Glu Ala Glu Asp Glu Ala Thr Ala Lys Ile Ala Trp
                85                  90                  95
His Pro Asp Gly Thr Ala Phe Ala Ala Ala Glu Val Thr Arg Asp Ile
            100                 105                 110
Gly Ile Tyr Thr Val Ser Glu Trp Lys Lys Glu Lys Val Phe Ser Gly
```

```
        115                 120                 125
Gly His Asn Gly Asp Ile Thr Ser Val Ser Trp Ser Pro Asn Gly Ala
    130                 135                 140
Leu Leu Ala Thr Ala Gly Ala Asp Gly Lys Ile Leu Ile Trp Glu Thr
145                 150                 155                 160
Lys Thr Gln Gln Val Leu His Arg Tyr Asp Phe Ser Tyr Val Gly Arg
                165                 170                 175
Pro Xaa Xaa Xaa Ser Glu Gln Gly Gly Ala Glu Ile Met Pro Trp Gly
            180                 185                 190
```

<210> 37166
<211> 264
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (31),(32),(46),(61)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37166

```
Cys Trp Gly Tyr Ala Gly Ala Thr Ala His Ser Ser Ser Pro Ser Ala
1               5                   10                  15
Pro Leu Asn Pro Gly Arg Ser Leu Gly Gln Thr Leu Gly Glu Xaa Xaa
            20                  25                  30
Asp Ala Ser Pro Phe Arg Thr Phe Pro Leu Ser Gln Gln Xaa Ile Arg
        35                  40                  45
Thr Leu Ser Asn Pro Leu Tyr Leu Ser Ser Ser Leu Xaa Val Leu Lys
    50                  55                  60
Val Asn Ile Ala Pro Asp Gly Ala Ile Ile Lys Ala Ser Ala Ser Lys
65                  70                  75                  80
Asp Arg Arg Leu Leu Thr His Thr Gly Pro Ala Val Val Phe Glu Asn
                85                  90                  95
Pro Glu Asp Leu Ala Lys Arg Ile Asp Asp Pro Asp Leu Asp Val Thr
            100                 105                 110
Lys Asp Ser Val Leu Val Leu Lys Gly Ile Gly Pro Ile Gly Asn Pro
        115                 120                 125
Gly Met Pro Glu Ala Gly Leu Ile Pro Ile Pro Arg Lys Leu Ala Ser
    130                 135                 140
Ala Gly Ile Lys Asp Met Leu Arg Leu Ser Asp Gly Arg Met Ser Gly
145                 150                 155                 160
Thr Ala Gly Gly Thr Ile Val Leu His Ile Ser Pro Glu Ser Ala Leu
                165                 170                 175
Pro Glu Ser Pro Phe Gly Val Val Gln Thr Gly Asp Met Ile Thr Cys
            180                 185                 190
Asn Ala Asp Ser Gly Lys Leu Asn Leu Glu Ile Ser Asp Glu Glu Leu
        195                 200                 205
Lys Phe Arg Val Glu Thr Arg Lys Lys Glu Ala Asp Ala Ala Thr Ala
    210                 215                 220
Cys Leu His Arg Ala Arg Ser Arg Gly Tyr Arg Gly Leu Tyr Glu Arg
225                 230                 235                 240
Ser Val Asn Gln Ala Gln Asp Gly Ala Asp Phe Asp Phe Leu Thr Ala
                245                 250                 255
Val Gly Pro Ser Asp Ile Ser Lys
            260
```

<210> 37167
<211> 290
<212> PRT
<213> A.fumigatus

<400> 37167
Arg Lys Val Ile Arg Pro Thr His Gln Ala Phe Val Ser Trp Asp Glu
1 5 10 15
Gly Asn Asp Pro Gly Val Lys Phe Arg Asp Leu Asp Asp Val Ser Glu
20 25 30
Ser Met Lys Gln Arg Ile Arg Lys Phe Lys Glu Leu Gly Leu Ser Pro
35 40 45
Arg Ser Ser Ala Pro Gly His Leu Ser Leu Phe Trp Ala Leu Asn Ala
50 55 60
Asn Ser Pro Asn Val Val Phe Trp Asn Ile Leu Arg Ile Tyr Ser Asp
65 70 75 80
Pro Ala Leu Leu Glu Glu Val Arg Lys Glu Ile Ala Pro Phe Val Lys
85 90 95
Val Tyr Arg Pro Ser Arg Glu Glu Thr Gly Leu Pro Phe Gln Glu Pro
100 105 110
Val Lys Val Ser Leu Asp Pro Asp Glu Leu Phe Arg Ser Cys Pro Leu
115 120 125
Leu Lys Ala Ser Phe Tyr Glu Thr Met Arg Leu Asp Ser Ala Gly Leu
130 135 140
Ser Phe Arg Glu Val Thr Ser Asp Leu Thr Val Thr Glu Ser Pro Glu
145 150 155 160
Asp Ala Ala Ala Ala Ser Leu Ala Glu Pro Arg Thr Tyr Arg Ile Lys
165 170 175
Lys Gly Gly Asn Ile Val Met Ala His Gly Met Val Gln Arg Asp Pro
180 185 190
Arg Leu Phe Ser Asn Pro Glu Gln Phe Asp Pro Leu Arg Phe Val Val
195 200 205
Thr Asp Pro Asp Thr Gly Ala Arg Lys Ala Asp Met His Thr Ile Tyr
210 215 220
Pro Phe Gly Ala Gly Val Ser Gly Cys Lys Gly Arg Ala Leu Ala Glu
225 230 235 240
Arg Met Asn Leu Leu Phe Thr Ala Ala Ile Ile Ser Thr Trp Asp Ile
245 250 255
Glu Pro Ala Ser Gly Lys Ala Leu Thr Val Pro Gly His Arg Pro Ser
260 265 270
Ser Gly Ala Tyr Leu Pro Lys Asp Asp Ile Arg Val Arg Leu Arg Met
275 280 285
Arg Val
290

<210> 37168
<211> 98
<212> PRT
<213> A.fumigatus

<400> 37168
Ser Cys Leu Thr Glu Leu Gly Cys Asp Lys Thr Val Pro Ala Gln Leu
1 5 10 15
Met Gly Gly Ile Ser Ala Asn Lys Pro Val Leu Pro Leu Val Thr Gly
20 25 30
Pro Met Met Pro Gly Ser Tyr Arg Gly Gln Arg Ile Gly Ala Cys Thr

```
        35                  40                  45
Asp Cys Arg Asn Asn Trp Ala Ala Phe Arg Ala Gly Asp Ile Asp Ile
    50                  55                  60
Glu Glu Ile Ser Ala Ile Asn Asp Glu Leu Ala Pro Thr Val Cys Leu
65                  70                  75                  80
Tyr Cys Tyr Ser Asp Ser Gln Leu Ser Ala Ile His His Ala Asp Ser
                85                  90                  95
Gly Phe
```

<210> 37169
<211> 196
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (163),(178),(193)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37169

```
Ile Gly Thr Cys Gly Val Met Gly Thr Ala Ser Thr Met Ala Cys Val
1               5                   10                  15
Thr Ala Ala Leu Gly Leu Met Pro Leu Arg Gly Ala Ser Ala Pro Ala
            20                  25                  30
Val Ser Ser Ala Arg Val Arg Ile Ala Glu Glu Thr Gly Ala Asn Ala
        35                  40                  45
Val Ala Ala Ala Ile Ala Lys Arg Arg Pro Gln Asp Ile Leu Ser Lys
    50                  55                  60
Glu Ser Phe Leu Asn Ala Ile Thr Val Leu Gln Ala Ile Gly Gly Ser
65                  70                  75                  80
Thr Asn Ala Val Val His Leu Met Ala Ile Val Asn Arg His Pro Lys
                85                  90                  95
Leu Gln Gly Ala Ile Thr Leu Asp Thr Phe Ala Glu Ile Gly Arg Ser
            100                 105                 110
Thr Pro Leu Leu Ile Asp Leu Lys Pro Thr Gly Asp Asn Tyr Met Asn
        115                 120                 125
Asp Phe His Asn Ala Gly Gly Met Leu Ala Leu Leu His Thr Leu Arg
    130                 135                 140
Pro Leu Leu His Leu Ser Thr Leu Asp Asp Leu Trp Ala Arg Leu Trp
145                 150                 155                 160
Ala Ser Xaa Trp Thr His Leu His Phe Ala His Ser His Phe Arg Ser
                165                 170                 175
Arg Xaa Ser Glu His Tyr Pro Ile His Phe Thr Phe His Leu Leu Ser
            180                 185                 190
Xaa Ser Ser Lys
        195
```

<210> 37170
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37170

```
Leu Leu Ile Asp Tyr Ser Leu Cys Ser Gly Asn Val Leu Pro Gly Arg
1               5                   10                  15
```

```
Pro Ala Ser Leu Ser Thr Glu Asn Ser Lys Ser Lys Tyr Asn Leu Arg
            20                  25                  30
Met Tyr Leu Leu Ser Phe Ser Asn Phe Asn Cys Arg Thr Gly Val Phe
        35                  40                  45
His Val Leu Ala His Glu Ala Ile Asn Asp Pro Asp Ser Val Asn Ile
    50                  55                  60
Gly Thr Thr Pro
65
```

<210> 37171
<211> 62
<212> PRT
<213> A.fumigatus

<400> 37171

```
Gly Ala Cys Glu Asn Pro Arg Ser Ser Gly Ala His Asp Gly Ile Asp
1               5                   10                  15
Tyr Ser Ala Cys Cys Asp Ala Ser Leu Asp Asp His Ala Cys Arg Ser
            20                  25                  30
Ile Ala Ser Asp Arg Ile Ile Pro Ser Asn Ile Ile Asp Arg Leu Arg
        35                  40                  45
Gly Ala Pro Val Cys Asp Thr Glu Ser Glu Val Gly Gln Val
    50                  55                  60
```

<210> 37172
<211> 309
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222>
(254),(255),(256),(262),(263),(265),(271),(272),(273),(274),(275),(276),(277),(291),(301),(302)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37172

```
Val Gly Arg Arg Gln Ala Trp Ser Ile Ala Asn Leu Leu Phe Ala Gln
1               5                   10                  15
Lys Pro Asp Pro Ile Ser Thr Lys Lys Met Cys Ile Ile Thr Leu Thr
            20                  25                  30
Arg Ile Phe His Leu Thr Tyr Gln Tyr Pro Thr Leu Val Arg Glu Ile
        35                  40                  45
Thr Thr Pro Ser Leu Pro Gly Phe Ile Thr Ser Ser Leu Asn Leu Ile
    50                  55                  60
Ser Val Lys Pro Ala Ser Glu Pro Ile Arg Lys Leu Lys Pro Asn Thr
65                  70                  75                  80
Pro Phe Leu Glu Ile Val Leu Ser Ala Phe Leu Glu Leu Ile Ala Arg
                85                  90                  95
His Pro Thr Ile Phe Arg Pro Phe Ser Ala Gln Ile His Ser Ile Leu
            100                 105                 110
Gln Glu Ile Ile Gly Ala Thr Ala Pro Thr Phe Pro Gly Ala Thr Val
        115                 120                 125
Asp Leu Ala Glu Gln Leu Phe Ile Ala Leu His Asn Cys Ala Pro Lys
    130                 135                 140
Asn Thr Ser Ala Glu Glu Trp Lys Asn Ala Cys Arg Leu Thr Ile Ser
```

```
145                 150                 155                 160
Ser Ala His Arg Ala Ala Asp Tyr Val Leu Arg Gly Val Val Glu Gln
                165                 170                 175
Trp Glu Ser Val Asp Ala Thr Leu Arg Gln Gly Ala Gln Pro Gln Asp
            180                 185                 190
Tyr Ser Gln Val Val Ala Asp Ala Gly Pro Asp Ala Leu Gly Leu Pro
        195                 200                 205
Gly Trp Glu Gly Ile His Ala Gly Val Glu Arg Leu Thr Val Leu Leu
    210                 215                 220
Arg Leu Leu Ala Arg Phe Leu Thr Val Pro Thr Ala Ser Ala Val Thr
225                 230                 235                 240
Ile Pro Leu Gly Leu Ile Leu Asp Leu Thr Ser Arg Leu Xaa Xaa Xaa
                245                 250                 255
Gly Gly Gly Gly Gly Xaa Xaa Gly Xaa Gly Gly Gly Gly Gly Xaa Xaa
            260                 265                 270
Xaa Xaa Xaa Xaa Xaa Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
        275                 280                 285
Gly Gly Xaa Gly Gly Gly Gly Gly Gly Gly Gly Gly Xaa Xaa Gly Gly
    290                 295                 300
Gly Gly Gly Gly Gly
305
```

<210> 37173
<211> 127
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (8),(9),(20),(34),(35),(36),(37),(38),(39),(40),(45),(48),(54),(55),(56)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37173

```
Pro Pro Pro Pro Pro Pro Pro Xaa Xaa Pro Pro Pro Pro Pro Pro Pro
1               5                   10                  15
Pro Pro Pro Xaa Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro
            20                  25                  30
Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro Pro Pro Pro Xaa Pro Pro Xaa
        35                  40                  45
Pro Pro Pro Pro Pro Xaa Xaa Xaa Lys Val Val Met Ser Asp Pro Lys
    50                  55                  60
Ser Ser Pro Val Glu Leu Ser Pro Pro Thr Pro Ser Val Leu Ser Glu
65                  70                  75                  80
Ile Gly Leu Ala Ser Val Arg Val Pro Ser Val Phe Pro Leu Gln His
                85                  90                  95
Glu Cys Pro Pro Ser Arg Glu Val Leu Ala His Leu Ala Gln His Gln
            100                 105                 110
Pro Pro Pro Gly Cys Asn Pro Ala Ala Glu His Leu Val Ser Arg
        115                 120                 125
```

<210> 37174
<211> 308
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (273)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37174
Ile Leu Tyr Arg Ala Ala Thr Lys Thr Tyr His Ser Tyr Leu Ile Leu
1 5 10 15
Arg Arg Leu Phe His Val His Ser Ala Leu Ala Asp Phe Asp Leu Ala
20 25 30
Val Lys Ala Leu Asp Ser Tyr Ile Glu Ile Val Leu Gly Ala Lys Ala
35 40 45
Arg Ala Glu Lys Ala Ala Gln Tyr Gly Glu Leu Glu Ser Asp Glu Asn
50 55 60
Leu Leu Gln Thr Leu Ala Glu Gly Val Thr Met Leu Val Cys Phe Gly
65 70 75 80
Ser Asp Lys Glu Ala Glu Lys Ala Lys Asp Leu Val Ala Ile Leu Lys
85 90 95
Lys Phe Val Ala Lys His Val Gln Glu Ile Glu Asp Asp Gly Glu Glu
100 105 110
Ala Lys Leu Val Ile Arg Gln Asp Ser Asp Asp Ser Gln Val Val Ser
115 120 125
Pro Arg Val Ile Ala Thr Ala Tyr Arg Ala Ile Gly Thr Gly Leu Ala
130 135 140
Asn Trp Ala Ser Trp Thr Pro Arg Asn Glu Asp Arg Asp Asp Ile Arg
145 150 155 160
Ala Glu Ala Ile Glu Asn Leu Glu Arg Ser Ile Ala Pro Glu Leu Gly
165 170 175
Asp Glu Phe Asn Tyr Ser Ser Leu Tyr Thr Leu Ala Leu Leu Leu Ala
180 185 190
Glu Ser Arg Asp Leu Asp Gly Ala Ile Asp Tyr Leu Lys Ser Ala Leu
195 200 205
Ser Tyr Thr Gln Thr His Gly Pro Gln Ser Asp Leu Ser Arg Glu Arg
210 215 220
Asp Leu Val Pro Leu Trp His Leu Leu Ala Leu Leu Leu Ser Ala Lys
225 230 235 240
Gln Asp Tyr Asp Ile Ala Glu Arg Ser Cys Glu Ala Ala Phe Glu Gln
245 250 255
Phe Pro Ser Ala Val Val Ser Leu Val Asn Gly Ser Arg Gly Ser Gln
260 265 270
Xaa Pro Arg Thr Asp Pro Val Tyr Pro Pro Lys Thr Thr Glu Leu Gly
275 280 285
Pro Pro Leu Asp Gln Pro Pro Ala Trp Ala Lys Lys Gly Thr Pro Pro
290 295 300
Leu Lys Thr Pro
305

<210> 37175
<211> 143
<212> PRT
<213> A.fumigatus

<400> 37175
Pro Pro Thr Ser Pro Ala Ser Ala Ser Arg Asn Lys Pro Ala Ala Pro
1 5 10 15
Thr Arg Lys Thr Cys Ser Ser Asn Ser Thr Ser Pro Leu Ala Ala Gly
20 25 30

```
Ala Ala Arg Ser Ser Pro Phe Phe Pro Ala Gly Thr Pro Val Thr Thr
        35                  40                  45
Ser Gly Ala Ala Ala Pro Val Glu Ile Phe Ala Val Asn Gly Pro Leu
    50                  55                  60
Ser Arg Ser Pro His Gly Ile Asp Val Ser Trp Ala Tyr Cys Pro Ala
65                  70                  75                  80
Pro Gly Ala Leu Val Gly Ser Thr Ala Phe Glu Ser Asp Pro Asn Glu
                85                  90                  95
Ala Arg Thr Arg Phe Val Asn Ser Phe Ser Cys Thr Asp Lys Met Thr
            100                 105                 110
Tyr Arg Leu Ser Ile Ala Ser Trp Tyr Lys Gln Ala Ala Ser Val Glu
        115                 120                 125
Phe Ala Gln Gly Pro Gly Val Gly Leu Arg Met Thr His Asn Cys
    130                 135                 140
```

<210> 37176
<211> 173
<212> PRT
<213> A.fumigatus

```
<400> 37176
Arg Arg Ile Gln Met Glu Asp Leu Ile Tyr Ser Met Ser Leu Tyr Ile
1               5                   10                  15
Glu Thr Leu Ser Ala Ile Lys His Pro Ser Leu His His Pro Lys Leu
            20                  25                  30
Ser Ala Ser Tyr Asn Pro Ser Ala Ser His Arg Thr Leu Gly Thr Asn
        35                  40                  45
Thr Ser Leu Val Arg Leu Ala Thr Asp Tyr Ile Tyr Lys Pro Ile Ile
    50                  55                  60
Pro Arg Asn Thr Ile Ile Ser Leu Gly Phe Leu Arg Ala Pro Lys Arg
65                  70                  75                  80
Ser Arg Lys Met Arg Leu Phe Asn Ala Thr Ser His Gln Leu Thr Asp
                85                  90                  95
Phe Val Glu Thr Ile Pro Pro Tyr Ala Ile Leu Ser His Arg Trp Gln
            100                 105                 110
Asp Lys Glu Val Leu Phe Gln Asp Ile Val Ser Gly Thr Ala Arg Thr
        115                 120                 125
Lys Lys Gly Tyr Glu Lys Ile Thr Gln Cys Cys Ala Gln Ala Leu Arg
    130                 135                 140
Asp Asn Leu Gly Tyr Ile Trp Val Asp Thr Cys Cys Ile Asp Gln Asp
145                 150                 155                 160
Gln Gln Arg Glu Val Leu Gly Gly Ala Glu Leu Asp Val
                165                 170
```

<210> 37177
<211> 532
<212> PRT
<213> A.fumigatus

```
<400> 37177
Val Val Phe Arg Thr Arg Glu Val Trp Tyr Ala Tyr Leu Cys Asp Val
1               5                   10                  15
Asp Val Ala Asp Thr Ser Asp Gly Glu Val Pro Ser Glu Gly Gly Arg
            20                  25                  30
Ser Ser Gly Gly Gly Phe Gly Gly Ser Val Trp Phe Thr Arg Gly Trp
        35                  40                  45
```

```
Thr Leu Gln Glu Leu Leu Ala Pro Ala Arg Val Glu Phe Phe Asn Ala
    50                  55                  60
Asp Trp His Pro Leu Gly Ala Lys Ala Glu Leu Lys Ser Ile Ile Ala
65                  70                  75                  80
Gly Ile Thr Gly Ile Pro Glu Ala Val Leu Asp Gly Thr Arg Arg Pro
                85                  90                  95
Gln Glu Leu Ser Val Ala Gln Arg Met Ser Trp Ala Ser Gln Arg Val
            100                 105                 110
Thr Thr Lys Val Glu Asp Met Ala Tyr Ser Leu Leu Gly Leu Phe Glu
        115                 120                 125
Ile Asn Met Pro Met Leu Tyr Gly Glu Gly Lys Arg Ala Phe Ile Arg
    130                 135                 140
Leu Gln Glu Glu Ile Met Arg Gln Ser Asp Asp Gln Thr Leu Phe Ala
145                 150                 155                 160
Trp Thr Arg Ser Ser Gly Ser Ser Ser Ser Pro Ala Asp Ala Glu Thr
                165                 170                 175
Thr Tyr His Gly Leu Leu Ala Gln Ser Pro Ala Asp Phe Arg Asp Ser
            180                 185                 190
Gly Glu Phe Val Gln Ser Gln Gln Arg Phe Asn Arg Ser Pro Phe Ser
        195                 200                 205
Val Thr Asn Met Gly Ile Ser Ile Glu Leu Ala Val Val His Trp Thr
    210                 215                 220
Met Asp Arg Tyr Leu Ala Val Leu Asp Cys Glu Met Gln Ser Lys Lys
225                 230                 235                 240
Ser Arg Val Gly Ile Phe Leu Ala Pro Leu Pro Glu Asn Asn Gln Tyr
                245                 250                 255
Ala Arg Val Met Gly Ala Gly Asp His Leu Pro Thr Leu Pro Ala Asp
            260                 265                 270
Val Lys Ser Glu Tyr Arg Lys Val Tyr Val Arg Gln Arg Ile Ala Gly
        275                 280                 285
Thr Pro Arg Pro Pro Glu Arg Met Tyr Gly Phe Trp Leu Arg Gln Phe
    290                 295                 300
Pro Pro Val Trp Lys Gly Pro His Ser Gln Phe Glu Val Thr Ala Tyr
305                 310                 315                 320
His Pro Trp Asp Glu Thr Glu Arg Lys Leu Cys Ile Pro Pro Gly Lys
                325                 330                 335
Arg Gly Thr Gly Gly Ile Ile Arg Tyr Phe Met Arg Gln Asp Pro Val
            340                 345                 350
Val Asn Leu Arg Val Gly Phe His Ala Leu Leu Asn Pro Gly Val Pro
        355                 360                 365
Phe Gly Gly Phe Phe Met Pro Asp Ala Trp Val Pro Ser Ala Pro Ile
    370                 375                 380
Pro Cys Leu Ser Lys Arg Arg Trp Arg Pro Asn Gly Trp Thr Asn Gly
385                 390                 395                 400
Gly Ser Ala Phe Ser Ser Glu Thr Gly Asn His Gly Leu Asn Val Asn
                405                 410                 415
Asp Gly Met Ile Arg Ile Leu Val Leu Asp Glu Val Val Gln Gly Gln
            420                 425                 430
Pro Met Trp Val Val Tyr Ile Ala Glu Pro Glu Asn Gly Ala Trp His
        435                 440                 445
Lys Asp Cys Val Cys Asp Gly Cys Gln Leu Thr Val Phe Gly Thr Arg
    450                 455                 460
Tyr Arg Cys Gln Ser Cys Pro Gly Phe Asp Tyr Cys Ser Asp Cys Phe
465                 470                 475                 480
Pro Asn Ala Lys His Thr His Pro Gly His Glu Phe Leu Glu Asp Lys
                485                 490                 495
```

```
Pro Val Trp His Ala Gly Val Tyr Cys Asp Trp Cys Ala Glu Val Ser
            500                 505                 510
Met Leu Leu Ser Leu Ser Ser Ala Leu Ala Asp Ser Thr Gly Asp Ile
        515                 520                 525
Trp Pro Ala Val
    530
```

<210> 37178
<211> 194
<212> PRT
<213> A.fumigatus

<400> 37178

```
Pro Arg Thr Thr Tyr Ile Ser Pro Ser Ser Pro Ala Thr Arg Ser Phe
1               5                   10                  15
Leu Trp Asp Ser Ser Val Pro Pro Ser Glu Ala Ala Lys Cys Ala Ser
            20                  25                  30
Ser Thr Pro Pro Pro Thr Asn Ser Pro Thr Ser Ser Arg Pro Ser Arg
        35                  40                  45
Pro Thr Pro Ser Ser Pro Thr Asp Gly Arg Thr Arg Arg Ser Ser Ser
    50                  55                  60
Lys Thr Ser Cys Arg Ala Arg His Ala Pro Lys Arg Gly Thr Arg Lys
65                  70                  75                  80
Ser Arg Asn Ala Ala His Arg Pro Ser Ala Thr Ile Trp Gly Ile Ser
                85                  90                  95
Gly Ser Ile Arg Ala Ala Ser Thr Lys Thr Ser Ser Ala Lys Phe Ser
            100                 105                 110
Glu Ala Leu Asn Ser Met Tyr Glu Trp Tyr Ser Glu Arg Gly Arg Cys
        115                 120                 125
Gly Thr Leu Ile Cys Ala Thr Trp Met Trp Leu Ile Arg Arg Thr Ala
    130                 135                 140
Lys Cys Arg Arg Lys Glu Glu Glu Ala Val Ala Gly Gly Ser Glu Ala
145                 150                 155                 160
Val Ser Gly Ser Arg Ala Ala Gly Arg Cys Arg Ser Ser Leu Arg Arg
                165                 170                 175
Arg Gly Ser Asn Ser Ser Met Arg Ile Gly Thr Arg Ser Ala Pro Arg
            180                 185                 190
Arg Ser
```

<210> 37179
<211> 156
<212> PRT
<213> A.fumigatus

<400> 37179

```
Arg Ile Asn Ile Pro Arg Ile His Thr Ile Arg Thr Ser Ile Ser His
1               5                   10                  15
Ile Phe Lys Ala Thr Ser Tyr Thr Met Arg Phe Leu Thr Ser Ile Thr
            20                  25                  30
Pro Leu Val Ser Leu Leu Pro Leu Ile His Ala Leu Pro Ser Pro Thr
        35                  40                  45
Ser Cys Thr Thr Val Thr Pro Asp Ile Ala Arg Val Ser Glu Ala Asp
    50                  55                  60
Pro Val Ala Ser Tyr Leu Pro Gly Phe Arg Ile Ser Gln Gln Ala Gly
65                  70                  75                  80
```

```
Gly Thr Asn Lys Glu Asp Met Phe Val Glu Phe Asn Ile Thr Ala Gly
                85                  90                  95
Ser Trp Gly Cys Ser Leu Phe Ser Leu Leu Pro Arg Arg His Ala Gly
            100                 105                 110
His His Leu Arg Ser Arg Arg Ala Arg Arg Asp Phe Arg Arg Glu Arg
        115                 120                 125
Pro Pro Gln Pro Val Ser Ala Arg His Arg Arg Val Leu Gly Val Leu
    130                 135                 140
Ser Gly Thr Arg Gly Ala Gly Arg Glu Tyr Arg Leu
145                 150                 155
```

<210> 37180
<211> 172
<212> PRT
<213> A.fumigatus

<400> 37180

```
Thr Ala Pro Ala Glu Cys Gln Asp His His Ala Leu Ile Asp Thr Arg
1               5                   10                  15
Ile Ser Thr Pro Leu Tyr Leu His Leu Phe His Leu Arg Ser Val Thr
            20                  25                  30
Phe Thr Pro Asp Asn Leu Gln Arg Asp Thr Ser Lys Met Gly Tyr Val
        35                  40                  45
Asn Lys His His Thr His His Asp Val Leu Thr Ser Asn Arg Tyr Thr
    50                  55                  60
His Tyr Tyr Thr Val Asp Asn Thr Ser Ser Arg Glu Trp Gln Thr Ala
65                  70                  75                  80
Trp Pro Gln Leu Val Glu Asp Ala Gln Lys Asn Ile Asp Ser Ala Ser
                85                  90                  95
Ile Pro Ile Gly Gly Pro Asp Phe Asp Ala Gly Pro Pro Ile Ile Asp
            100                 105                 110
Val Lys Gln Gly Ile His Leu Asn Gly Val Gly Asp Asp Gly His Glu
        115                 120                 125
Pro Leu Cys Leu Asp Arg His Gly Asn Ala Gly Phe Ser Phe Ile Lys
    130                 135                 140
Thr Ala Arg Lys Pro Tyr Asp Glu Val Val Ala Cys Ile Leu Leu Arg
145                 150                 155                 160
Ala Ala Val Leu Ala Pro Thr Cys Val Cys Leu Arg
                165                 170
```

<210> 37181
<211> 524
<212> PRT
<213> A.fumigatus

<400> 37181

```
Lys Arg Thr Pro Pro Val Cys Pro Ser Ile Arg Pro Pro Ser Ala Leu
1               5                   10                  15
Arg Lys Ala Trp Asp Arg Arg Ala Arg Asn Pro Ser Val Gly His Lys
            20                  25                  30
Lys Ala Thr Lys Trp Asp Pro Gly Val Gln Gln Gly Val Glu Ser Asp
        35                  40                  45
Ala Gln Val His Asp Arg Val Leu Ala His Glu Val Ser Asp Asp Ser
    50                  55                  60
Pro Gly Ala Pro Phe Pro Arg Arg Asp Ala Glu Leu Ala Leu Cys Phe
65                  70                  75                  80
```

```
Val Pro Gly Val Val Arg Arg His Leu Glu Leu Arg Val Arg Ala Leu
                85                  90                  95
Pro Asn Arg Gly Lys Leu Pro Gln Pro Glu Pro Val His Ala Leu Arg
            100                 105                 110
Gly Pro Trp Gly Pro Cys Asp Ser Leu Ser His Val His Leu Ala Ile
        115                 120                 125
Leu Gly Leu His Val Gly Arg Gln Cys Arg Gln Val Val Ser Ser Ala
    130                 135                 140
His His Pro Arg Ile Leu Val Val Phe Arg Gln Arg Arg Glu Glu Asp
145                 150                 155                 160
Pro His Pro Ala Leu Leu Ala Leu His Leu Ala Val Gln His Arg Glu
                165                 170                 175
Val Pro Val His Arg Pro Val His His Ser Gln Leu Asn Thr Asp Pro
            180                 185                 190
His Val Arg His Gly Glu Arg Thr Pro Val Glu Pro Leu Leu Arg Leu
        195                 200                 205
His Glu Leu Ala Ala Val Ser Lys Val Arg Arg Arg Leu Arg Gln Gln
    210                 215                 220
Pro Met Val Gly Arg Leu Ser Ile Arg Arg Arg Arg Thr Arg Thr Arg
225                 230                 235                 240
Arg Pro Arg Pro Arg Lys Gln Arg Leu Val Ile Arg Leu Pro His Asn
                245                 250                 255
Leu Leu Leu Gln Pro Asp Lys Arg Pro Leu Ala Leu Pro Val Gln His
            260                 265                 270
Arg His Val Asp Leu Glu Gln Ala Glu Gln Ala Ile Arg His Ile Leu
        275                 280                 285
Asp Phe Gly Arg His Pro Leu Arg Arg Pro Arg His Pro Leu Arg Asp
    290                 295                 300
Ala Gln Leu Leu Trp Pro Ala Arg Pro Val Gln His Arg Leu Gly Asp
305                 310                 315                 320
Ala Gly Asn Pro Ser Asp Asp Ala Leu Gln Leu Arg Leu Gly Ala Glu
                325                 330                 335
Arg Val Pro Ile Arg Ile Glu Glu Phe Asp Pro Arg Arg Arg Lys Glu
            340                 345                 350
Leu Leu Gln Arg Pro Ala Ala Arg Glu Pro Asp Thr Ala Ser Glu Pro
        355                 360                 365
Pro Ala Thr Ala Ser Ser Ser Phe Arg Arg His Phe Ala Val Arg Arg
    370                 375                 380
Ile Ser His Ile His Val Ala Gln Ile Ser Val Pro His Leu Pro Arg
385                 390                 395                 400
Ser Glu Tyr His Ser Tyr Ile Glu Phe Ser Ala Ser Glu Asn Phe Ala
                405                 410                 415
Leu Leu Val Leu Val Asp Ala Ala Arg Ile Asp Pro Asp Ile Pro Gln
            420                 425                 430
Ile Val Ala Glu Gly Leu Cys Ala Ala Leu Arg Asp Phe Leu Val Pro
        435                 440                 445
Leu Phe Gly Ala Cys Arg Ala Arg His Asp Val Leu Glu Glu Asp Leu
    450                 455                 460
Leu Val Leu Pro Ser Val Gly Glu Asp Gly Val Gly Arg Asp Gly Leu
465                 470                 475                 480
Asp Glu Val Gly Glu Leu Val Gly Gly Gly Val Glu Glu Ala His Phe
                485                 490                 495
Ala Ala Ser Leu Gly Gly Thr Glu Glu Ser Gln Arg Asn Asp Arg Val
            500                 505                 510
Ala Gly Asp Asp Gly Leu Ile Tyr Val Val Arg Gly
        515                 520
```

<210> 37182
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37182
Thr His Ser Asp Phe Ser Ala Trp Ser Ile Arg Tyr Thr Leu Ala Val
1 5 10 15
Ala Tyr Phe Thr Ile Thr Leu Ile Phe His Ser Phe Arg Tyr Ile Lys
20 25 30
Val Lys Gly Ser Ser Leu Ala Phe Cys Leu Leu Cys Ile Leu Gly Val
35 40 45
Leu Thr Gly Ser Arg His Ser His Tyr Tyr Val Arg Ser Ser Thr Leu
50 55 60
Leu His Asn Ala
65

<210> 37183
<211> 213
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (135)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37183
Lys Pro Pro Pro Pro Pro Gln Lys Phe Phe Pro Pro Pro Phe Leu Gly
1 5 10 15
Pro Pro Ala Gly Gly Gly Gly Lys Lys Asn Leu Ser Leu Phe Pro Pro
20 25 30
Lys Lys Pro Pro Phe Lys Lys Phe Phe Phe Phe Ser Pro Pro Pro Phe
35 40 45
Phe Phe Phe Leu Gly Gly Phe Phe Phe Pro Pro Phe Phe Leu Gly Lys
50 55 60
Asn Phe Lys Asn Phe Pro Pro Pro Pro Pro Phe Gly Gly Glu Lys Phe
65 70 75 80
Phe Ser Pro Gly Pro Gln Lys Leu Gly Phe Trp Gly Pro Phe Pro Pro
85 90 95
Gln Gly Gly Pro Lys Lys Thr Pro Pro Pro Pro Gln Arg Gly Pro Phe
100 105 110
Leu Gly Phe Trp Gly Gly Gly Pro Pro Asn Phe Phe Phe Phe Phe Phe
115 120 125
Phe Ser Pro Asn Pro Asn Xaa Leu Lys Pro Thr Arg Ile Ser Arg Pro
130 135 140
Gly Leu Tyr Ala Ile His Trp Pro Leu Arg Ile Leu Arg Ser Pro Ser
145 150 155 160
Ser Ser Ile Leu Ser Val Thr Ser Arg Ser Lys Val His His Trp Arg
165 170 175
Phe Val Ser Phe Val Phe Ser Glu Phe Ser Arg Gly His Ala Ile Arg
180 185 190
Ile Thr Met Phe Asp His Pro His Cys Cys Ile Met His Arg Arg Gly
195 200 205
Ala Gly Gln Tyr Ile

210

<210> 37184
<211> 115
<212> PRT
<213> A.fumigatus

<400> 37184
Thr Ser Asn Ser Lys Ser Glu Arg Asn Gln Glu His Arg Gln Arg Ser
1 5 10 15
Ala Cys Thr Ser Arg Gln Arg Tyr Pro His Pro Ile His Glu Arg Thr
20 25 30
Thr Tyr Pro Ala Lys Val Gln Asn Glu Pro Ala Met Gly Ile Asn Ala
35 40 45
Ala Ile Ser Pro Arg Leu Asn Ile Val Thr Asn Thr Ile Pro Pro His
50 55 60
Met Ala Tyr Glu Ile Ser Ile Asp Ala Gly Pro Pro Val Ala Arg Ala
65 70 75 80
Leu Pro Val Pro Arg Lys Ser Pro Val Pro Ile Val Pro Pro Met Ala
85 90 95
Ile Ile Cys Thr Trp Arg Ala Glu Ser Leu Arg Ala Ser Leu Ser Ala
100 105 110
Leu Thr Cys
115

<210> 37185
<211> 89
<212> PRT
<213> A.fumigatus

<400> 37185
Gly Glu Gly Ile Ala Asp Asp Trp Cys Arg Arg Phe Val Asp Asp Ala
1 5 10 15
Leu Gly Phe Ala Leu Thr Trp Asn Tyr Trp Phe Asn Asp Ala Val Ser
20 25 30
Thr Ala Ala Asp Val Ile Ala Leu Gln Leu Leu Leu Gln Tyr Trp Thr
35 40 45
Asp Asn Phe Pro Gly Trp Ala Ile Ser Leu Ile Phe Leu Ile Phe Val
50 55 60
Ile Leu Leu Asn Val Met Ser Val Arg Ile Tyr Gly Glu Val Trp Ser
65 70 75 80
Trp Cys Ala Phe Cys Arg Glu Val Asn
85

<210> 37186
<211> 167
<212> PRT
<213> A.fumigatus

<400> 37186
Ala Ser Pro Asn Ser Glu Thr Ser Ile Val Gly Val Ser Asn Gln Ile
1 5 10 15
Ser Trp Val Cys Ile Gly Ile Ala Ser Leu Arg Phe Arg Ala Ala Ile
20 25 30
Arg Arg Gln Asn Leu Glu His Leu Leu Pro Phe Lys Asn Trp Thr Tyr
35 40 45

```
Pro Val Gly Pro Ile Ile Ala Val Gly Leu Asn Ile Val Leu Ile Leu
    50                  55                  60
Val Gln Gly Trp Ser Cys Phe Ser Pro Ser Phe Gln Ala Val Asp Phe
65                  70                  75                  80
Val Ser Phe Tyr Ile Glu Ile Pro Ile Met Ile Val Met Phe Leu Ala
                85                  90                  95
Trp Lys Leu Val Lys Gln Thr Arg Phe Val His Leu Asp Glu Met Asp
            100                 105                 110
Leu Val Thr Asp Arg Tyr Asp Leu Asn Ala Glu His Ala Glu Ser Asp
        115                 120                 125
Gly Asn Ala Asp Gly Asp Ser Pro Ser Arg Val Gly Arg Ile Leu His
    130                 135                 140
Ile Lys Gln Leu Gln Ser Glu Lys Gly Val Leu Gly Lys Leu Lys Arg
145                 150                 155                 160
Val Gly Met Trp Leu Phe Leu
                165
```

<210> 37187
<211> 172
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (38)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37187

```
Thr Phe Asp Leu Asp Val Thr Glu Arg Met Glu Asp Glu Gly Asp Arg
1               5                   10                  15
Lys Ile Arg Asn Gly Gln Cys Ile Ala Tyr Arg Pro Gly Arg Glu Ile
            20                  25                  30
Arg Val Gly Leu Arg Xaa Phe Gly Phe Gly Glu Lys Lys Lys Lys Lys
        35                  40                  45
Lys Lys Phe Gly Gly Pro Pro Pro Gln Asn Pro Lys Lys Gly Pro Leu
    50                  55                  60
Trp Gly Gly Gly Gly Val Phe Phe Gly Pro Pro Trp Gly Gly Lys Gly
65                  70                  75                  80
Pro Gln Lys Pro Asn Phe Trp Gly Pro Gly Glu Lys Asn Phe Ser Pro
                85                  90                  95
Pro Lys Gly Gly Gly Gly Gly Lys Phe Leu Lys Phe Phe Pro Lys Lys
            100                 105                 110
Lys Gly Gly Lys Lys Lys Pro Pro Lys Lys Lys Lys Lys Gly Gly Gly
        115                 120                 125
Glu Lys Lys Lys Asn Phe Leu Lys Gly Gly Phe Phe Gly Gly Lys Arg
    130                 135                 140
Glu Arg Phe Phe Phe Pro Pro Pro Pro Ala Gly Gly Pro Lys Lys Gly
145                 150                 155                 160
Gly Gly Lys Asn Phe Trp Gly Gly Gly Gly Gly Phe
                165                 170
```

<210> 37188
<211> 65
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (10)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37188
Gly Phe Ser Ala Ser Glu Asp Glu Ala Xaa Arg Pro Ser Lys Lys Pro
1 5 10 15
Lys Val Lys Phe Thr Glu Ala Asn Asp Arg Glu Glu Ala Glu Pro Trp
20 25 30
Tyr Lys Lys Ser Lys Lys Ser Ser Asp Gln Ala Ala His Thr Pro Arg
35 40 45
Gln Ile Gln Thr Leu Glu Asp Leu Glu Ser Leu Ala Thr Gly Leu Leu
50 55 60
Gly
65

<210> 37189
<211> 145
<212> PRT
<213> A.fumigatus

<400> 37189
Ile Pro Lys Arg Gly Ser Gly Ala Trp Gln Arg Ser Gly Glu Gly Leu
1 5 10 15
Lys Arg Phe Leu Ala Glu Leu Ser Ser Leu Cys Met Ile Glu Ala Lys
20 25 30
Met Thr Val His Asp Ile Glu Lys Tyr Pro Pro His Ala Pro Gln Glu
35 40 45
Pro Leu Ser Gly Lys Ala Ala Gly Ala Glu Pro Phe Glu Phe Asn Gln
50 55 60
His Val Asn Ala Asp Arg Leu Ala Arg Lys Leu Ser Ala Arg Gln Val
65 70 75 80
Gln Met Ile Ala Ile Gly Gly Thr Ile Gly Thr Gly Leu Phe Leu Gly
85 90 95
Thr Gly Lys Ala Leu Ala Thr Gly Gly Pro Ala Ser Met Leu Ile Ser
100 105 110
Tyr Ala Ile Cys Gly Gly Ile Val Phe Val Thr Met Leu Ser Leu Gly
115 120 125
Glu Met Ala Ala Phe Ile Pro Ile Ala Gly Ser Phe Cys Thr Phe Ala
130 135 140
Gly
145

<210> 37190
<211> 167
<212> PRT
<213> A.fumigatus

<400> 37190
His Lys Glu Cys Arg Thr Glu Leu Thr Ser Ser Ser Gly Gly Thr Glu
1 5 10 15
Ser Ile Ala Ile Thr Ala Gly Glu Thr Lys Asp Pro Ala Lys Asn Leu
20 25 30
Pro Arg Val Val Arg Asn Val Phe Trp Arg Ile Val Leu Phe Tyr Ile
35 40 45

```
Ile Ser Ile Ile Leu Ile Gly Leu Asn Val Pro Tyr Asn Tyr Pro Asn
    50                  55                  60
Leu Ser Lys Lys Thr Thr Ala Thr Ser Pro Phe Thr Ile Val Phe Met
65                  70                  75                  80
Glu Ala Gly Ser Ala Val Ala Gly Ser Phe Ile Asn Ala Val Leu Met
                85                  90                  95
Thr Ser Val Ile Ser Ala Ala Asn His Ala Leu Phe Ala Gly Ser Arg
            100                 105                 110
Leu Leu Tyr Thr Leu Ala Val Asp Gly His Ala Pro His Phe Phe Gly
        115                 120                 125
His Leu Asn Arg Phe Gln Ile Pro Trp Val Ala Val Leu Ala Thr Ser
    130                 135                 140
Leu Val Ser Gly Leu Cys Ile Gly Ala Ser Tyr Ile Gly Ala Gly Gln
145                 150                 155                 160
Leu Trp Thr Trp Leu Gln Lys
                165
```

<210> 37191
<211> 99
<212> PRT
<213> A.fumigatus

<400> 37191

```
Tyr Ile Phe Leu Leu Leu Pro Phe Ser Leu Ser Leu Ser Phe Ser Leu
1               5                   10                  15
Ser Val Ser Leu Ile Pro Thr Ser His Ile Tyr Phe Leu Cys Phe Gln
            20                  25                  30
Phe Thr Leu Thr Asp Ser Arg Gly Ile Glu Glu Ile Ser Ala Ile Leu
        35                  40                  45
Arg Ser Arg Ser Leu Phe Asp Glu Glu Ser Asn Thr Leu Pro Ser Ile
    50                  55                  60
Tyr Ser Leu Asn Gln Thr Thr His Thr Arg Asn Pro Lys Asn Ile Pro
65                  70                  75                  80
Ser Ile Cys Pro Asp Asn Pro His Trp Thr Arg Ser Asp Leu Ser Leu
                85                  90                  95
Pro Asn Leu
```

<210> 37192
<211> 194
<212> PRT
<213> A.fumigatus

<400> 37192

```
Leu Thr Arg Ala Ala Ser Lys Lys Leu Val Arg Ser Tyr Glu Ala Val
1               5                   10                  15
Leu Phe Ser Thr Lys Lys Ala Ile His Tyr Leu Val Ser Thr Pro Ser
            20                  25                  30
Ile Lys Gln Leu Thr Leu Glu Thr Pro Arg Ile Tyr His Gln Tyr Ala
        35                  40                  45
Gln Thr Thr Leu Ile Gly Leu Gly Ala Thr Tyr His Cys Gln Ile Cys
    50                  55                  60
Lys Phe Leu Leu Pro Phe Ser Thr Ser Ala Cys Cys Ile Ala Ser Pro
65                  70                  75                  80
Glu Ser Ser Asn Pro Ala Gln Asn Arg Thr Ser Lys Arg Phe Ser Thr
                85                  90                  95
```

```
Val Ser Gly Ser Pro Ser Leu Ala Pro Ser Glu Gln Thr Ile Gly Ser
            100                 105                 110
Leu Pro Ser Gly Asp Pro Arg Leu Ala Glu Phe Asn His Leu Arg Asp
        115                 120                 125
Gly Leu Glu Arg Leu Glu Asn Lys Pro Leu Leu Lys Gln Arg Phe Val
    130                 135                 140
Pro Thr Pro Glu Lys Ser Asp Asn Leu Ser Lys Leu Ala Leu Gly Ala
145                 150                 155                 160
Lys Val Glu Arg Ala Leu Gly Arg Arg Met Thr Ser Gln Asp Ala Val
                165                 170                 175
Met Arg Lys Pro Val Leu Asp Glu Lys Val Ala Thr Ser Glu Thr Ser
            180                 185                 190
Ala Ala
```

<210> 37193
<211> 96
<212> PRT
<213> A.fumigatus

<400> 37193

```
Ser Arg Phe Cys Pro Ile Ala Phe Phe Ser Phe Tyr Phe Leu Gly Asp
1               5                   10                  15
Cys Pro Ile Asn Tyr Thr Arg Leu Glu Asp Tyr Ser Pro Ser Ile Cys
            20                  25                  30
Cys Gly Gly Arg Leu Pro Ile Leu Ser Ser Thr Ser Leu His Ser Ser
        35                  40                  45
Ala Asn Lys Thr Phe Asp His Leu Ile Ile Met Gly Val Leu Arg Leu
    50                  55                  60
Arg Val Asp Gly Gln Thr Phe Arg Asp Pro Asp Asn Arg Glu Ile Thr
65                  70                  75                  80
Leu Arg Gly Ile Asn Val Ala Gly Glu Ala Lys Tyr Pro Lys Lys Pro
                85                  90                  95
```

<210> 37194
<211> 155
<212> PRT
<213> A.fumigatus

<400> 37194

```
Phe Asp Leu Glu Ala Asn Leu Asn Ser Val Thr Arg Asn Val Phe Leu
1               5                   10                  15
Gly Leu Ala Leu Asp Lys Leu Asn Lys Asn Glu Glu Ser Glu Arg Ala
            20                  25                  30
Tyr Arg Ala Ala Thr Arg Ala Lys Ser Asp Asp Lys Thr Ala Trp Gln
        35                  40                  45
Gly Leu Ile Asn Leu Tyr Glu Lys Gln Gly Gly Phe Lys Leu Asp Ala
    50                  55                  60
Tyr His Glu Ala Ala Leu Arg Leu Gly Gln Ile Phe Ala Glu Val Tyr
65                  70                  75                  80
Val Ser Cys Ser Thr Leu Tyr Lys Arg Arg Thr Gly Ala Asn Leu Ile
                85                  90                  95
Leu Ala Thr Thr Ser Thr Val Ala Arg Met Ser Trp Thr Asn Ile Ser
            100                 105                 110
Ser Ser Gln Arg Asn Arg Ala Leu Asp His Asn Ile Arg Arg Leu Leu
        115                 120                 125
```

```
Asn Tyr Thr Ser Gln Arg Val Arg Phe Met Ser Thr Ser Lys Asp Gly
    130                 135                 140
Tyr His Ile Leu Pro Ile His Thr Ser Val Ser
145                 150                 155
```

<210> 37195
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37195

```
Glu Ala Pro Thr Ser Lys Ala Ala Ile Met Ala Gly Gln Arg Ser Glu
1               5                   10                  15
Leu Ser Ser Met Ser Thr Lys Ser Ala Leu Lys Ala Ala Arg Ile Ala
            20                  25                  30
Leu Asp Ser Arg Asp Phe Glu Asp Ala Ala Glu Lys Ala Lys Val Val
        35                  40                  45
Val Lys Gln Glu Pro Gln Asn Tyr His Ala Tyr Val Lys Thr Lys Leu
    50                  55                  60
Ala Asn Ser Thr
65
```

<210> 37196
<211> 676
<212> PRT
<213> A.fumigatus

<400> 37196

```
Ser Asp Pro Ser Asp Asp Lys His Arg Cys Gln Asp Val Val Asp Lys
1               5                   10                  15
Tyr Ile Lys Phe Ala Lys Lys Gln Gly Thr Arg Ser Gln Tyr Lys Lys
            20                  25                  30
Ala Leu Glu Leu His Leu Pro Thr Ser Pro Leu Tyr Val Tyr Leu Glu
        35                  40                  45
Gly Arg Ile Pro His Pro Ser His Thr Tyr Leu Arg Leu Ile Glu Met
    50                  55                  60
Ala Glu Ser Glu Glu Lys Glu Phe Ile Asn Arg Glu Ile Gly Glu Arg
65                  70                  75                  80
Arg Thr Arg Leu Gly Ala Arg Ile Asp His Val Thr Met Glu Val Lys
                85                  90                  95
Arg Glu Ala Phe Lys Arg Gly Glu Leu Glu Gln Leu Tyr Arg Gly Ile
            100                 105                 110
Val Asp Trp Thr His Asp Asp Gln Val Arg Arg Thr Tyr Glu Glu Arg
        115                 120                 125
Leu Leu Gln Arg Thr Tyr Asp Ile Leu Ile Val Leu Pro Pro Ala Glu
    130                 135                 140
Lys Ala Glu Lys Arg Ala Glu Val Leu Gln Ala Ala Arg Asp Met Val
145                 150                 155                 160
Ile Ile Lys His Pro Phe Glu Leu Ala Trp Lys Ile Val Leu Glu Trp
                165                 170                 175
Gln Asp Ile Gln Ser Phe Ser Glu Trp Asp Leu Asn Phe Leu Lys Asp
            180                 185                 190
Phe Ile Glu Phe Phe Pro Glu Asp Gly Leu Thr Lys Ile Leu Lys Gly
        195                 200                 205
Phe Leu Ala Ser Asp Leu Ser Pro Phe Ser Lys Glu Thr Lys Glu Thr
    210                 215                 220
```

```
Lys Glu Pro Thr Pro Thr Glu Glu Glu Thr Glu Asn Gly Asn Gly Asp
225                 230                 235                 240
Asn His Glu Leu Ala Val Gln Asp Arg Leu Leu Met Met Val Glu Gly
                245                 250                 255
Leu Glu Ser Ser Arg Ser Ser Ile Val Ala Asn Arg Ile Met Gly Glu
            260                 265                 270
Leu Tyr Leu Ser Leu Glu Glu Tyr Asp Ser Val Val Asp Val Ala Arg
        275                 280                 285
Lys Gly Leu Ser Asn Ile Thr Asp Leu Ala Arg Leu Thr Gly Ile Ser
    290                 295                 300
Leu Val Asn Thr Thr Asp Cys Leu Lys Thr Leu Leu Ala Asn Ser Leu
305                 310                 315                 320
Ile Tyr Tyr Gln Ile Pro Arg His His Pro Glu Ala Lys Glu Ile Phe
                325                 330                 335
Glu Asp Val Leu Gln Arg Lys Pro Thr Phe Thr Ala Cys Leu Leu Gly
            340                 345                 350
Ile Gly Leu Ile Leu Lys Val Asp Glu Asp Tyr Ala Glu Ala Val Asn
        355                 360                 365
Phe Leu Glu Arg Ala Leu Glu Arg Asp Pro Ser Asn Leu Lys Ile Arg
    370                 375                 380
Gly Glu Leu Ser Trp Cys Lys Ala Leu Asn Gly Asp Leu Glu Thr Gly
385                 390                 395                 400
Leu His Gly Leu Gln Asp Val Leu Ala Glu Leu Gln Asp Met Glu Ser
                405                 410                 415
Pro Asn Arg Glu Phe Lys Ser Glu Ile Leu Tyr Arg Ile Gly Tyr Cys
            420                 425                 430
Gln Trp Glu Leu Asp Pro Ser Pro Thr Ala Arg Lys Asp Arg Ser Gly
        435                 440                 445
Ala Tyr Ala Ser Phe Leu Gly Ser Ile Gln Ser Asn Ile Asn Phe Ala
    450                 455                 460
Pro Ala Tyr Thr Ser Leu Gly Ile Tyr Tyr Ala Asp Tyr Lys Lys Asp
465                 470                 475                 480
Lys Thr Arg Ala Arg Arg Cys Phe His Lys Ala Phe Glu Leu Ser Ala
                485                 490                 495
Ser Glu Ile Glu Ala Ala Glu Arg Leu Ala Arg Thr Phe Ala Asp Gln
            500                 505                 510
Lys Glu Trp Asp Leu Val Glu Ala Val Ala Gln Arg Val Val Asp Ser
        515                 520                 525
Gly Lys Ala Lys Pro Ser Pro Gly Ser Lys Arg Arg Gly Tyr Ser Trp
    530                 535                 540
Pro Tyr Ala Ala Leu Gly Thr Val Gln Met Asn Lys Gln Gln Tyr Ala
545                 550                 555                 560
Gln Ser Ile Val Ser Phe Gln Ala Ala Leu Arg Ile Ser Pro Gly Asp
                565                 570                 575
Tyr His Ser Trp Val Gly Leu Gly Glu Ser Tyr His His Ser Gly Arg
            580                 585                 590
Tyr Ile Ala Ser Ala Lys Ala Phe Asp His Ala Gln Gln Leu Glu Ser
        595                 600                 605
Ala Leu Ser Ser Asp Glu Arg Glu His Ile Trp Phe Ala Arg Tyr Met
    610                 615                 620
Leu Ala Asn Val Lys Arg Glu Leu Gly Glu Phe Lys Asp Ala Ile Ser
625                 630                 635                 640
Arg Tyr Glu Asp Val Leu Lys Phe Arg Pro Asn Glu Leu Gly Val Thr
                645                 650                 655
Ile Ala Leu Leu Gln Thr Leu Ile Glu Val Phe Thr Thr Gly Leu Glu
            660                 665                 670
```

Gly Ala Ala Pro
675

<210> 37197
<211> 115
<212> PRT
<213> A.fumigatus

<400> 37197
Asp Ile Leu Val Ala Leu Gly Ile Val Glu Leu Pro Val Arg Leu Phe
1 5 10 15
Gly Ile Glu Ala Ala Gly Ile Val Thr Arg Val Gly Ala Asp Val Ser
20 25 30
Pro Asp Asp Leu Gln Val Gly Asp Arg Val Val Cys Phe Cys Arg Lys
35 40 45
Asp Ala Phe Ser Thr Tyr Thr Thr Thr Leu Ala Ala Val Cys Val Arg
50 55 60
Ile Pro Asp Ser Leu Thr Phe Asp Gln Ala Gly Thr Met Leu Ile Pro
65 70 75 80
Tyr Phe Thr Ala Ile His Ser Met Val Asn Val Gly Arg Val Thr Lys
85 90 95
Gly Gln Val Ser Gly Lys Lys Thr Arg Cys Tyr Cys Ile Arg Trp Gln
100 105 110
Cys Ile Tyr
115

<210> 37198
<211> 412
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (319)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37198
Ser Val Leu Ile His Ser Ala Cys Gly Gly Val Gly Leu Ala Ala Ile
1 5 10 15
Gln Val Ala Gln Met Leu Glu Ala Asp Val Tyr Val Thr Val Gly Ser
20 25 30
Glu Glu Lys Val Lys Tyr Leu Met Glu Asn Tyr His Ile Pro Arg His
35 40 45
Lys Ile Phe His Ser Arg Asp Arg Ser Phe Val Asp Gly Val Met Arg
50 55 60
Glu Thr Lys Gly Arg Gly Met Asp Phe Ile Leu Asn Ser Leu Ser Gly
65 70 75 80
Glu Leu Leu His Ala Thr Trp Ser Cys Val Ala Glu Phe Gly Thr Leu
85 90 95
Leu Glu Ile Gly Lys Arg Asp Leu Ile Gly Asp Gly Lys Leu Asp Met
100 105 110
Arg Pro Phe Leu Ala Asn Arg Asn Tyr Cys Cys Val Asp Ile Asp Gly
115 120 125
Leu Trp Lys Arg Ile His Val Ala Arg Ala Leu Ile Phe Ser Ile Leu
130 135 140
Asp Phe Tyr Asp Lys Gly Tyr Ile Thr Pro Leu Pro Met Thr Ile Phe

```
145                 150                 155                 160
Pro Ala Thr Gln Thr Gln Asp Ala Phe Arg Phe Met Glu Lys Gly Gln
                165                 170                 175
His Ile Gly Arg Val Gly Val Ser Phe Lys Pro Ala Asp Gly Gly Pro
            180                 185                 190
Gln Leu Gly Leu Glu Thr Thr Lys Arg Ala Leu Thr Ile Ala Phe Asn
        195                 200                 205
Gly Ser Ala Ser Tyr Leu Met Val Gly Gly Leu Gly Gly Ile Gly Arg
    210                 215                 220
Ala Val Ser Thr Trp Met Val Asp His Gly Ala Arg Glu Leu Val Tyr
225                 230                 235                 240
Leu Ser Arg Ser Ala Gly Arg Thr Pro Lys Asp Asp Asp Phe Val Thr
                245                 250                 255
Glu Leu Gln Ser Met Gly Cys Ala Val Arg Leu Val Ser Gly Asp Thr
            260                 265                 270
Thr Lys Leu Ala Asp Val Gln Arg Ala Ile Ala Ala Ala Thr Tyr Pro
        275                 280                 285
Leu Lys Gly Ile Val Gln Met Ser Met Val Val Ala Asn Glu Asn Phe
    290                 295                 300
Thr Arg Met Ser Phe Ala Glu Trp Thr Ala Ser Thr Ala Pro Xaa Val
305                 310                 315                 320
Gln Gly Thr Gly Asn Leu His Asp Ala Ser Val Ala Ala Gly Phe Asn
                325                 330                 335
Leu Asp Phe Phe Val Met Phe Thr Ser Val Ser Gly Ile Val Gly Lys
            340                 345                 350
Ala Gly Leu Thr His Tyr Cys Leu Gly Asn Leu Phe Leu Arg Arg Val
        355                 360                 365
Ser Pro Ile Pro Asp Thr Ala Gly Phe Ala Pro Pro Arg Gly Leu Ile
    370                 375                 380
Trp Gly Thr Val Asp Glu Val Gly Met Asp Ser Gly Thr Pro Ala Pro
385                 390                 395                 400
Asp Trp Gly Tyr Ile Pro Asn Arg Phe Pro Thr Phe
                405                 410
```

<210> 37199
<211> 1096
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (6)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37199

```
Gly Leu Ile Leu Pro Xaa Arg Leu Thr Thr Arg Asp Gly Glu Asp Tyr
1               5                   10                  15
Gln Ser Leu Ile Asn Glu Glu Val Val Gly Arg Glu Pro Ser Ala Leu
            20                  25                  30
Phe Phe Ser Ser Val Thr Gly Gln Val Leu Gly Pro Asp His Ser Thr
        35                  40                  45
Trp Ser Lys Tyr Trp Gln Glu Asn Leu Glu Ser Pro Val Arg Phe Arg
    50                  55                  60
Glu Ala Val Thr Ala Ile Leu Lys His Asp Val Gly Lys Asn Ala Val
65                  70                  75                  80
Phe Leu Glu Val Gly Pro His Gly Ala Leu Ala Gly Pro Leu Arg Gln
```

```
                85                  90                  95
Ile Phe Thr Gln Ala Thr Ser Ser Ala Pro Tyr Val Ser Val Met Ala
            100                 105                 110
Arg Asn Gln Asp Cys Asn Ala Ser Phe Leu Ala Ala Ile Gly Ala Leu
        115                 120                 125
His Ser Leu Asn Val Asp Val Asn Leu Glu Ala Leu Phe Pro Thr Gly
    130                 135                 140
Cys Cys Leu Pro Asp Leu Pro Arg Tyr Pro Trp Asn His Glu Gly Ser
145                 150                 155                 160
Tyr Trp Tyr Glu Ser Arg Leu Ser Lys Glu Trp Arg Asn Arg Arg Phe
                165                 170                 175
Pro Tyr His Asp Leu Leu Gly Ala Arg Val Ala Glu Ser Ser Asp Gly
            180                 185                 190
Glu Pro Ala Trp Arg Asn Met Phe His Val Thr Asn Thr Pro Trp Met
        195                 200                 205
Arg Asp His Arg Val Gly Glu His Ile Val Phe Pro Phe Cys Gly Tyr
    210                 215                 220
Ile Ala Leu Ala Gly Glu Ala Ile Arg Gln Leu Thr Asn Val Glu Glu
225                 230                 235                 240
Gly Phe Ser Val Arg Asn Ile Ile Val Ser Thr Ala Leu Val Leu Ser
                245                 250                 255
Glu Gly Lys Pro Thr Glu Met Met Ala Thr Phe Arg Pro His Arg Leu
            260                 265                 270
Thr Asn Phe Leu Asn Ser Ala Trp Trp Glu Phe Thr Val Ser Ala Tyr
        275                 280                 285
Asn Gly Arg Asn Trp Thr Lys His Cys Thr Gly Glu Val Cys Ala Gln
    290                 295                 300
Ser Ser Ala Pro Glu Gln Thr Gln Asp Pro Ala Gly Leu Pro Arg Thr
305                 310                 315                 320
Leu Asn Val Arg Lys Trp Tyr Glu Lys Met Gly Lys Gly Gly Leu Asn
                325                 330                 335
Leu Gly Gly Ser Phe Gln Thr Leu Glu Thr Met Thr Thr Ser Thr Ser
            340                 345                 350
Glu Gln Arg Ala Val Gly Lys Val Val Asn Gly Arg Gln Gly Asp Glu
        355                 360                 365
Ala Asn Tyr His Ile His Pro Thr Val Leu Asp Ala Thr Leu Gln Ile
    370                 375                 380
Leu Gly Ala Ala Ala Val Lys Gly Tyr Ala Arg Lys Thr Lys Thr Trp
385                 390                 395                 400
Leu Pro Thr Ser Ile Asp Lys Phe Thr Val His Arg Cys Ala Ser Asp
                405                 410                 415
Met Val Thr Ser Val Ser Ala Gln Leu Ser Ser Asn Phe Ser Val Val
            420                 425                 430
Gly Asp Gly Arg Cys Thr Ser Gly Gly Thr Thr Val Val Asp Ala Val
        435                 440                 445
Gly Ile Arg Met Ser Leu Ala Asp Gly Ala Gly Ala Ala Asp Ile Ser
    450                 455                 460
Asp Thr His Ala Ala Ser Arg Cys Glu Trp Arg Pro Asp Ile Asp Phe
465                 470                 475                 480
Leu Asp Val His Glu Leu Phe Arg Ser Pro Ala Asn Arg Thr Asp His
                485                 490                 495
Leu Arg Leu Leu Glu Glu Leu Gly Asp Ile Cys Leu Leu Leu Ser Gln
            500                 505                 510
Trp His Phe Ser Glu Ala Ser Asn Pro Ile Pro Pro His Leu Gln Gln
        515                 520                 525
Tyr Met Ala Trp Val Gly Ser Gln Ser Gly Ala Ile Ala Phe Arg Leu
```

```
    530                 535                 540
Pro Ser Thr Trp Thr Gly Leu Asp His Glu Ala Ile Ser Asp Arg Ile
545                 550                 555                 560
Asp Ser Ile Leu Ser Gln Leu Ala Asp Thr Pro Ala Ala Pro Val Ala
                565                 570                 575
Asn Ala Ile His Gln Val Cys Val Asn Met Glu Ser Leu Leu Ser Gly
            580                 585                 590
Glu Ser Leu Asp Ser Ile Leu Pro Gly Glu Thr Leu Thr His Val His
        595                 600                 605
Glu Phe Leu Gly Gln Val Asp Arg Arg Glu Phe Ile Gln Leu Leu Ser
    610                 615                 620
His Ser Lys Pro Asn Leu Arg Ile Leu Glu Ile Gly Thr Gly Asn Gly
625                 630                 635                 640
Val Ser Leu His Arg Asp Ile Leu Ala Glu Leu Thr Arg Pro Asp Gly
                645                 650                 655
Glu Ile Leu Cys Ala Lys Tyr Thr Leu Thr Ala Pro Gly Tyr Val Val
            660                 665                 670
Ala Thr Thr Gln Glu Lys Ile Phe Pro Asn Met Gln Phe Ala Ser Leu
        675                 680                 685
Asp Ile Ser Gln Asp Pro Phe Glu Gln Gly Phe Glu Asp Val Gly Tyr
    690                 695                 700
Asp Leu Ile Ile Ala Val Asn Ala Leu Arg Glu Cys Lys Asn Thr Glu
705                 710                 715                 720
Glu Ser Leu Ala Asn Leu Arg Lys Leu Leu Ser Ser Asp Gly Arg Leu
                725                 730                 735
Leu Leu Gln Glu Leu Cys Pro Ser Ser Arg Trp Ile Arg Tyr Val Leu
            740                 745                 750
Gly Val Leu Pro Thr Trp Trp Ala Gly Pro Ala Asp Glu Pro Ile Glu
        755                 760                 765
Thr Pro Tyr Leu Ser Gln Glu Glu Trp Gln Thr Thr Leu Ala Ala Ala
    770                 775                 780
Gly Phe Gly Asp Ile Glu Ala Val Ala Leu Asp Ser Glu Glu Pro His
785                 790                 795                 800
Gln Val Thr Thr Thr Met Val Val Arg Gln Ala Arg Glu Ala Pro Met
                805                 810                 815
Lys Lys Val Thr Val Leu Val Glu Glu Glu Gly Pro Ala Val Thr His
            820                 825                 830
Ile Val Ser Glu Leu Glu Lys Glu Gly Tyr Glu Val Thr Arg Cys Arg
        835                 840                 845
Leu Glu Asp Asp Pro Pro Ala Gly Gln Asp Val Met Ser Leu Leu Asp
    850                 855                 860
Ile Glu Gln Pro Phe Phe His Gly Ile Asp Glu Ala Arg Phe Leu Leu
865                 870                 875                 880
Phe Lys Ser Phe Leu Leu Gly Leu Gln Asp Arg Asn Ala Gly Met Leu
                885                 890                 895
Trp Thr Thr His Leu Ile Asp Ile Gly Cys Arg Asp Pro Arg Tyr Gly
            900                 905                 910
Gln Val Leu Gly Leu Ala Arg Thr Ile Arg Thr Glu Gln Leu Ala Asp
        915                 920                 925
Leu Gly Thr Cys Gln Ile Asp Ser Phe Asp Ser Ser Ala Ser Ile Arg
    930                 935                 940
Gly Leu Leu Arg Leu Phe Ala Lys Phe Gln Thr Arg Gln Gly Asp Glu
945                 950                 955                 960
Glu Leu Asn Pro Asp Phe Glu Trp Ala Ile Val Asn Gly Gln Val Gln
                965                 970                 975
Val Ala Arg Phe His Pro Phe Ile Leu Ala Asp Glu Leu Leu Val Ser
```

```
            980                 985                 990
Glu Asp Ser Lys Asn Glu Met Ala Thr Leu Asn Val Arg Thr Pro Gly
        995                 1000                1005
Arg Val Asn Ser Leu His Tyr Ala Arg His Glu Arg Lys Asp Leu Glu
    1010                1015                1020
Lys Asp Glu Val Glu Val Glu Val Tyr Cys Ala Gly Leu Asn Phe Arg
1025                1030                1035                1040
Val Ser His Ser Tyr Leu Pro Arg Val Ser Val Met Leu Leu Thr Glu
                1045                1050                1055
Pro Ser Arg Ile Ser Trp Ser His Trp Ala Leu Ser Asn Cys Arg Cys
            1060                1065                1070
Val Ser Ser Glu Ser Lys Leu Gln Ala Ser Ser His Ala Trp Ala Gln
        1075                1080                1085
Met Ser Ala Pro Thr Thr Ser Arg
    1090                1095
```

<210> 37200
<211> 204
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (174)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37200

```
Gln Asp Thr Tyr Asn Asp Val His Glu Ala Cys Arg Pro Leu Gly Leu
1               5                   10                  15
Gly Arg Val Val Leu Ala Asp Arg Thr Ala Asp His Glu Pro Arg Val
            20                  25                  30
Phe Leu Gly Pro Arg Gln Ala Ser Ile Glu Asp Phe Ser Ser Asp Val
        35                  40                  45
Val Lys Ile Tyr Ile Asp Ile Leu Arg Arg Arg Leu Leu Gln Leu Leu
    50                  55                  60
Leu Pro Ala Leu Ile Leu Val Val Asp Arg Arg Ile Glu Pro Lys Leu
65                  70                  75                  80
Leu Asp Gln Glu Leu Ala Leu Val Ser Thr Ala Arg Asn Ala Asp Asn
                85                  90                  95
Pro Leu Gly Ser Leu Asp Leu Gly Asp Leu Pro Gly Asp His Ala Gly
            100                 105                 110
Arg Ala Gly Arg Thr Arg His Asn Asp Gly Val Ala Gly Leu Arg Leu
        115                 120                 125
Ser Asp Leu Asp His Ala Lys Val Gly Arg Gln Pro Arg His Ala Gln
    130                 135                 140
His Arg His Gly Ile Gly Gly Ala Ala Ala Gly Lys Glu Arg Pro Leu
145                 150                 155                 160
Leu Gly Leu Leu Gly Pro Gln Gln Thr Ile Phe Leu Pro Xaa Arg Ser
                165                 170                 175
Thr Arg Arg Pro Ser Arg Arg Thr Cys Ile Gly Ile Val Ile Arg Phe
            180                 185                 190
Pro Thr Arg Ser Pro Val Arg Cys Ser Gly Arg Pro
        195                 200
```

<210> 37201
<211> 283

<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (38),(91)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37201
Asn Pro Ile Tyr Asn Met Ser Thr Thr His Thr Leu Tyr Gln Ser Ser
1 5 10 15
Thr Gly Gly Tyr Asn Gln Asp Pro Asn Ser Thr Thr His Ile Gly Thr
20 25 30
Asn Val Asn Thr Ala Xaa Ser Thr Thr Asp Pro Phe Thr Gly His Ala
35 40 45
Ser Gln Ser Ala Gly Pro His Thr Ser Asn Val Ala Asn Thr Ile Asp
50 55 60
Pro Arg Val Asp Ser Asp Leu Asn Asn Arg Ala Gln Tyr Ala Pro Gly
65 70 75 80
Thr Ala Ala Ser Gly Asn Val His Pro Arg Xaa Thr Gln Ser Tyr Asn
85 90 95
Asn Pro Asn Ser Ser Asn Ala Gly Pro His Ser Ser Ser Val Met Asn
100 105 110
Lys Leu Asp Pro Arg Val Asp Ser Gln Thr Gly Asn Thr Thr Thr Lys
115 120 125
Thr Thr Asn Glu Thr Gly Thr Gly Ala Ser Arg Asn Pro Thr Asp Thr
130 135 140
Ser Gly Ala Gly Ala Gly Val Arg Gln Gly Ser Ser Thr Thr Ser Val
145 150 155 160
Gly Thr Pro Gly Val Glu Asp Asn Arg Ser Arg Tyr Asp Pro Asn Val
165 170 175
Ser Arg His Asn Pro Ala Thr Gly Ser Gly Tyr Ala Thr Ala Gly Gly
180 185 190
Val Gly His Gln Pro Ala Pro Gly Ser Ser Ser Tyr Asp Lys Gln Asp
195 200 205
Tyr Arg Ala Glu Tyr Ala Pro Ser Thr Glu Asn Lys His Tyr Thr Ala
210 215 220
Asp Ala Gln Gly Arg Ser Ala Ala Lys Gly Glu Glu Ile Gly Arg Gly
225 230 235 240
Val Lys Ser Ala Ile Ala Gly Ile His Val Ser Arg Ser Ala Thr Phe
245 250 255
Phe Asp Pro Arg Arg Arg Val Leu Thr Arg Ala Leu Thr Gly Cys Trp
260 265 270
Gly Val Val Ala Gly Gly Asn Asp Cys Ser Cys
275 280

<210> 37202
<211> 110
<212> PRT
<213> A.fumigatus

<400> 37202
Thr Asp Asn Arg Lys Pro Ile Cys Glu Ala Ser Leu His Leu Ser Leu
1 5 10 15
His Gly Phe His Ser Cys Ile Ala Phe Pro Ser Ile Phe Phe Ile Phe
20 25 30

```
Gly Arg Ser Arg Tyr Ile Thr Lys Met Pro Ile Ser Asn Arg Gln Leu
        35                  40                  45
Ile Tyr Ala Asn Thr Pro Ser Pro Ala Ile Asp Pro Ser Leu Thr Asn
    50                  55                  60
Gly Thr Phe Lys Leu Asn Thr Thr Ser Leu Pro Asp Gln Ile Pro Asn
65                  70                  75                  80
Asp Lys Val Leu Val Arg Val His Tyr Leu Ser Leu Asp Pro Gly His
                85                  90                  95
Ala Pro Val Ala His Ser Lys Thr Val Val His Cys Tyr Pro
            100                 105                 110
```

<210> 37203
<211> 198
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (22)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37203

```
Ser Arg Arg Glu Ala Asp Tyr Asn Pro Asn Thr Arg Ser Ala Thr Gly
1               5                   10                  15
Ser Ser Arg Thr Pro Xaa Trp Gln Glu Tyr Cys Leu Leu Gly Pro Lys
            20                  25                  30
Glu Pro Gln Lys Trp Pro Phe Leu Pro Gly Cys Ser Pro Thr Asp Ala
        35                  40                  45
Met Ser Val Leu Gly Met Thr Gly Leu Thr Ala Tyr Phe Gly Met Ile
    50                  55                  60
Glu Ile Gly Gln Pro Lys Pro Gly Asp Thr Val Val Val Ser Gly Ala
65                  70                  75                  80
Ala Gly Ala Thr Gly Met Val Ala Gly Gln Ile Ala Lys Val Lys Gly
                85                  90                  95
Ala Lys Arg Val Val Gly Ile Ala Gly Ser Ala Asp Lys Cys Glu Phe
            100                 105                 110
Leu Val Lys Glu Leu Gly Phe Asp Ala Ala Ile Asn Tyr Lys Asp Lys
        115                 120                 125
Gly Trp Lys Lys Gln Leu Lys Glu Ala Thr Pro Glu Tyr Ile Asp Val
    130                 135                 140
Tyr Phe Asp Asn Val Gly Gly Glu Ile Leu Asp Ala Cys Leu Ala Arg
145                 150                 155                 160
Ala Gln Lys Asp Ser Arg Phe Val Ile Cys Gly Ala Ile Ser Gln Tyr
                165                 170                 175
Asn Ser Ala Lys Pro Gln Gly Pro Ala Ser Phe Met Asn Val Ile Val
            180                 185                 190
Ser Val Leu Leu Gly Met
        195
```

<210> 37204
<211> 89
<212> PRT
<213> A.fumigatus

<400> 37204

```
Ser Ile Ala Asp Ser Val Leu Gln Ser Gln Arg Ile Thr Met Lys Gly
```

```
1               5                   10                  15
Phe Ile Val Phe Asp Phe Ala Lys Lys Tyr Asp Ile Ala Leu Lys Asp
            20                  25                  30
Leu Ser Thr Trp Leu Thr Gln Gly Lys Ile Lys Arg Lys Glu His Ile
        35                  40                  45
Ile Arg Gly Gly Leu Glu Ala Ala Pro Gln Gly Leu Val Ser Leu Tyr
    50                  55                  60
Glu Gly Ala Asn Thr Gly Lys Met Met Val Glu Val Ala Pro Val Ser
65                  70                  75                  80
Glu Ala Ile Gly Ala Lys Ala Lys Leu
                85
```

<210> 37205
<211> 183
<212> PRT
<213> A.fumigatus

<400> 37205

```
Ala Ile Val Ile Phe Ala Ala Ser Leu Lys Gly Ile Val Ile Val Pro
1               5                   10                  15
Ala Tyr Pro Asp Arg Ala Ser Ile His Leu Pro Arg Pro Arg Leu Pro
            20                  25                  30
Thr Pro His Gln Pro Cys Leu Pro Ser Pro Arg Pro Arg Ile Pro Ser
        35                  40                  45
Leu Pro Pro Pro Thr Pro Gly Leu Asp Val Asp Gly Pro Phe His Ser
    50                  55                  60
Ser Gly Leu Arg Pro Pro Leu Pro His Pro His Leu Leu Leu Leu His
65                  70                  75                  80
His Leu Gly Arg Pro His Pro Ser Ser Ala Pro Ala Gly Gly Gln Arg
                85                  90                  95
Leu Pro Ala Arg Lys Glu Lys Thr Ala Arg Leu Ala Gln Gln His Gln
            100                 105                 110
Gly Gly Trp Glu Arg Pro Gln Thr Ser Arg Gln Ala Gln Met Lys Asp
        115                 120                 125
Ala Ile Ala Gly Tyr Ser Gly Tyr Ser Ala Thr Gly Ala Ser Gly Ile
    130                 135                 140
Val Phe Glu Gln Ile His Gly Pro Val Ala Ile Cys Leu Phe Val Ala
145                 150                 155                 160
Val Gly Val Arg Arg Ser Leu Phe Leu Glu Leu Ala Arg Gly Val Phe
                165                 170                 175
Gly Gly Asp Gly Glu Ala Leu
            180
```

<210> 37206
<211> 94
<212> PRT
<213> A.fumigatus

<400> 37206

```
Val Phe Cys Ile Ala Pro Ser Pro Ile Gly Leu Lys Trp Ile Pro Lys
1               5                   10                  15
Asp Leu Arg Pro Ser Leu Ser Gly Val Gly Ala Arg Gly Ala Ser Thr
            20                  25                  30
Pro Pro Tyr Phe Glu Gly Ile Phe Gln Leu His Ser Ser Ala Ile Val
        35                  40                  45
Leu Gln Phe Pro Gln Leu Gln Leu Phe Ser Ser Asp Cys Ile Phe Thr
```

```
    50                  55                  60
Met Pro Ser Tyr Asn Ile Val Val Phe Ala Gly Asp His Cys Gly Pro
65                  70                  75                  80
Glu Val Ser Ser Gly Ser Thr Ala Gly Ile Ser Cys Val Gly
                85                  90
```

<210> 37207
<211> 256
<212> PRT
<213> A.fumigatus

<400> 37207

```
Arg Arg Lys Glu Arg Arg Cys Arg Phe Ser Trp Cys His Trp Gly Ser
1               5                   10                  15
Gly Arg Gly Thr Leu Ser His Ile His Leu Arg Asn Pro Lys Val Thr
            20                  25                  30
Gln Pro Met Glu Leu Gly Lys Trp Ala Val Arg Pro Gly Lys Gly Leu
        35                  40                  45
Leu Arg Leu Ala Gln Glu Glu Gly Lys Ile Gly Tyr Leu Arg Pro Cys
    50                  55                  60
Asn Phe Ala Ala Pro Ser Leu Val Asp Gly Ser Pro Leu Arg Pro Glu
65                  70                  75                  80
Val Cys Arg Gly Val Asp Phe Asn Ile Ile Arg Glu Leu Thr Gly Gly
                85                  90                  95
Ile Tyr Phe Gly Asp Arg Lys Glu Asp Asp Gly Ser Gly Phe Ala Met
            100                 105                 110
Asp Thr Glu Pro Tyr Ser Arg Ala Glu Ile Glu Arg Ile Thr Arg Leu
        115                 120                 125
Ala Ala His Leu Ala Leu Gln His Asn Pro Pro Leu Pro Val Trp Ser
    130                 135                 140
Leu Asp Lys Ala Asn Val Leu Ala Thr Ser Arg Leu Trp Arg Lys Thr
145                 150                 155                 160
Val Thr Glu Val Met Ala Lys Glu Phe Pro Gln Leu Lys Val Glu His
                165                 170                 175
Gln Leu Ile Asp Ser Ala Ala Met Ile Met Val Lys Glu Pro Arg Lys
            180                 185                 190
Leu Asn Gly Ile Val Val Thr Ser Asn Leu Phe Gly Asp Ile Ile Ser
        195                 200                 205
Asp Glu Ala Ser Val Ile Pro Gly Ser Leu Gly Leu Leu Pro Ser Ala
    210                 215                 220
Ser Leu Ser Gly Ile Pro Asp Gly Lys Thr Lys Val Asn Gly Ile Tyr
225                 230                 235                 240
Glu Pro Ile His Gly Thr Phe Ser Pro Cys Cys Leu Gln Leu Ala Ile
                245                 250                 255
```

<210> 37208
<211> 85
<212> PRT
<213> A.fumigatus

<400> 37208

```
Val Cys Ala Asp Val Lys Thr Gly Ser Ala Pro Asp Ile Ala Gly Lys
1               5                   10                  15
Gly Ile Val Asn Pro Val Ala Ala Ile Leu Ser Val Ala Met Met Met
            20                  25                  30
Gln Tyr Ser Leu Asn Arg Met Asp Asp Ala Arg Ala Ile Glu Thr Ala
```

```
        35                  40                  45
Val Arg Asn Val Ile Glu Ala Gly Ile Arg Thr Ala Asp Ile Gly Gly
    50                  55                  60
Lys Ser Thr Thr Ser Glu Val Gly Asp Ala Val Ala Ala Glu Leu Glu
65                  70                  75                  80
Lys Leu Leu Lys Gln
                85
```

<210> 37209
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37209

```
His Pro Leu Gln Arg Gly Glu Glu Met Gly Gly Phe Gln Leu Gly Ser
1               5                   10                  15
Ser Ile Val Leu Val Phe Glu Ala Pro Met Gly Thr Arg Lys Ser Phe
            20                  25                  30
Asp Ile Gly Trp Glu Gly Gly Lys Arg Glu Gly Gly Trp Asn Trp Thr
        35                  40                  45
Ile Glu Lys Gly Gln Arg Ile Lys Met Gly Gln Lys Leu Gly Tyr Val
    50                  55                  60
Asp Ile Gln Glu
65
```

<210> 37210
<211> 225
<212> PRT
<213> A.fumigatus

<400> 37210

```
His Gln His Arg Asp Ser Ile Val Arg Arg Arg Asp Lys Ile Lys Lys
1               5                   10                  15
Pro Glu Glu Ile Pro Arg Arg Gly Lys Cys Ser Val Gln Val Leu Gln
            20                  25                  30
His Glu His Leu Arg Cys Leu Asp Lys Arg Lys Thr His Ala Asp Tyr
        35                  40                  45
Leu Asp Phe Pro Gln Ser Leu Thr Met Pro Arg His His Leu Arg Arg
    50                  55                  60
His Pro Ala Pro Val Pro Glu Thr Asn Ser Asp Glu Pro Pro Gln Gln
65                  70                  75                  80
Gln Thr Ser Arg Ser Arg Leu Gly His Gly Ser Ala Gln Thr Gln Phe
                85                  90                  95
Gln Thr Pro Pro Ser Arg Asn Ile Pro Asn Ile Pro Gln Leu His Pro
            100                 105                 110
Ser Ser Gly Pro Val Glu Met Ser Ala Ala Ala Pro Thr His Pro Gly
        115                 120                 125
Ala Ala Ala Gln Gly Ala Leu Phe Ser Leu Phe Gly Arg Gly Val Ser
    130                 135                 140
Gly Arg Gln Arg Gly Gln Met Met Asp Glu Asp Asp Gln Asp Asp Glu
145                 150                 155                 160
Glu Glu Glu Asp Val Gly Glu Glu Glu Glu Asp Val Asp Gln Ser Tyr
                165                 170                 175
Glu Met Asp His Arg Arg Leu Asp Leu Glu Leu Glu Glu Gly Glu Arg
            180                 185                 190
Glu Phe Ser Ala Glu Glu Met Glu Gly Met Ala Gly Glu Glu Leu Glu
```

```
        195                 200                 205
Gly Glu Asp Glu Glu Asp Glu Leu Met Arg Asp Arg Gly Lys Leu Ala
    210                 215                 220
Gln
225

<210> 37211
<211> 297
<212> PRT
<213> A.fumigatus

<400> 37211
Gln Leu Leu Ile Tyr Ser Ala Asp Arg Ser Pro Ser Pro Leu Pro Ser
1               5                   10                  15
Asn Leu Arg Glu Ile Ser Ser Leu Ala Ser Trp Thr Val Ser Thr His
            20                  25                  30
Lys Pro Gly Cys Gly Val Ala Ala Leu Arg His Pro Ser Pro Thr Gln
        35                  40                  45
Tyr Trp Gln Ser Asp Gly Pro Gln Pro Asp Met Leu Thr Leu His Phe
    50                  55                  60
Phe Lys Leu Val Ala Val Val Lys Ile Arg Val Tyr Leu Asp Phe Glu
65                  70                  75                  80
Met Asp Glu Ser Tyr Thr Pro Thr Lys Met Val Phe Leu Ala Gly Met
                85                  90                  95
Gly Gly Asn Asp Leu Val Glu Phe Ala Thr Trp Glu Gly Glu Gly Pro
            100                 105                 110
Cys Gly Trp Val Asp Ile Pro Leu Glu Gly Val Gly Gly Arg Asp Gly
        115                 120                 125
Gly Trp Val Arg Arg Arg Arg Arg Lys Arg Thr Arg Ala Arg Pro Gln
    130                 135                 140
Asp Gly Lys Gly Lys Gly Lys Gly Lys Gly Lys Ser Lys Gly Val Ala
145                 150                 155                 160
Trp Pro Asp Tyr Met Phe Ser Asp Ser Glu Asn Pro Val Glu Tyr Asp
                165                 170                 175
Glu Ala Ala Tyr Asp Tyr Asp Asp Gly Glu Ser Thr Ser Glu Asp Asp
            180                 185                 190
Glu Asp Asp Pro Tyr Ala Gly Asn Val Leu Lys Ala Met Val Ile Gln
        195                 200                 205
Met Arg Val Thr Glu Asn His Gln Asn Gly Lys Asp Thr His Val Arg
    210                 215                 220
Gly Phe Gln Val Phe Ala Arg Asp Asp Asp Arg Arg Arg Met Gly Asn
225                 230                 235                 240
Ala Pro Ser Ala Ser Ala Asp Gly Arg Thr Arg Arg His Ser Ala Arg
                245                 250                 255
Arg Ser Leu Arg Gly Ser Leu Asn Asp Gly Gly Ala Glu Gly Arg Asn
            260                 265                 270
Pro Asn Gly Asp Ala Asp Gly Val Arg Val Gly Gly Leu Glu Glu Pro
        275                 280                 285
Asp Trp Met Gly Glu Pro Val Ile Arg
    290                 295

<210> 37212
<211> 178
<212> PRT
<213> A.fumigatus
```

<400> 37212
Asp Thr His Phe Leu Pro Phe Leu Tyr Ser Thr Ile Trp Ser Glu Arg
1 5 10 15
Ala Ala Gly Ala Thr Gly Cys Tyr Arg Gln Ser Arg Ala Asn Gly Leu
20 25 30
Asn Ile Leu Ile Ile Asn Lys Val Ser Ser His Ile Tyr Phe Lys Phe
35 40 45
Ala Gln Val Ile Ser His Trp Thr Ser His Gly Thr Glu Ile Ala Arg
50 55 60
Ala Thr Arg Lys Pro Pro Gln Lys Asn Leu Leu Leu His Ile His Tyr
65 70 75 80
Cys Phe Asn Ser Phe Ser Ser Ser Ala Ala Thr Ala Ser Pro Thr Ser
85 90 95
Leu Val Val Asp Leu Pro Pro Ile Ser Ala Val Arg Ile Pro Ala Ser
100 105 110
Ile Thr Leu Arg Thr Ala Val Ser Met Ala Leu Ala Ser Ser Ile Arg
115 120 125
Phe Arg Glu Tyr Cys Ile Ile Met Ala Thr Glu Arg Met Ala Ala Thr
130 135 140
Gly Leu Thr Met Pro Leu Pro Ala Met Ser Gly Ala Glu Pro Val Phe
145 150 155 160
Thr Ser Ala His Thr Gln Ile Ala Ser Cys Arg Gln Gln Gly Glu Asn
165 170 175
Val Pro

<210> 37213
<211> 141
<212> PRT
<213> A.fumigatus

<400> 37213
Ile Pro Leu Thr Leu Val Phe Pro Ser Gly Met Pro Leu Lys Leu Ala
1 5 10 15
Leu Gly Lys Ser Pro Arg Glu Pro Gly Ile Thr Leu Ala Ser Ser Leu
20 25 30
Met Met Ser Pro Asn Arg Leu Leu Val Thr Thr Ile Pro Leu Ser Phe
35 40 45
Leu Gly Ser Leu Thr Met Ile Met Ala Ala Glu Ser Met Ser Trp Cys
50 55 60
Ser Thr Leu Ser Trp Gly Asn Ser Leu Ala Met Thr Ser Val Thr Val
65 70 75 80
Phe Arg His Ser Arg Leu Val Ala Arg Thr Leu Ala Leu Ser Lys Leu
85 90 95
His Thr Gly Arg Gly Gly Leu Cys Cys Arg Ala Arg Trp Ala Ala Arg
100 105 110
Arg Val Met Arg Ser Ile Ser Ala Arg Glu Tyr Gly Ser Val Ser Met
115 120 125
Ala Lys Pro Leu Pro Ser Ser Ser Leu Arg Ser Pro Lys
130 135 140

<210> 37214
<211> 80
<212> PRT
<213> A.fumigatus

<400> 37214
Arg Met Ile Phe Phe His His Cys Ser Arg Gln Ser Ile Lys Lys Tyr
1 5 10 15
Val Leu Ala Asn Asn Lys Ile Ala Phe Ala Ser Gln Ala Ala Phe Asp
20 25 30
Ser Gln Phe Asn Lys Ala Ile Lys Ala Gly Val Glu Lys Gly Glu Phe
35 40 45
Thr Gln Pro Lys Gly Lys Ser Leu Leu Pro Arg Met Phe Phe Phe Cys
50 55 60
Gly Ile Ile Ala Leu Thr Arg Leu Lys Phe Gln Val Leu Pro Val Leu
65 70 75 80

<210> 37215
<211> 79
<212> PRT
<213> A.fumigatus

<400> 37215
Leu Ile Cys Phe Thr Gln Lys Ala Thr Thr Ala Thr Lys Ala Ala Ala
1 5 10 15
Pro Lys Lys Ala Ala Ala Lys Lys Thr Glu Lys Ala Glu Lys Pro Ala
20 25 30
Ala Lys Ala Thr Thr Lys Lys Ala Gly Thr Thr Thr Lys Lys Ala Ala
35 40 45
Gly Arg Pro Lys Ala Asn Thr Ala Lys Pro Arg Lys Ala Ser Thr Ala
50 55 60
Val Cys Asp Arg Tyr Arg Cys Cys Phe Ser Ile Phe Gly Gly Cys
65 70 75

<210> 37216
<211> 63
<212> PRT
<213> A.fumigatus

<400> 37216
Pro Leu Ser Leu Leu Leu Leu Asp Phe Arg Trp Met Leu Ile Arg Lys
1 5 10 15
Gln Ala Pro Ala Val Val Asp Gln Pro Lys Val Leu Ser Thr Thr Lys
20 25 30
Ser Gly Arg Val Thr Lys Thr Thr Ala Lys Pro Ala Glu Lys Ala Ala
35 40 45
Lys Lys Lys Ala Thr Thr Thr Lys Lys Ala Glu Lys Ser Glu Ala
50 55 60

<210> 37217
<211> 325
<212> PRT
<213> A.fumigatus

<400> 37217
Arg Tyr Ala Tyr Arg Tyr Pro Asn Arg Pro Arg Asn His Ser Pro Thr
1 5 10 15
Leu Pro Phe His Glu Leu Phe Gln Thr Leu Phe Asn Pro Leu Gly Glu
20 25 30
Ile Lys Lys Lys Pro Ala Gly Ala Val Ala Ala Arg Arg Lys Val Gly
35 40 45

```
Pro His Gly Gln Ser Ala Ala Asn Leu Asn Pro Leu Glu Arg Arg Arg
    50                  55                  60
Asp Val Ile Glu Arg Phe Ile Ser Arg Trp Arg Lys Glu Val Gly Asp
65                  70                  75                  80
Asp Ile Tyr Pro Ala Phe Arg Leu Ile Leu Pro Asp Lys Asp Arg Asp
                85                  90                  95
Arg Ala Met Tyr Gly Ile Lys Glu Lys Ala Ile Gly Lys Met Leu Val
            100                 105                 110
Lys Ile Met Lys Ile Asp Lys Asn Ser Glu Asp Gly Phe Asn Leu Leu
        115                 120                 125
Asn Trp Lys Leu Pro Gly Gln Ala Ala Thr Ser Arg Met Thr Gly Asp
    130                 135                 140
Phe Ala Gly Arg Cys Phe Asp Val Ile Ser Lys Arg Pro Met Arg Thr
145                 150                 155                 160
Asp Val Gly Asp Met Leu Ile Glu Glu Val Asn Glu Lys Leu Asp Lys
                165                 170                 175
Leu Ser Ala Ala Ser Lys Glu Glu Gln Gln Leu Pro Ile Leu Ala Glu
            180                 185                 190
Phe Tyr Arg Arg Met Asn Pro Glu Glu Leu Met Trp Leu Ile Arg Ile
        195                 200                 205
Ile Leu Arg Gln Met Lys Val Gly Ala Thr Glu Arg Thr Phe Phe Asp
    210                 215                 220
Val Trp His Pro Asp Ala Glu Asn Leu Tyr Ser Ile Ser Ser Ser Leu
225                 230                 235                 240
Arg Arg Val Cys Trp Glu Leu His Asp Pro Asn Ile Arg Leu Asp Ala
                245                 250                 255
Glu Asp Arg Gly Ile Ser Leu Met Gln Cys Phe Gln Pro Gln Leu Ala
            260                 265                 270
Gln Phe Gln Met Asp Ser Leu Asp Arg Met Val Ala Arg Met Arg Pro
        275                 280                 285
Thr Glu Glu Asp Pro Val Phe Trp Ile Glu Glu Lys Leu Asp Gly Glu
    290                 295                 300
Arg Met Gln Leu His Met Ala Ser Asp Asp Ser Val Ser Ser Pro Arg
305                 310                 315                 320
Ser Gly Asp Pro Arg
                325
```

<210> 37218
<211> 377
<212> PRT
<213> A.fumigatus

<400> 37218

```
Leu Leu Asp Cys Ser Leu Ala Tyr Tyr Phe Asp Asn Arg Pro Leu Leu
1               5                   10                  15
Ser Ser Asp Asp Gly Gln Cys Pro Leu Pro Ser His Glu Asn Leu Trp
            20                  25                  30
Asn Ala Gln Ser Ala Glu Ala Trp Arg Asp Val Leu Glu Arg Thr Ser
        35                  40                  45
Gly Lys Phe Gly Pro Gly Lys Arg Lys Phe Ser Thr Lys Thr Ser Ile
    50                  55                  60
Ser Gly Ser Arg Gly Ile Ser Leu Tyr Lys Ala Val Leu Thr Ile Tyr
65                  70                  75                  80
Ile Glu Lys Lys Leu Val Pro Gly Ile Gly Glu Phe Ser His Val Leu
                85                  90                  95
Leu Ile His Ala Leu Tyr His Arg Met Trp Glu Val Gly Asp Tyr Phe
```

```
            100                 105                 110
Arg Arg Pro Leu Ser Phe Trp Asn Pro Thr Ala Lys Lys Gln Thr Leu
        115                 120                 125
Asp Thr Ala Ile Pro Ser Gly Ser Val Trp Leu Pro Gly Ile Pro Ser
    130                 135                 140
Tyr Ser Lys Trp Arg Asn Ser Ala Cys Asp Cys Leu Asp Ile Leu His
145                 150                 155                 160
Trp Thr Ala Asn Ser Thr Ile Ala Lys Ala Ala Gly Leu Glu His Pro
                165                 170                 175
Thr Val Leu His Leu His Ala Ala Arg Ile Val Leu Leu Ala Pro Phe
            180                 185                 190
Arg Glu Ile Arg Ser Leu Ala Thr Ser Leu Ala Met Gly Lys Ile Arg
        195                 200                 205
Trp Ser Asp His Gln Gln Ala Leu Glu Trp His Tyr Ile Leu Arg Trp
    210                 215                 220
Ile Lys His Asp Gln Tyr Lys Ala Arg Leu Ala Ile Ile His Ala Gly
225                 230                 235                 240
Thr Thr Leu Trp His Val Arg Arg Tyr Ser Thr Asn Ala Phe His Glu
                245                 250                 255
Pro Val Ala Val Tyr Leu Ser Ile Leu Thr Leu Trp Ala Tyr Gly Ser
            260                 265                 270
Cys His Ala Gln Ile Ala Glu Glu Pro Ser Ser Arg His Gly Leu Arg
        275                 280                 285
His His Pro Val Arg Glu Pro Thr Phe Ile His Leu Asp Arg Pro Cys
    290                 295                 300
Asp Asp Glu Leu Val Gln Leu Phe Val Arg Glu Gly His Ala Met Gln
305                 310                 315                 320
Gly Asn Val Thr Gly Val Gly Asp Ile Cys Ala Pro His Gly Pro Glu
                325                 330                 335
Arg Ile Leu Glu Val Gly Cys Glu Thr Leu Ala Gly Leu Thr Ser Trp
            340                 345                 350
Gly Ile Ser Lys Arg Phe Ile Ala Ile Leu Thr Lys Leu Ala Glu Leu
        355                 360                 365
Ser Ser Gln Pro Gln Ala Pro Arg Asn
    370                 375

<210> 37219
<211> 74
<212> PRT
<213> A.fumigatus

<400> 37219
His Tyr Ile Thr Cys Val Tyr Cys Pro Glu Glu Trp His Asn Ser Asp
1               5                   10                  15
Asn Ile Val Phe Asp Arg Thr Tyr Ser His Gln Ala Leu Tyr Thr Leu
            20                  25                  30
Leu Thr Pro Tyr Lys Val Ile Thr Asn Ser Gln Ser Ser Pro Lys Ser
        35                  40                  45
Lys Tyr Glu Phe Arg Gly Val Cys His Asn Ile Ser Phe Ser Glu Pro
    50                  55                  60
Val Ala Ala Arg Ile Ala Pro Arg Ala Ser
65                  70

<210> 37220
<211> 97
<212> PRT
```

<213> A.fumigatus

<400> 37220

```
Phe Lys Tyr Leu Val Met Pro Phe Arg Leu Thr Asn Val Leu Ala Ile
1               5                  10                  15
Phe Gln Ala Tyr Ile Asn Lys Met Met Gln Gly Ile Leu Asp Lys Phe
            20                  25                  30
Tyr Val Thr Tyr Leu Asp Asn Ile Leu Ile Tyr Leu Gln Thr Glu Glu
        35                  40                  45
Glu Tyr Lys Gln Tyr Ile Lys Glu Val Leu Gln Cys Leu Asn Ser Ala
    50                  55                  60
Asn Leu Tyr Ala Lys Leu Leu Lys Tyr Lys Phe Tyr Lys Ile Glu Val
65                  70                  75                  80
Lys Phe Leu Ser Phe Leu Ile Gly Gln Glu Gly Val Trp Val Asp Pro
                85                  90                  95
Ile
```

<210> 37221
<211> 196
<212> PRT
<213> A.fumigatus

<400> 37221

```
Arg Val Glu Ala Asn Gly Pro Ser Leu Pro Asn Ile Lys Ser Gly Gly
1               5                  10                  15
Phe Arg Leu Phe Ile Leu Arg Lys Glu Ala Leu Lys Ile Leu Gly Thr
            20                  25                  30
Gln Pro Thr Tyr Lys Tyr Met Phe Ala Val Ser Asp Ala Val His Glu
        35                  40                  45
Ala Pro Val Tyr Val Ala Ala Gln Asn Lys Leu Tyr Leu Ser Gln Leu
    50                  55                  60
Ala Pro Pro Ala Gly Tyr Leu Pro Gln Leu Val Val Asp Leu Asn Gln
65                  70                  75                  80
Asp Pro Pro Thr Leu Ser Glu Phe Leu Ser Asp Pro Pro Val Tyr Ala
                85                  90                  95
Pro Asn Gly Gly Thr Phe Tyr Asn Gly Arg Val Ile Trp Gly Ala Ser
            100                 105                 110
Gly Gly Asn Arg Ser Ile Gly Gly Thr Glu Gln Arg Pro Gly Leu Arg
        115                 120                 125
Thr Leu Asp Pro Glu Thr Asn Lys Ser Val Ile Leu Leu Asn Asn Tyr
    130                 135                 140
Tyr Gly Tyr Tyr Phe Asn Thr Val Asp Asp Leu Ala Val His Gly Lys
145                 150                 155                 160
Thr Gly Asp Ile Trp Phe Thr Asp Pro Arg Met Ser Pro Phe Cys Leu
                165                 170                 175
Pro Ile Cys Leu Leu Arg Asn His Trp Thr Asp Ala Leu Thr Arg Ile
            180                 185                 190
Leu Met Val Gln
        195
```

<210> 37222
<211> 63
<212> PRT
<213> A.fumigatus

<400> 37222
Tyr Trp Thr Gln Asp Leu Trp Ser Pro Pro Leu Ile Leu Thr Leu Thr
1 5 10 15
Ala Thr Gly Gln Leu Leu Gly Leu Leu Ser Lys Gly Ser Asn Ala Pro
20 25 30
Cys Asp Cys Gly Glu Phe Lys Thr Thr Lys Pro Glu Met Ala Ser Asn
35 40 45
Phe Gln Ser Ser Thr Ser Tyr Val Trp Thr Arg Pro Phe Glu Val
50 55 60

<210> 37223
<211> 81
<212> PRT
<213> A.fumigatus

<400> 37223
Pro Glu Tyr Ser Trp Phe Asn Lys Leu Thr Asp Thr Pro Pro Gln Leu
1 5 10 15
Pro Ser Ala Thr Tyr Arg Tyr Asn Pro Lys Ser Gly Ala Val Phe Val
20 25 30
Val Asp Asp Ser Leu Ser Gln Pro Asn Gly Ile Ala Phe Asn Pro Asp
35 40 45
Tyr Ser Ile Val Tyr Ile Ser Asp Thr Gly Ala Val Ser Gly Pro Val
50 55 60
Asp Pro Lys Phe Gly His Pro Gly Thr Pro Phe Asn Ala Thr Gly Pro
65 70 75 80
Arg

<210> 37224
<211> 121
<212> PRT
<213> A.fumigatus

<400> 37224
Glu Leu Lys Gly Thr Arg Asn Tyr Arg Leu Asp Ser Leu Met Lys Val
1 5 10 15
His His Asp Tyr Arg Thr Ile Tyr Ala Phe Asp Val Ser Lys Asp Gly
20 25 30
Thr Thr Ala Ser Asn Lys Arg Pro Val Tyr Leu Ser Ala Gly Tyr Val
35 40 45
Pro Asp Gly Leu Lys Val Ala Ala Asn Gly Tyr Ile Val Thr Gly Asn
50 55 60
Gly Arg Gly Val Asp Val Leu Asp Pro His Gly Gln Leu Leu Leu Thr
65 70 75 80
Ile Gln Thr Asn Tyr Thr Val Gln Asn Phe Ala Trp Thr Gly Pro Lys
85 90 95
Leu Lys Thr Leu Trp Leu Met Gly Ser Gly Gly Ile Ser Lys Val Glu
100 105 110
Trp Asp Leu Ala Gly Gln Glu Leu Lys
115 120

<210> 37225
<211> 92
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (90)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37225
Lys Asp Ile Leu Ser Arg Phe Val Asp Lys Ile Asn Leu Ser Tyr Arg
1 5 10 15
Thr Arg Ala Lys Gly Gly Glu Arg Thr Gly Lys Lys Ser Phe Ile Ser
20 25 30
Thr Ile Tyr Leu Ser Ile Gln Thr Leu Val Pro Ala Lys Leu Asp Ala
35 40 45
Cys Leu Leu Lys Gly Gln Ile Ser Tyr Tyr Ser Pro Asn Ser Lys Val
50 55 60
Ser Ala Val Ala Asp Phe Arg Val Arg Ser Ser Ser His Val Leu Phe
65 70 75 80
His Arg Gly Leu Lys Glu Arg Ser Ile Xaa Lys Phe
85 90

<210> 37226
<211> 349
<212> PRT
<213> A.fumigatus

<400> 37226
Thr Asp Ser Pro Phe Ser Gly His Phe His Ala Asp Glu Ala Leu Ala
1 5 10 15
Val Tyr Leu Leu Arg Gln Leu Pro Thr Tyr Ala Ser Ser Pro Leu Ile
20 25 30
Arg Thr Arg Asp Pro Ala Gln Leu Ala Thr Cys His Thr Val Val Asp
35 40 45
Val Gly Gly Glu Tyr Asp Pro Ala Ser Asn Arg Tyr Asp His His Gln
50 55 60
Arg Thr Phe Ser Thr Thr Phe Pro Asn His Asn Thr Arg Leu Ser Ser
65 70 75 80
Ala Gly Leu Val Tyr Met His Phe Gly Arg Ala Ile Ile Ala Gln His
85 90 95
Thr Ser Leu Pro Leu Asp His Glu Asp Val Thr Leu Leu Tyr Glu Lys
100 105 110
Leu Tyr Thr Asp Phe Ile Glu Ala Val Asp Ala Asn Asp Asn Gly Val
115 120 125
Ser Val Tyr Asp Pro Ala Ala Leu Ala Ser Ala Asn Ile Glu Lys Arg
130 135 140
Phe Arg Asp Gly Gly Ile Thr Ile Ala Ser Val Val Asn Asp Met Asn
145 150 155 160
Asn Pro Asp Pro Thr Cys Pro Pro Gly Glu Pro Gln Asp Glu Asp Ser
165 170 175
Leu Phe Asn Arg Ala Ser Thr Phe Met Gly His Val Phe Thr Arg Lys
180 185 190
Leu His His Ala Phe Thr Ser Trp Leu Pro Ala Arg Ala Thr Val Gly
195 200 205
Ala Ala Tyr Gln Ser Arg Arg Glu Val His Pro Ser Gly Arg Ile Ile
210 215 220
Ile Leu Pro Gln Gly Gly Val Pro Trp Lys Glu His Leu Tyr Asn Phe
225 230 235 240

```
Glu Lys Glu Ala Ser Gly Ala Gly Asp Ile Asn Pro Asp Glu Gln Val
                245                 250                 255
Tyr Tyr Val Leu Tyr Pro Glu Ser Ala Thr Glu Gly Ser Lys Trp Arg
            260                 265                 270
Val Gln Cys Val Ser Val Asn Glu Gly Ser Phe Glu Ser Arg Lys Pro
        275                 280                 285
Leu Pro Glu Ser Trp Arg Gly Val Arg Asp Ala Asp Leu Asp Gly Cys
    290                 295                 300
Leu Ala Ala Glu Ala Glu Lys Ser Gly Lys Pro Lys Ile Pro Glu Gly
305                 310                 315                 320
Ala Val Phe Val His Ala Ser Gly Phe Ile Gly Gly His Lys Thr Lys
                325                 330                 335
Glu Gly Ala Phe Ala Met Ala Val Arg Ser Leu Glu Leu
            340                 345
```

<210> 37227
<211> 95
<212> PRT
<213> A.fumigatus

<400> 37227

```
Ile Val Thr Val Arg Phe Gln Pro Leu Pro Ser Ala Pro Ile Leu Lys
1               5                   10                  15
Asn Arg Val Phe Lys Ile Ser Ala Ser Gln Lys Phe Glu Thr Val Val
            20                  25                  30
Lys Phe Leu Arg Lys Lys Leu Asp Cys Lys Asp Thr Asp Ser Val Phe
        35                  40                  45
Cys Tyr Val Asn Ser Val Phe Ala Pro Gly Leu Asp Glu Gly Val Gly
    50                  55                  60
Gly Leu Trp Arg Val Ser Ile Leu Ala Thr Gly Thr Phe Ala Leu Lys
65                  70                  75                  80
Val Leu Ile Glu Gly Phe Tyr Ser Val Ser Arg Arg Met Ile Asn
                85                  90                  95
```

<210> 37228
<211> 179
<212> PRT
<213> A.fumigatus

<400> 37228

```
Ser Leu Ser Phe Gly Asp Ser Thr Tyr Ile His Tyr Ile Ala Val Met
1               5                   10                  15
Ile Ser Ser Arg Thr Ala Ile Gln Leu Ala Leu Pro Leu Arg Ser Leu
            20                  25                  30
Ala Arg Ala Ala Gly Val Arg Pro Gly Leu Thr Pro Ile Val Arg Phe
        35                  40                  45
Ala Leu Arg Gly Ser Tyr Leu Pro Ala Arg His Val Pro Pro Pro Cys
    50                  55                  60
Thr Pro Gln Val Arg His Ser Ser His Ser Pro Leu Gly Ala Ala Pro
65                  70                  75                  80
Val Asn Pro Arg Lys Lys Val Thr Met Gln Thr Leu Arg Ser Leu Tyr
                85                  90                  95
Lys Lys Gly Glu Pro Ile Thr Met Leu Thr Ala His Asp Phe Pro Ser
            100                 105                 110
Gly His Val Ala Asp Ala Ala Gly Met Glu Met Ile Leu Val Gly Asp
        115                 120                 125
```

```
Ser Leu Ala Met Val Ala Leu Gly Met Glu Asp Thr Ser Glu Val Leu
    130                 135                 140
Met Glu Glu Met Leu Leu His Cys Arg Ser Val Ala Arg Ala Ala Lys
145                 150                 155                 160
Ser Ala Phe Thr Val Arg Lys Pro Cys Arg Arg Cys Gly Leu Tyr Ser
                165                 170                 175
Arg Leu Gly
```

<210> 37229
<211> 264
<212> PRT
<213> A.fumigatus

<400> 37229

```
Arg Ser Glu Phe Thr Ser Ile Pro Gly Glu Asp Glu Ile Glu Arg Gln
1               5                   10                  15
Arg Ala Arg Gln Gln Glu Lys Glu Lys Lys Leu Ala Pro Lys Ala Pro
            20                  25                  30
Ala Val Lys Glu Val Pro Lys Phe Asp Ala Pro Asp Val Gly Pro Val
        35                  40                  45
Asn Leu Asp Asn Leu Glu Pro Ser Lys Glu Thr Lys Pro Gly Gly Asn
    50                  55                  60
Gly Phe Glu Pro Pro Gln Arg Met Thr Pro Glu Asp Val Gln Met Pro
65                  70                  75                  80
Leu Gln Thr Lys Pro Glu Ser Pro Arg Lys Ser Ser Glu Ser Phe Val
                85                  90                  95
Pro Pro Pro Leu His Arg Thr Gly Pro Phe Tyr Ala Gly Arg Glu Pro
            100                 105                 110
Ala Ala Ser Gly Met Gln Pro Ser Asn Ile Thr Ser Ala Ile Arg Ser
        115                 120                 125
Gln Met Val Ser Ser Thr Ala Ala Ala Pro Gly Ala Lys Ala Gly Leu
    130                 135                 140
Ser Lys Glu Val His Glu Leu Lys Arg Lys Val Leu Glu Lys Ser Asn
145                 150                 155                 160
Gly Gly Leu Ser Thr Gly Thr Val Leu Ser Pro His Pro Thr Thr Ser
                165                 170                 175
Thr Ser Ala Pro Leu Lys Thr Ser Asn Cys Gln Ser Asn Lys Leu Cys
            180                 185                 190
Gln Ala Asn Thr Gln Glu Lys Leu Gly Arg Val Gln Asp Glu Asp Thr
        195                 200                 205
Thr Gln Ser Glu Gly Asn Cys Val Ala Lys Gln Arg Ala Gly Leu Arg
    210                 215                 220
Lys Val Pro Val Ser Lys Lys Lys Glu Arg Arg Arg Asp Pro Lys Pro
225                 230                 235                 240
Gly Tyr Cys Glu Asn Cys Arg Asp Lys Phe Asp Asp Phe Glu Glu Val
                245                 250                 255
Arg Ile Asp His Val Gly Arg Asn
            260
```

<210> 37230
<211> 206
<212> PRT
<213> A.fumigatus

<400> 37230

```
Val Ala Asp Leu Pro Met Gly Ser Tyr Glu Val Ser Pro Glu Gln Ala
1               5                  10                  15
Val Gln Ser Ala Ile Arg Met Val Lys Glu Gly Arg Val Gln Ala Val
            20                  25                  30
Lys Leu Glu Gly Gly Glu Glu Met Ala Pro Thr Ile Lys Arg Ile Val
        35                  40                  45
Glu Ala Gly Ile Pro Val Val Gly His Ile Gly Leu Thr Pro Gln Arg
    50                  55                  60
Gln Asn Ala Leu Gly Gly Phe Arg Val Gln Gly Lys Ser Thr Ala Gly
65                  70                  75                  80
Ala Leu Arg Leu Leu Lys Asp Ala Leu Ala Val Gln Glu Ala Gly Ala
                85                  90                  95
Phe Met Met Val Val Glu Ala Val Pro Ala Glu Ile Ala Ala Ile Ile
            100                 105                 110
Thr Lys Lys Leu Ser Val Pro Thr Ile Gly Ile Gly Ala Gly Asn Gly
        115                 120                 125
Cys Ser Gly Gln Val Leu Val Gln Ile Asp Met Thr Gly Asn Tyr Pro
    130                 135                 140
Pro Gly Arg Phe Leu Pro Lys Phe Val Lys Arg Tyr Ala Asp Val Trp
145                 150                 155                 160
Gly Glu Ser Ile Lys Gly Ile Glu Gln Tyr Arg Glu Glu Val Lys Ser
                165                 170                 175
Arg Ala Tyr Pro Ser Gln Glu Tyr Thr Tyr Pro Ile Ala Glu Glu Glu
            180                 185                 190
Leu Ala Glu Phe Lys Lys Ala Ala Asp Val Ile Lys Arg Ser
        195                 200                 205
```

<210> 37231
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37231

```
Leu Pro Phe Gln Ser Leu Ala Leu Cys Thr Val Cys Arg Arg Asn Phe
1               5                  10                  15
Lys Asn Thr Ala Ile Lys Thr Cys Gly His Val Phe Cys Lys Glu Cys
            20                  25                  30
Val Glu Glu Arg Leu Thr Ser Arg Ser Arg Lys Cys Pro Asn Cys Asn
        35                  40                  45
Arg Ser Phe Gly Asn Asn Asp His Met His Ile Thr Leu
    50                  55                  60
```

<210> 37232
<211> 214
<212> PRT
<213> A.fumigatus

<400> 37232

```
Leu Ala Arg Pro Phe Gln Pro Arg Gly Glu Asp Gln Tyr Ser Met Leu
1               5                  10                  15
Asn Thr Glu Leu Thr Ser Met Gln Thr Ala Cys Lys Lys Tyr Ser Leu
            20                  25                  30
Leu Ala Ser Gln Lys Val Ala Asp Phe Ser Ala Leu Glu Glu Lys Val
        35                  40                  45
Ala Arg Leu Thr Ala Glu Lys Ser Lys Ala Asp Gln Lys Tyr Phe Ala
    50                  55                  60
```

```
Ala Met Lys Ser Lys Glu Ala Arg Glu Leu Glu Val Arg Thr Leu Arg
65                  70                  75                  80
Ile Gln Asn Ser Lys Ser Ser Asp Ile Val Ser Gln Leu Lys Glu Ser
                85                  90                  95
Glu Ala Thr Thr Arg Ser Leu Leu Ala Asn Met Glu Lys Gln Ala Ser
            100                 105                 110
Glu Thr Lys Glu Ala Leu Asn Ser Ile Ile Ser Lys His His Ala Ala
        115                 120                 125
Gln Gln Gln Ile Ala Glu Asn Asn Ile Val Ile Asp Gly Leu Lys Ala
    130                 135                 140
Gln Val Asn Glu Leu Lys Ala Leu Ser Val Ser Lys Asp Ser Ser Leu
145                 150                 155                 160
Ala Ser Ala Ser Ser Ala Cys Arg Lys Ala Glu Thr Glu Ile Glu Ser
                165                 170                 175
Leu Lys Val Thr Leu Ala Asp Thr Lys Lys Ser Leu Glu Asn Trp Lys
            180                 185                 190
Asn Lys Ser Leu Gly Asn Ser Ser Ser Glu Tyr Glu Met Leu Arg Val
        195                 200                 205
Ser Leu Ser Ala Tyr Ala
    210
```

<210> 37233
<211> 262
<212> PRT
<213> A.fumigatus

<400> 37233

```
Arg Leu Thr Ser Lys Ile Asp Glu Pro Tyr Leu Pro Pro Asn His Ala
1               5                   10                  15
Leu Leu Leu Leu Ser Asp Ser Ala Leu Pro Leu Gly Ser Phe Ala Tyr
            20                  25                  30
Ser Ser Gly Leu Glu Ser Tyr Leu Ala His Ser Lys Pro Leu Pro Arg
        35                  40                  45
Ser Val Thr Thr Ile Ala Ser Phe His His Phe Leu Lys Leu Ser Ile
    50                  55                  60
Ala Ser Ile Ala Ser Thr Ser Leu Pro Tyr Val Leu Ala Ala Tyr Arg
65                  70                  75                  80
Asn Pro Gly Glu Leu Glu Thr Leu Asp Asn Asp Leu Asp Ala Ser Thr
                85                  90                  95
Pro Cys Ile Val Ala Gln Arg Ala Ser Val Ala Gln Gly Arg Ala Leu
            100                 105                 110
Leu Gly Val Trp Glu Arg Ala Phe Arg Ser Ala Tyr Ala Ser Gly Pro
        115                 120                 125
Pro Ala Gly Glu Thr Asp Ala Ala Lys Ala Val Gln Met Ile Glu Asn
    130                 135                 140
Phe Ser Asp Ala Leu Lys Ser Trp Val Gly Thr Ala Asp Glu Leu Gly
145                 150                 155                 160
Pro Lys Gly His Leu Ala Pro Leu Trp Gly Val Val Cys Leu Ala Met
                165                 170                 175
Gly Val Asp Leu Arg Gln Thr Ala Tyr Val Phe Met Leu Asn His Ala
            180                 185                 190
Lys Ala Val Leu Ser Ala Ala Val Arg Ala Ser Val Met Gly Pro Tyr
        195                 200                 205
Gln Ala Gln Ser Val Leu Ala Ser Lys Ala Leu Gln Ala Met Ile Ser
    210                 215                 220
Glu Arg Ile Asp Arg Glu Trp Asn Thr Ala Val Glu Asp Ala Gly Gln
```

225 230 235 240
Ile Val Pro Pro Leu Asp Leu Trp Val Gly Arg His Glu Leu Leu Tyr
245 250 255
Ser Arg Ile Phe Asn Ser
260

<210> 37234
<211> 206
<212> PRT
<213> A.fumigatus

<400> 37234
Pro Pro Pro Ile Val Arg Ser Gly Arg Leu Val Val Lys Arg Ser Ser
1 5 10 15
Val Lys Lys Ser Glu Tyr Val Leu Ser Thr Asp Asn Pro Leu Asp Ala
20 25 30
Pro Ala Ser Pro Lys Pro Gln Asn Glu Gly Glu Pro Glu Asp Glu Glu
35 40 45
Met Gly Gly Thr Glu Thr Glu Thr Lys Lys Glu Ser Glu Gly Gly Asp
50 55 60
Gly Thr Gly Asp Ala Ser Ala Gln Pro Ser Ala Glu Gly Ala Ser Glu
65 70 75 80
Glu Gln Thr Val Gln Gly Lys Ser Gly Leu Glu Ala Ser Ala Arg Ser
85 90 95
His Leu Val Ser Gln Thr His Ala Ile Ile Leu Pro Ser Tyr Ser Thr
100 105 110
Trp Phe Asp Met His Thr Ile His Pro Ile Glu Lys Lys Ala Leu Ala
115 120 125
Glu Phe Phe Asn Gly Arg Asn Arg Ser Lys Thr Pro Ala Val Tyr Lys
130 135 140
Asp Tyr Arg Asp Phe Met Ile Asn Thr Tyr Arg Leu Asn Pro Ile Glu
145 150 155 160
Tyr Leu Thr Val Thr Ala Cys Arg Arg Asn Leu Ala Gly Asp Val Cys
165 170 175
Ala Ile Met Arg Val His Ser Phe Leu Glu Gln Trp Gly Leu Ile Asn
180 185 190
Tyr Gln Val Ser Leu His Leu Leu Ser Ile Thr Ser Phe Pro
195 200 205

<210> 37235
<211> 556
<212> PRT
<213> A.fumigatus

<400> 37235
Phe His Asp Gln His Val Ser Ile Glu Pro Tyr Arg Val Ser His Ser
1 5 10 15
His Arg Leu Ser Ser Lys Phe Gly Arg Arg Cys Met Arg Tyr His Ala
20 25 30
Ser Ser Phe Ile Pro Arg Ala Met Gly Leu Asp Gln Leu Ser Gly Lys
35 40 45
Ser Ala Ser Ile Val Tyr Asn Phe Ile Pro Val Ala Asn Val Val Ser
50 55 60
Cys Lys Val Asp Pro Gln Thr Arg Pro Ser Asn Ile Gly Pro Pro Phe
65 70 75 80
Thr Gly His Phe Arg Val Ile Ala Asp Thr Pro Arg Gly Leu Gln Pro

```
                85                  90                  95
Phe Gln Pro Gly Pro Gln His Val Val Lys Pro Gly Lys Pro His Pro
            100                 105                 110
Ala Thr Asp Arg Ala Ala Ser Ala Thr Pro Ala Ser Lys Ala Asp Leu
        115                 120                 125
Asn Leu Glu Ile Arg Arg Asn Ile Tyr Asp Asp Lys Gly Lys Glu Ile
    130                 135                 140
Thr Pro Ala Ala Glu Asp Lys Glu Lys Gln Thr Asn Gly Glu Gly Ser
145                 150                 155                 160
Ala Ala Asn Gly Thr Ala Ala Asp Ala Ser Lys Ala Met Glu Ser Ala
                165                 170                 175
Val Arg Glu Pro Arg Lys Lys Phe His Cys Phe Ser Cys Gly Ile Asp
            180                 185                 190
Cys Thr Arg Leu Arg Phe His Tyr Ala Lys Ala Ala Pro Thr Thr Thr
        195                 200                 205
Asn Ala Asn Ala Pro Asp Ser Lys Tyr Asp Leu Cys Pro Asn Cys Phe
    210                 215                 220
Leu Gln Gly Arg Met Pro Ala Ser His Asn Ala Ser Asp Phe Val Lys
225                 230                 235                 240
Leu Glu Asp Asn Glu Tyr Thr Ile Ala Pro Asp Lys Asp Ala Pro Trp
                245                 250                 255
Ser Asp Ser Glu Leu Ile Leu Leu Leu Glu Gly Leu Glu Ser Phe Asp
            260                 265                 270
Asp Asn Trp Glu Gln Ile Ala Asn His Val Gly Thr Arg Thr Lys Glu
        275                 280                 285
Glu Cys Val Met Lys Phe Leu Gln Leu Glu Ile Glu Asp Lys Tyr Val
    290                 295                 300
Glu Asp Met Pro Glu Met Arg Ala Ala Ser Gly Arg Asp Pro Ile Asn
305                 310                 315                 320
His Val Glu Asn Pro Val Leu Ser Val Val Ala Phe Leu Ala Gln Met
                325                 330                 335
Ala Glu Pro Ala Val Ala Ala Ala Ala Ala Gly Arg Ser Val Glu Glu
            340                 345                 350
Ile Arg Lys Glu Leu Arg Lys Gln Leu Asp Lys Asp Met Gly Ser Gly
        355                 360                 365
Lys Pro Ser Asp Lys Gly Lys Glu Lys Glu Gly Ala Ser Val Lys Asn
    370                 375                 380
Glu Asp Ser Met Asp Val Asp Thr Phe Arg Glu Glu Ala Ala Ala Gly
385                 390                 395                 400
Val Ala Asp Ser Gly Glu Gly Glu Lys Gln Pro Lys Ala Ser Leu Ala
                405                 410                 415
Thr Val Ala Leu Gly Thr Ser Ala Ala Arg Ala Ala Ala Leu Ala Ser
            420                 425                 430
His Glu Glu Arg Glu Met Thr Arg Leu Val Ser Ala Ala Val Asn Val
        435                 440                 445
Thr Leu Gln Lys Phe Glu Ile Lys Leu Gln Gln Phe Asn Glu Met Glu
    450                 455                 460
Glu Ile Ile Glu Ala Glu Arg Arg Glu Leu Glu Leu Ala Arg Gln Gln
465                 470                 475                 480
Leu Phe Leu Asp Arg Met Ala Phe Lys Arg Arg Val Lys Glu Val Gln
                485                 490                 495
Asp Ser Leu Gln Ala Ile Ser Leu Lys Gly Pro Thr Glu Glu Thr Ala
            500                 505                 510
Asn Leu Ile Gly Asp Ala Ala Thr Ala Gly Ile Ser Thr Arg Tyr Asn
        515                 520                 525
Phe Gln Pro Ala Gly Gly Asp Ala Arg Asp Gly Val Gln Pro Leu Ser
```

```
    530                 535                 540
Ala Glu Thr Gly Ala Asp Tyr Lys Thr Leu Asp Leu
545                 550                 555

<210> 37236
<211> 153
<212> PRT
<213> A.fumigatus

<400> 37236
Asn Leu Ser Gln Ser Gln Asp Ser Glu Ser Glu Tyr Glu Thr Glu Phe
1               5                   10                  15
Pro Ser Arg Phe Arg Arg Gly Glu Thr Gln Glu His Ile Ser Gly Leu
            20                  25                  30
Pro Ser Gln Pro Pro Ile Arg Leu Glu Arg Arg Arg Arg Gly Thr Asp
        35                  40                  45
Ser Asp Ser Tyr Leu Asp Ser Asn Asp Ser Asp Ser Asp Gly Asp Glu
    50                  55                  60
Ser Thr Ser Pro Gln Arg Gly Val Lys Leu Glu Pro Asp Met Pro Glu
65                  70                  75                  80
Ala Asp Leu Asp Ser Glu Ser Gly Ser Ser Phe Asp Asp Asp Thr Lys
                85                  90                  95
Asp Lys Asp Glu Arg Tyr Lys Asn Glu Asn Glu Asp Asp Val Ser Pro
            100                 105                 110
Gly Ser Asp Asp Asp Leu Pro Tyr Asp Arg Tyr Gln Lys Arg Asp Asp
        115                 120                 125
Ser Tyr Ser Ala Ser Glu Asp Glu Asp Glu Lys Ser Asn Leu Pro Leu
    130                 135                 140
His Ser Gln Pro Met Ser Pro Val Val
145                 150

<210> 37237
<211> 75
<212> PRT
<213> A.fumigatus

<400> 37237
Val Glu Glu Ile Ala Lys Val Pro Gly Ile Asp Val Leu Phe Val Gly
1               5                   10                  15
Pro Trp Asp Leu Gly Asn Asn Ile Gly Arg Pro Val Lys Gly Ala Phe
            20                  25                  30
His Glu Asp Leu Glu Ala Ala Ile Glu Arg Ile Arg Lys Ala Ala Val
        35                  40                  45
Asp Asn Gly Lys Arg Ala Gly Ile Tyr Cys Val Gly Gly Ala Ala Ala
    50                  55                  60
Lys Lys Tyr Ala Asp Arg Gly Phe His Met Val
65                  70                  75

<210> 37238
<211> 82
<212> PRT
<213> A.fumigatus

<400> 37238
Arg Trp Thr Gly Ala Leu Asp Ala Gly Ala His Gly Ile Val Val Pro
1               5                   10                  15
```

```
Leu Leu Tyr Thr Ala Asp Asp Ala Arg Arg Leu Val Glu Ser Ala Lys
            20                  25                  30
Phe Pro Pro Val Gly Arg Arg Gly Phe Gly Ser Pro Phe Ala Met Gly
        35                  40                  45
Ser Ile Gly Gly Val Ser Gly Leu Glu Tyr Leu Gln Gly Ala Asn Asp
    50                  55                  60
Ala Leu Leu Thr Ile Val Gln Ile Glu Thr Lys Glu Ala Leu Glu Asn
65                  70                  75                  80
Val Ser
```

<210> 37239
<211> 777
<212> PRT
<213> A.fumigatus

<400> 37239

```
Gln Ile Gln Tyr Ala Asp Asp Ala Ala Arg Gln Ala Tyr Arg Arg Asn
1               5                   10                  15
Ala Pro Thr Asp Arg Arg Thr Cys Leu Leu Gly Thr Ala Gln His Gly
            20                  25                  30
Met Tyr Ala Phe Ala Gln Cys Met Ser Met Ser Gln Thr Gln Asp Leu
        35                  40                  45
Thr Gly Thr Asn Arg Ser Leu Leu Pro Arg Gln Leu Lys Arg Leu Arg
    50                  55                  60
Ser Leu Pro Ser Ser Ser His Ser Pro Pro Leu Val Val Ile Gln Ser
65                  70                  75                  80
Ala Thr Pro Pro Arg Ser Thr Trp Asn Gly Arg Glu Pro Ser Pro Arg
                85                  90                  95
Arg Thr Leu Gln Ser Ser Arg Glu Ala Gly Ser Arg Leu Gln Tyr Arg
            100                 105                 110
Leu Gly Leu Phe Ser His Arg Arg Thr Gln Ser Gly Ser Ala Met Tyr
        115                 120                 125
Pro Ala Arg Gly Asn Trp Gln Ala Arg Gly Gln Ile Glu Ala Asp Glu
    130                 135                 140
Ser Ser Val Gly Glu Pro Glu Gly Lys Asp Asp Ala Ile Glu Val Ser
145                 150                 155                 160
Ser Ser His Ser Glu Glu Ser Phe His Thr Ala Thr Arg Ser Pro Met
                165                 170                 175
Pro Glu Phe Ile Ser Thr Glu Ser Arg Gly Val Gln Gly Ser Arg Phe
            180                 185                 190
Ala Arg Ile Arg Gln Ala Gln Glu Arg Arg Thr Gly Ser Val Lys Arg
        195                 200                 205
Glu Glu Glu Glu Val Thr Glu Ala Arg Leu Pro Ile Leu Arg His Ser
    210                 215                 220
Asn Leu Ala Gly Gly Thr Phe Ile Ser Ala Val Asp Glu Asp Glu Glu
225                 230                 235                 240
Met Met Asp Pro Ser Val Asp Leu Ser Lys Lys Asp Ala Asp Arg Leu
                245                 250                 255
Val Asn Ile Tyr Leu Lys Leu Asp Tyr Val Thr Leu Pro Ile Leu Asp
            260                 265                 270
Ile Gln Asp Phe Arg Ala Ala Tyr Glu Ala Val Ser Val Ala Gly Asp
        275                 280                 285
Ser Thr Thr Pro Asn Ala Phe Tyr Ala Ile Leu Asn Thr Ile Phe Ala
    290                 295                 300
Leu Ala Cys Leu Asn Val Asp Asp Met Arg Glu Glu Arg Ala Arg Tyr
```

```
305                 310                 315                 320
Phe Phe Asn Glu Gly Gln Arg Leu Ala Asn Leu Phe Asp Gln Tyr Lys
                325                 330                 335
Ser Ile Asp Leu Leu Arg Leu Tyr Ile Leu Gln Val Gln Tyr Leu Asn
            340                 345                 350
Ala Ile Gly Asp Leu Pro Thr Ala Trp Ala Leu Ile Gly Ser Thr Ile
        355                 360                 365
Arg Leu Ala Gln Ser Leu Arg Leu Pro Phe Asp Ala Lys Gln His Gly
    370                 375                 380
His Ser Arg Lys Glu Arg Glu Thr Cys Arg Arg Leu Trp His Gly Ala
385                 390                 395                 400
Met Ile Met Glu Gln Ile Ile Ala Leu Arg Leu Gly Ile Ala Pro Gln
                405                 410                 415
Thr Pro Asp Pro Leu Arg Val Pro Leu Pro Thr His Leu Asp Thr Asp
            420                 425                 430
Tyr Val Asp Val Phe Ser Ser Ala Pro Ser Ser Ala Pro Ser Ser Ser
        435                 440                 445
Gln Gly Glu Arg Ala Ser Ile Ile Glu Phe Phe Thr Ala Cys Ala Arg
    450                 455                 460
Leu Tyr Arg Leu Val Glu Asp Val Met Ala Trp Glu Glu Glu Ala Arg
465                 470                 475                 480
Ile Arg Pro His Gly Cys Ala Met Lys Lys Leu Leu Ser Leu Asp Phe
                485                 490                 495
Thr Arg Phe Leu Lys Ala Asp Ser Leu Leu His Asp Trp Asn Gln Ser
            500                 505                 510
Leu Pro Ser Ser Phe Arg Ser Ser Gly Gly Arg Gly Thr Asp Glu His
        515                 520                 525
Ser Ile Val Val Arg Gln Arg Asn Ile Leu Arg Ala Arg Tyr Leu Tyr
    530                 535                 540
Leu Arg Leu Arg Leu Asn Arg Pro Leu Val Thr Leu Gly Leu Ala Leu
545                 550                 555                 560
Thr Thr Ala Cys Lys Cys Lys Ser Asp Gly Gln Pro His Ile Val Val
                565                 570                 575
Arg Arg Pro Ala Pro Asp Ser Pro Ile Ala Leu Ser Leu Val His Gly
            580                 585                 590
Ala Ser Val Met Cys Val Arg Ser Ala Leu Glu Leu Ala Glu Leu Ile
        595                 600                 605
Arg Ala His Glu Thr Gly Leu Leu Arg Phe Asp Ala Pro Tyr Asp Ala
    610                 615                 620
Ser His Cys Leu Ser Pro Pro Tyr Trp Glu Ser Val Asp Tyr Leu Tyr
625                 630                 635                 640
Val Cys Gly Thr Ala Phe Leu Ala Ser Phe Asn His Thr Cys Pro Phe
                645                 650                 655
Phe Gly Asp Met Thr Asp Glu Glu Asp Glu Gln Cys Arg Val Leu Trp
            660                 665                 670
Pro Cys Ile Ile Asp Leu Leu Gly Arg Tyr Gln Gly Tyr Arg Arg Arg
        675                 680                 685
Gly Arg Thr Asp Asn Val Ala His Ala Cys Ser Arg Thr Leu Ser Glu
    690                 695                 700
Leu Ala Lys Ala Val Glu Ser Thr Asp Phe Thr Pro Trp Ala Val Asp
705                 710                 715                 720
Ser Ala Ile Leu Gly Gln Asp Ala Arg Ala Arg Leu Ser Gln Arg Thr
                725                 730                 735
Glu Met Glu Ser Pro Val Arg His Arg Arg Ile Ser Gly Ala Ser Gln
            740                 745                 750
Thr Ile Pro Asp Pro Leu Gly Asp Val Pro Gly Phe Pro Glu Trp Met
```

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        755                 760                 765
Asp Ser Leu Pro Val Asp Leu Val Gly
    770                 775

<210> 37240
<211> 92
<212> PRT
<213> A.fumigatus

<400> 37240
Arg Val Thr Leu Phe Thr Arg Ala Gly Cys Gly Leu Cys Asp Thr Ala
1               5                  10                  15
Lys His Thr Val Thr Gln Leu His Lys Arg Arg Pro Phe Asp Tyr Ala
            20                  25                  30
Glu Leu Asp Ile Met Ala Pro Glu Asn Lys Ser Trp Lys Asp Val Tyr
        35                  40                  45
Glu Phe Asp Val Pro Val Leu His Val Gln Ala Ala Leu Lys Asp Gln
    50                  55                  60
Phe Ser Asp Pro Lys Lys Leu Phe His Arg Phe Thr Glu Gln Glu Ile
65                  70                  75                  80
Glu Asn Leu Val Glu Glu Ala Glu Glu Met Lys Pro
                85                  90

<210> 37241
<211> 243
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (18)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37241
Gln Arg Gly Tyr Thr Arg Ala Ala Arg Lys Ser Arg Thr Ser Lys Leu
1               5                  10                  15
Pro Xaa Cys Met Tyr Gly Lys Phe Ala Pro Ser Pro Gly Arg Gly Glu
            20                  25                  30
Ile Pro Arg Leu Asn His Tyr Ser Asn Ala Leu Ala Arg Arg Val Gln
        35                  40                  45
Lys Arg Arg Arg Arg Asp Lys Val Pro Gly Leu Gln Leu Arg Lys Gly
    50                  55                  60
Asp Ser Asp Asp Asp Ser Asp Arg Ala Ser Ser Ser Glu Gly Lys Val
65                  70                  75                  80
Ala Gly Lys Glu Asn Ser Lys Gln Lys Thr Gly Gln Asp Gly Lys Ser
                85                  90                  95
Thr Ser Arg Leu Ser Ser Phe Ser Glu Phe Phe Ala Leu Leu Glu Ala
            100                 105                 110
His Pro Asn Val Pro Ser Ile Leu Ser Trp Trp Ala Gln Leu Val Val
        115                 120                 125
Asn Leu Ser Leu Phe Ser Leu Ala Val Tyr Val Val Phe Gly Phe Val
    130                 135                 140
Ser Ala Ile Arg Ala Glu Phe Glu Gln Ala Ala Glu Glu Val Ser Asp
145                 150                 155                 160
Thr Ile Leu Ala Glu Met Ala Val Cys Ala Lys Ser Tyr Val Asp Asn
                165                 170                 175
```

```
Lys Cys Ala Gly Gly Glu Arg Leu Pro Ala Leu Glu Thr Ile Cys Glu
            180                 185                 190
Asn Trp Glu Arg Cys Met Asn Arg Asp Pro Ala Lys Val Gly Arg Ala
        195                 200                 205
Lys Val Ser Ala His Thr Met Ala Ile Ile Ile Asn Ser Phe Ile Asp
    210                 215                 220
Pro Ile Ser Trp Lys Ala Ile Val Cys Gly His Ser Leu Cys Ser Ile
225                 230                 235                 240
Ala Asp Asn
```

<210> 37242
<211> 134
<212> PRT
<213> A.fumigatus

<400> 37242
```
Ala Gln Pro Ser Ala Asp Leu Asp Ser Ser Ala Ile Lys Arg Ser Asn
1               5                   10                  15
Gln His Ser Leu Asn Gln Leu Ala Arg Tyr Ser Arg Val Ser Leu His
            20                  25                  30
His Asp Ile Gln Glu Met Leu Asp Thr Gly Thr Ser Asp Ser Ser Ser
        35                  40                  45
Gly Glu Glu Val Glu Glu Ser Val Ala Val Glu Lys Asp Pro Glu Val
    50                  55                  60
Met Ile Val Asp Gln Asp Glu Thr Val His Pro Tyr Glu Val Ala Gly
65                  70                  75                  80
Gln Thr Ile Leu Ser Asp Ala Val Asn Lys Ala Val Glu Lys Tyr Glu
                85                  90                  95
Thr Lys Glu Thr Glu Lys Leu Val Lys Glu Tyr Glu Ile Val Ser His
            100                 105                 110
Glu Ser Glu Met Gly Thr Gly Tyr Leu Ala Asp Asp Asp Phe Glu Leu
        115                 120                 125
Val Asp His Val Gln Leu
    130
```

<210> 37243
<211> 69
<212> PRT
<213> A.fumigatus

<400> 37243
```
Ser Arg Phe Leu Ser Ser Asp Arg Met Ile Tyr Thr Pro Ile Val Ser
1               5                   10                  15
Tyr Glu Thr Ser Leu Ile Thr Gln Ile His Met Arg Trp Met Gln Tyr
            20                  25                  30
Ile Lys Leu Ser Leu Asn Asp Gln Cys Arg Pro Thr Arg Met Leu Arg
        35                  40                  45
Gly Arg Leu Gly Thr Asn Glu Ser Arg Pro Leu Arg Ser Phe Cys Ser
    50                  55                  60
Ser Ala Gly Leu Leu
65
```

<210> 37244
<211> 69
<212> PRT

<213> A.fumigatus

<400> 37244
Ser Ser Asp Leu Gln Leu Leu Leu Tyr Ala Val Thr Leu Lys Met Glu
1 5 10 15
Lys Arg Ser Ala Glu Ser Pro Met Asp Phe Glu Trp Gln Thr Arg Ala
20 25 30
Pro Gly Asp Val Thr Ser Pro Phe Tyr Gln Leu Ser Met Gln His Asp
35 40 45
Asn Gln Lys Lys Arg Ala Ser Ser Ala Ile Ile Leu Ala Tyr Arg Ser
50 55 60
Phe Gln Tyr Leu Thr
65

<210> 37245
<211> 75
<212> PRT
<213> A.fumigatus

<400> 37245
Ser Gly Tyr Met Lys Asn Ser Met Asp Thr Leu Leu Thr Arg Ser Gly
1 5 10 15
His Tyr Thr Pro Gln Trp Met Asp Gly Ser Ala Ala Asn Pro Ile Ala
20 25 30
Arg Cys Thr Gln Gln Thr Ile Leu Phe Phe Phe Phe Phe Ser Phe Tyr
35 40 45
Leu Ile Gly Gln Glu Tyr Gly Gln Ile Thr Ser Thr Tyr Arg Val Lys
50 55 60
Leu His Ile Phe Ile Phe Pro Val Ile Trp Ser
65 70 75

<210> 37246
<211> 60
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222>
(14),(24),(26),(27),(36),(38),(39),(40),(41),(42),(43),(44),(45),(46),(52),(56),
(57)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37246
Lys Phe Thr Trp Leu Val Val Ser Phe Phe Trp Val Gly Xaa Phe Lys
1 5 10 15
Pro Pro His Ser Gly Lys Gly Xaa Ser Xaa Xaa Pro Pro Leu Phe Leu
20 25 30
Val Lys Arg Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro Phe
35 40 45
Pro Phe Phe Xaa Leu Ile Ser Xaa Xaa Asn Leu Asn
50 55 60

<210> 37247
<211> 72
<212> PRT

<213> A.fumigatus

<400> 37247

```
Asp Ile Asp Arg Asp Gly Tyr Ile Ser Asn Gly Glu Leu Phe Ile Val
1               5                  10                  15
Leu Lys Met Met Val Gly Asn Asn Leu Lys Asp Val Gln Leu Gln Gln
            20                  25                  30
Ile Val Asp Lys Thr Ile Met Glu Ala Asp Lys Asp Arg Asp Gly Lys
        35                  40                  45
Ile Ser Phe Glu Glu Phe Thr Glu Met Val Glu Asn Thr Asp Val Ser
    50                  55                  60
Leu Ser Met Thr Leu Ser Met Phe
65                  70
```

<210> 37248
<211> 396
<212> PRT
<213> A.fumigatus

<400> 37248

```
Pro Ser Ser Leu Cys Ser Cys Phe Tyr Tyr Arg Ile Thr Phe Ile Thr
1               5                  10                  15
Ser Glu Val Lys Leu Arg Cys Val Thr Asn His Asn Gln Trp Glu Lys
            20                  25                  30
Asn Glu Gln Glu Val Lys Arg Tyr Gln Phe Thr Leu Pro Ser Ser Glu
        35                  40                  45
Leu Ala Thr Gly Leu Ala Cys Arg Glu Leu Pro Phe Ile Lys Val Ser
    50                  55                  60
Leu Tyr Val Leu Gly Arg Arg Pro Leu Leu Arg Thr Gly Phe Cys Glu
65                  70                  75                  80
Val Glu Ile Leu Thr Arg Arg Cys Ser Arg Gly Thr Pro Val Ser Arg
                85                  90                  95
Ser Leu Ser Thr Trp Met His Glu Ala Asp Glu Ala Ser Arg Gly Gly
            100                 105                 110
Gly Lys Arg Lys Leu Ser Gly Arg Ile His Ile Leu Gly Leu Gly Asn
        115                 120                 125
Val Gly Thr Phe Val Ala His Ser Leu Ala Ser Arg Pro Ser Pro Pro
    130                 135                 140
Pro Ile Thr Leu Leu Leu His Ser Arg Asp Leu Tyr Gly Ala Trp Leu
145                 150                 155                 160
Ala Lys Lys Lys Cys Leu Ala Val Asn Thr Asn Gly Leu Asp Asp Ile
                165                 170                 175
Lys Thr Gly Phe Asp Val Asn Val Leu Ser Asp Arg Thr Trp Tyr Ser
            180                 185                 190
Leu Pro Tyr Trp Asn Gln Asn Gly Glu Pro Asn Thr Asn Gly Asp Ser
        195                 200                 205
Val Thr Glu Glu Asn Leu Glu Ala Gly Val Glu Glu Ser Leu Ser Gln
    210                 215                 220
Ser Glu Glu Asp Asp Glu His Ile Glu Cys Leu Ile Val Ala Val Lys
225                 230                 235                 240
Ala Pro Met Thr Ala Arg Ala Leu Glu Ser Val Ser His Arg Leu Thr
                245                 250                 255
Pro Asp Ser Thr Val Leu Leu Leu Gln Asn Gly Met Gly Thr Ile Glu
            260                 265                 270
Glu Ile Asn Glu Lys Val Phe Pro Asp Pro Leu Gln Arg Pro His Tyr
        275                 280                 285
```

```
Met Cys Gly Ile Ile Ser His Gly Leu Ala Arg Lys Arg Asp Ala Phe
    290                 295                 300
His Val Thr His Thr Gly Ile Gly Thr Thr Ile Ile Ser Pro Val Val
305                 310                 315                 320
Pro Arg Asp Ala Leu Ala Ser Lys Asp Glu Lys Asp Thr Asp Trp Ala
                325                 330                 335
Pro Ser Thr Lys Tyr Leu Thr Arg Thr Leu Thr Leu Thr Pro Pro Leu
            340                 345                 350
Val Ala Val Ala Glu Thr Pro Ser Ser Leu Leu Leu Tyr Gln Leu Glu
        355                 360                 365
Lys Leu Ala Leu Asn Ala Ile Ile Asn Pro Leu Thr Ala Leu Met Asp
    370                 375                 380
Cys Glu Asn Gly Glu Ile Leu Tyr Asn Tyr Ser Phe
385                 390                 395

<210> 37249
<211> 107
<212> PRT
<213> A.fumigatus

<400> 37249
Leu Ile Ser Leu Ser Ser Gly Val Ala Val Gly Ser Ser Ile Gly His
1               5                   10                  15
Ala Ile Gly Ser Leu Phe Ser Gly Gly Ser Ser Ser Ser Ala Pro Thr
            20                  25                  30
Glu Ala Gln Gln Ala Pro Pro Pro Ala Gln Ala Gln Pro Met Asp Asn
        35                  40                  45
Gly Leu Trp Gln Ser Ser Ala Thr Asn Ser Ser Trp Glu Thr Pro Ala
    50                  55                  60
Cys Glu Thr Asp Val Arg Asn Phe Arg Lys Cys Leu Asp Glu Asn Gln
65                  70                  75                  80
Gly Asn Met Thr Ile Cys Gly Trp Tyr Leu Asp Gln Leu Val Arg Ser
                85                  90                  95
Ile Leu Ile Leu Ser Arg Tyr Ile Glu Cys Cys
            100                 105

<210> 37250
<211> 154
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (86),(88),(133)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37250
Ser Val Tyr Ile Ser Lys Glu Cys Ile Gln Ser Ala Ile Gly Lys Cys
1               5                   10                  15
Gly Ser Trp Ile Gly Val Arg Phe Arg Ser Ser Ala Thr His Ile Pro
            20                  25                  30
Arg Ser Ser Phe Pro Ala Pro Pro Leu Thr Thr Tyr Lys Asn Gln Gln
        35                  40                  45
Pro Ile Asn Leu Ser Thr Gly Glu Ser Ile Phe Ile Lys Val His Leu
    50                  55                  60
Thr Ser Leu Leu Phe Gln Arg Lys Tyr Thr Thr Lys Met Leu Arg Gln
```

65 70 75 80
Arg Arg Gly Ala Ala Xaa Ala Xaa Thr Pro Ala Arg Ser Ala Pro Thr
85 90 95
Arg Pro Thr Val Ala Pro Ala Arg Pro Ala Ala Ala Pro Ala Ala Gln
100 105 110
His His Gln Pro His Ser Thr Ala Ala His Pro Pro Ala Gln Ala Gln
115 120 125
Gln Ala Pro Pro Xaa Met Ala Pro Val Gln Gln Ser Ser Gly Pro Gly
130 135 140
Leu Phe Gly Gln Met Ala Ser Thr Ala Ala
145 150

<210> 37251
<211> 329
<212> PRT
<213> A.fumigatus

<400> 37251
Phe Gly Arg Thr Glu Asp Ile Ser Thr Pro Pro Ser Pro Leu Lys Gln
1 5 10 15
Met Asp Tyr Tyr Ala Glu Pro Ile Arg Ser Thr Thr Lys Val Ser Ile
20 25 30
Val Leu Glu Lys Pro Asp Asp Trp Trp Thr Trp Asn Ala Tyr Ile Thr
35 40 45
Gly Leu Ala Arg Thr Arg Gly Val Leu Asp Ile Leu His Gly Glu Arg
50 55 60
Pro Tyr Pro Val Pro Pro Ile Arg Pro Ile His Pro Leu Thr Leu Ala
65 70 75 80
Asn Gln Gln Ala Arg Thr Asn Pro Ala Glu Ser Gln Pro Asp Ser Glu
85 90 95
Arg Pro Gln Thr Thr Glu Ala Ser Gln Ser Asp Gly Ser Leu Thr Ala
100 105 110
Ala Ala Ala Pro Lys Ala Pro Ala Lys Ile Thr Glu Ala Glu Leu Ala
115 120 125
Leu Tyr Thr Glu Glu Leu Ser Ile Tyr Lys Glu Glu Lys Glu Gln Tyr
130 135 140
Arg Leu Asp Arg Leu Gly Leu Ala Ala Leu Trp Asn Thr Met Glu Gln
145 150 155 160
Thr Val Ala Arg Glu His Leu Gln Arg Leu Thr Ser Glu Ser Asp Asn
165 170 175
Glu Val Glu Arg Tyr Gln Lys Leu Lys Ala Asp Met Lys Pro Ser Ile
180 185 190
Glu Thr Arg Met Asn Gln Ile Glu Glu Lys Tyr Gln Lys Leu Ala Ala
195 200 205
Lys Pro Ala Asn Gln Ser Val Ser Ser Trp Leu Ser Glu Trp Gln Lys
210 215 220
Val Leu Ser Val Cys Ala Glu Leu Lys Met Thr Gln Tyr Thr Gly Tyr
225 230 235 240
Met Gly Thr Arg Ser Phe Leu Thr Ala Leu Lys Lys Ile Glu Pro Gln
245 250 255
Tyr Ala Asn Ile Arg Leu Asp Arg Leu Leu Glu Asp Asn Lys Leu Asn
260 265 270
Val Phe Asp Glu Ile Ser Arg Tyr Gln Arg His Trp Glu Ser Leu Ser
275 280 285
Gln Lys Glu Gln Lys Ser Ile Phe Thr Thr Phe Lys Gly Gln Ser Ser
290 295 300

```
Asn Gln Ser Asn Ser Asp Ser Ala Asn Gln Asn Arg Gly Ile Lys Arg
305                 310                 315                 320
Leu Lys Arg Asp Asp Cys Pro Cys Gly
                325
```

<210> 37252
<211> 444
<212> PRT
<213> A.fumigatus

<400> 37252

```
Gly Arg Cys His Cys Val Ser Ser Arg Met Glu Arg Arg Gly Arg Met
1               5                  10                  15
Ser Ser Pro Asn Asp Tyr Ser Pro Ser Glu Phe Leu Ile Ser Thr Gly
            20                  25                  30
Arg Gly Ser Thr Val Asn Cys Arg Lys Cys Ser Ile Ala Ala Arg Gly
        35                  40                  45
Ile Arg Pro Met Arg Ala Asp Glu Asn Ala Glu Arg Cys Glu Asp Tyr
    50                  55                  60
Leu Arg Asp Leu Leu Met Trp Arg Glu Thr Lys Thr Arg Ser Tyr Leu
65                  70                  75                  80
Leu Gln Ile Pro Thr Ser Gly Asn Ala Arg Lys Asn Ile Phe Ser Ser
                85                  90                  95
Gln Lys Met Tyr Arg Pro His Leu Phe Gln Ser Gln Thr Thr Gly Ser
            100                 105                 110
Asn Leu Pro Gly Ser Ile Ser Lys Thr Ser Cys Gly Asp Tyr Cys Thr
        115                 120                 125
Ser Ala Ile Arg Asn Gln Gly Pro Arg Phe Pro Thr Ile Asn Gly Arg
    130                 135                 140
Arg Ala Val Ile Met Thr Arg Pro Trp Ser Ile Trp Ser Ala Ser Gly
145                 150                 155                 160
Lys Ile Gly Ile Arg Ser Arg Pro Pro Gln Val Ser Arg Pro Pro Pro
                165                 170                 175
His Lys Tyr Tyr Thr Ile Gln Leu Gln Asp Lys Phe Arg Glu His Gly
            180                 185                 190
Leu Gln Ile Ile Val Lys Met Glu Asn Ile Glu Leu Thr Pro Asp Ser
        195                 200                 205
Gly Ser Tyr Lys Gly Thr Asp Trp Arg Met Glu Gly Gln Leu Asn Glu
    210                 215                 220
His Leu Val Ala Ala Ala Val Phe Ala Tyr Asp Val Ala Asn Ile Thr
225                 230                 235                 240
Glu Pro Arg Ile Ala Phe Arg Gln Asn Thr Lys Leu Asp Glu Arg Phe
                245                 250                 255
Tyr Arg Cys Ser Asp Asp Arg Glu Gln Met Arg Ile Val His Pro Arg
            260                 265                 270
His Asp Val Pro Ala Gln Gln Cys Gly Lys Tyr Gly Ser Thr Glu Phe
        275                 280                 285
Ala Ala Val Ala Glu Ile Leu Gly Phe Ser Thr Ala Asp Leu Asp Pro
    290                 295                 300
Cys Cys Tyr His Ala Val Lys Thr Trp Gln Asp Lys Gly Asn Ser Gln
305                 310                 315                 320
Gly Leu Thr Gly Ala Val Gly Thr Phe Pro Thr Phe Leu Glu His Arg
                325                 330                 335
Tyr Glu Pro Phe Ala Leu Ala Asp Pro Ser Arg Pro Gly Cys Phe Arg
            340                 345                 350
Phe Ile Val Leu Tyr Leu Val Asp Pro His Tyr Arg Val Cys Ser Thr
```

```
        355                 360                 365
Arg Asn Val Pro Pro Gln Gln His His Trp Trp Ala Glu Ser Val Ser
    370                 375                 380
His Asn Leu Ala Ala Ala Gly Leu Pro Gln Glu Ile Val Asp Glu Ile
385                 390                 395                 400
Met Gln Gly Thr Gly Ser Trp Pro Met Gly Leu Pro Glu Ala Arg Arg
                405                 410                 415
His Arg Arg Glu Phe Leu Lys Glu His Arg Trp Asn Asn Leu Val Arg
            420                 425                 430
Ile Tyr Cys Met Arg Arg Pro Ser Phe Asp Cys Tyr
        435                 440
```

<210> 37253
<211> 66
<212> PRT
<213> A.fumigatus

<400> 37253

```
His Gln Leu Phe Ile Ser Ala Val Cys Leu Glu Ser Val Leu Arg Ser
1               5                   10                  15
Gln Glu Ile Arg Glu Leu Lys Cys Leu His Val Phe His Arg Glu Cys
            20                  25                  30
Leu Asp Lys Trp Tyr Leu Gln Asp His Phe Asn Cys Pro Leu Cys His
        35                  40                  45
Arg Ala Tyr Tyr Val Gln Glu Ser Arg Pro Ser His Asp Phe Val Trp
    50                  55                  60
Met Val
65
```

<210> 37254
<211> 86
<212> PRT
<213> A.fumigatus

<400> 37254

```
Arg Ser Asp Ser Cys Ser Gly Cys Trp Gly Ile Gly Leu Gly Glu Ser
1               5                   10                  15
Thr Pro Ser Tyr Pro Ala Arg Ile Leu Leu Cys Ala Ser Glu Ser Phe
            20                  25                  30
Pro Thr Pro Leu Arg Gly His Phe Met Glu Phe Val Ala Ala Val Gly
        35                  40                  45
Lys Ala Gly Ala Ala Ile Gly Thr Glu Val Phe Thr Pro Pro Gln Lys
    50                  55                  60
Ser Leu Asp Ser Ile Phe Thr Ser Pro Val Val Leu Glu Gly Val Ile
65                  70                  75                  80
Ser Lys Gln Trp Leu Thr
                85
```

<210> 37255
<211> 261
<212> PRT
<213> A.fumigatus

<400> 37255

```
Arg Leu Thr Gly Gly Ser Ala Ser Ser Pro Gly Ser Asn Arg Glu His
1               5                   10                  15
```

```
Gly Arg Phe Arg Thr Thr Val Glu Pro Ala Ser Ala Leu Pro Gly Tyr
            20                  25                  30
Pro Gly Ser Thr Ser Tyr Ser Thr Val Leu Ala Glu His Arg Ser Asp
        35                  40                  45
Ile Pro Phe Glu Val Asp Asn Ser Ser Ala Ala Ala Val Ser Thr Arg
    50                  55                  60
Ser Ile Asp Ser Asp Arg Leu Gln Met Gly Ser Asp Met Leu Arg Leu
65                  70                  75                  80
Leu Tyr Asp Leu Arg Val Cys Asp Ile Met Ile Arg Lys Tyr His Ala
                85                  90                  95
Arg Thr Val Ile Thr Ile Val Pro Lys Ile Val Ile Tyr Ser Ile Val
            100                 105                 110
Glu Ser Ile Arg Arg Ile Phe Asp Ser Leu Asp Ala Asn Asp Phe Asp
        115                 120                 125
Ser Gln Phe Gln Asp Leu Val Asn Gln Ile Phe Gln Asn Thr Ser Arg
    130                 135                 140
Pro Leu Thr Ile His Gly Ser Met Thr Val Glu Gln Tyr Leu Ser Ser
145                 150                 155                 160
Phe Thr Gly Arg Asn Ser Arg Trp Glu Ala Leu Gly Asn Ile Phe Ala
                165                 170                 175
Ile Thr Gly Leu Ala Leu Met Ser Thr Pro Asp Ser Asp Pro Asp Phe
            180                 185                 190
Thr Gln Ala Ala Pro Asp Ser Glu Ala Lys Asp Arg Leu Arg Ala Gln
        195                 200                 205
Ile Val Glu Ala Ser Gly Ile Cys Leu Gly Phe Cys Asp Gln Ala Ser
    210                 215                 220
Ser Val Asn Glu Leu Leu Gly Phe Tyr Gln Tyr Asn Asp Val Met Leu
225                 230                 235                 240
Arg Thr Gln Gln Tyr Gly Asp Ser Ser Met Thr Ile Tyr Ser Leu Arg
                245                 250                 255
Gln Leu Met Val Cys
            260
```

<210> 37256
<211> 121
<212> PRT
<213> A.fumigatus

<400> 37256

```
Phe His Cys His Gln Thr Phe Leu Met Glu Asp Ile Phe Lys Leu Pro
1               5                   10                  15
Arg Met Val Glu Val Ala Gly Gln Thr Arg Ser Pro Ala Val Arg Arg
            20                  25                  30
Asn Gly Thr Leu Gln Ser Cys Glu Pro Cys Arg Lys Ala Lys Leu Arg
        35                  40                  45
Cys Asp His Gly Arg Pro Val Cys Gly Arg Cys Thr Ala Lys Asn Ile
    50                  55                  60
Ala Ser Arg Cys Phe Tyr His Pro Ala Pro Met Thr Lys Arg Thr Val
65                  70                  75                  80
Ala Ser Arg Ala Ser Pro Ile Glu Ala Ser Arg Arg Leu Thr Ser Gln
                85                  90                  95
Pro Ser Ser Lys Ser Gly Leu Arg Pro Pro Ser Cys Asp Pro Gly Trp
            100                 105                 110
Ala Met Met Cys Val Tyr Gly Lys Asp
        115                 120
```

<210> 37257
<211> 287
<212> PRT
<213> A.fumigatus

<400> 37257
Leu Gln Val Leu Thr Cys Arg Arg Tyr Leu Glu Leu Val Arg Thr Ile
1 5 10 15
Ile Lys Arg Tyr Thr Leu Glu Pro Ala Gly Ser His Gly Val Trp Gly
20 25 30
Leu Asp Asp His Ser Phe Ile Pro Tyr Ile Leu Gly Ser Ala Gln Leu
35 40 45
Ala Pro Ala Ile Ser Glu Thr Asp Pro Thr Pro Glu Glu Gly Ser Leu
50 55 60
Pro Gly Ala Pro Ser Pro Asn Gly Val Thr Lys Ala His Ile Val Glu
65 70 75 80
Arg Glu Arg Leu Thr Asn Met Tyr Phe Ser Ala Ile Gly Phe Ile Tyr
85 90 95
Asp Val Lys Lys Gly Pro Phe Trp Glu His Ser Pro Met Leu Tyr Asp
100 105 110
Ile Ser Gly Ile Gln Ala Gly Trp Gly Lys Ile Asn Lys Val Ser Leu
115 120 125
Val Ala Leu Ala Gly Asn Asp Gln Leu Leu Ile Ile Gln Gly Met Ile
130 135 140
Lys Met Tyr Asn Ala Glu Val Leu Ser Lys Phe Pro Val Val Gln His
145 150 155 160
Phe Pro Phe Gly Ser Leu Phe Ser Trp Asp Arg Asp Pro Asn Ala Val
165 170 175
Pro Pro Pro Thr Ser Gly His Met Ser Thr Thr Gln Ser Gln Ser Arg
180 185 190
Gly Pro Ala Val Pro Ser Ala Gly Gln Thr Pro Pro Ser Gly Thr Arg
195 200 205
Ala Pro Trp Ala Thr Ala Thr Gln Ala Ala Pro Pro Ala Gly Ala Gly
210 215 220
Thr Ala Ala Pro Trp Ala Ala Lys Arg Asp Gly Cys Thr Pro Gly Lys
225 230 235 240
Pro Pro Thr Ser Leu Pro Asp Thr Ser Arg Leu Pro Pro Gly Pro Met
245 250 255
Ala Pro Thr Arg Ala Pro Trp Ala Ala Ser Ser Thr Gly Gln Ala Pro
260 265 270
Gly Gly Asp Pro Thr His Val Pro Thr Lys Ala Pro Trp Ala Lys
275 280 285

<210> 37258
<211> 169
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (43),(100)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37258
Phe Ala Leu Tyr His Leu Leu Gly Gln Asn Pro Pro Cys Pro Pro Ala
1 5 10 15

```
Gly Tyr Pro Pro Arg Ser Pro Pro Pro Ala Gln Ser Pro Ser Ser Ser
            20                  25                  30
Tyr Pro Ser Ala Pro Arg Pro Ser Pro Arg Xaa Leu Arg Ala Pro Ser
        35                  40                  45
Ala Pro Pro Gly Thr Ser Ser Ala Ala Val Trp Thr Ser His Thr Asp
    50                  55                  60
Pro Pro Ser Leu Tyr Ser Val Ala Phe Ala Asn Pro Gln Ser Ala Thr
65                  70                  75                  80
Phe Pro Ser Pro Pro Ala Ala Tyr Pro Pro Pro Phe Pro Pro Thr Ser
                85                  90                  95
Gln Thr His Xaa Pro Ser Pro Ser Asp Pro Pro Pro Pro Pro Arg Ser Pro
            100                 105                 110
Ile Ser Arg Leu His Pro Arg Tyr Pro Ala Ser Ser Arg Pro Gln Gln
        115                 120                 125
Gln His Thr Pro Tyr Ser Pro Asp Pro Ser Glu Ser Gln Ser Ile Pro
    130                 135                 140
Arg Thr Pro His Ala Ser Ser Gly Asn Tyr Thr Pro Ala Ser Asn Ser
145                 150                 155                 160
Ser Ser Arg Pro Ser Phe Ser Arg Arg
                165
```

<210> 37259
<211> 228
<212> PRT
<213> A.fumigatus

<400> 37259

```
Phe His Ser Ser Lys Asn Leu Met Ala Asn Ser Phe Pro Leu Arg Val
1               5                   10                  15
Leu Pro Thr Ile Asp Pro Ser Ala Gly His Thr Phe Ile Thr Pro Ser
            20                  25                  30
Lys Arg Ile His Glu Ser Glu Asp Val Ser Glu Phe Leu Ile Ser Lys
        35                  40                  45
Ala Tyr Val Asp Ile Met Thr Phe Leu Leu Gln Leu Asn Arg Ala Met
    50                  55                  60
Ile Pro Val Lys Leu Ala Asp Gly Thr Val Gln Ser Trp Pro Ile Asn
65                  70                  75                  80
Thr Asp Ala Val Glu Phe Ser Ala Pro Val Arg Gln Leu Gln Gln Leu
                85                  90                  95
Leu Thr Lys Leu Glu Glu Leu Leu Ala Glu Ala Pro Pro Asp Thr Gly
            100                 105                 110
Pro Arg Arg Phe Gly Asn Ile Ser Phe Arg Arg Trp Tyr Glu Leu Val
        115                 120                 125
Glu Ser Arg Ala Ser Glu Leu Leu Gly Glu Cys Leu Pro Ser Glu Leu
    130                 135                 140
Leu Gln Ala Lys Ser Ser Asp Pro Asn Ser Val Thr Ala Glu Ala Glu
145                 150                 155                 160
Leu Lys Ala Tyr Phe Leu Gly Ser Trp Gly Ser Pro Gln Arg Leu Asp
                165                 170                 175
Tyr Gly Thr Gly His Glu Leu Ser Phe Leu Ala Phe Leu Ala Gly Ile
            180                 185                 190
Trp Lys Leu Asn Gly Phe Pro Lys Thr Thr Pro Gly Val Glu Glu Arg
        195                 200                 205
Ala Ile Val Leu Gly Val Ile Gln Pro Tyr Val Trp Pro Gly Cys Asp
    210                 215                 220
Asn Cys Lys Ser
```

225

<210> 37260
<211> 82
<212> PRT
<213> A.fumigatus

<400> 37260
Gly Pro Gly Gly Pro Ile Cys Trp Thr Asp Ala Ala Val Arg Asp Gln
1 5 10 15
Gly Ser Leu Gly Asn Cys Tyr Ser Gly Ser Pro Thr Gly Trp Ser Arg
20 25 30
Asp Arg Arg Ala Met Gly Ser Lys Glu Arg Arg Met His Ala Arg Lys
35 40 45
Thr Thr His Phe Pro Ser Arg His Val Thr Thr Ala Ser Trp Ala Tyr
50 55 60
Gly Pro Tyr Gln Gly Ser Val Gly Ser Ile Ile Asn Arg Ala Gly Thr
65 70 75 80
Arg Arg

<210> 37261
<211> 251
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (135),(192)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37261
Leu Thr Ser Ala Gly Gly Ala Thr Gly Leu Ser Gly Ser Thr Ala Ala
1 5 10 15
Leu Met Ala Gly Gly Pro Ser Ser Ala Ala Ser Thr Pro Leu Val Asp
20 25 30
Ala Val Phe Leu Leu Leu Thr Ser Gly Arg His Ala Leu Pro Ser Trp
35 40 45
Leu Arg Asn Gly Ser Thr Ala Ala Arg Val Phe Pro Val Ser Ser Leu
50 55 60
Arg Asn Ser Ala Leu Arg Ser Ala Asn Val Phe Ala Thr Ser Arg Phe
65 70 75 80
Pro Phe Arg Glu Ser Asn Asn Gly Arg Arg Val Ile Cys Val Val
85 90 95
Ser Ser Pro Arg Pro Lys Ser Thr Met Pro Ala Arg Arg Leu Ser Ser
100 105 110
Ser Val Ser Ser Thr Ser Ser Ile Pro Lys Leu Ile Leu Ser Leu Ser
115 120 125
Ala Ser Ala Phe Ala Ser Xaa Pro Ser Arg Ala Phe Arg Ser Thr Arg
130 135 140
Asn Val Leu Arg Ser Arg Leu Asp Leu Ser Tyr Gly Ser Ser Gln Ser
145 150 155 160
Leu Phe Cys Arg Phe Cys Lys Ser Ser Ile Arg Asp Leu Ser Val Ser
165 170 175
Ala Arg Arg Leu Ser Ser Thr Phe Pro Ser Asn Phe Ala Asn Ala Xaa
180 185 190

```
Ser Phe Ala Phe Arg Ser Ser Pro Thr Ala Ile Ser His Ile Pro Pro
        195                 200                 205
Ala Ser Pro Val Ser Arg Phe Leu Pro Pro Ser Thr Thr Thr Tyr Ala
    210                 215                 220
Val Phe Ala Gly Ser Val Arg Ile Ser Ile His Pro Pro His Ala Pro
225                 230                 235                 240
Cys Phe Ile Arg Lys Leu Tyr Thr Gly Val Glu
                245                 250
```

<210> 37262
<211> 561
<212> PRT
<213> A.fumigatus

<400> 37262

```
Ala Leu Ala Leu Tyr Pro Glu Trp Leu Arg Pro Gly Phe Thr Ser Glu
1               5                   10                  15
Arg His Gly Lys Asn Leu Ile Ser Trp Leu Phe Phe Ala Asp Ala Asp
            20                  25                  30
His Glu Gln Val Thr Arg Ile Val Ala Ala Trp Tyr Lys Met Gly Gln
        35                  40                  45
Asp Gly Asp Phe Pro Leu Pro Asn Phe Ser Ser Asn Thr Gln Asp Ala
    50                  55                  60
Thr Gly Pro Leu Tyr Pro Gly Ala Leu Phe Ser Pro Ser Gly Val Val
65                  70                  75                  80
Asn Gln Tyr Val Asn Val Gln Ala Asp His Asn Ile Thr Ala Arg Ala
                85                  90                  95
Ile Ala Arg Asp Ala Ile Thr Leu Leu Lys Asn Asp Asp Asn Ile Leu
            100                 105                 110
Pro Leu Lys Lys Asp Asp Ala Leu Lys Val Phe Gly Thr Asp Ala Gly
        115                 120                 125
Pro Asn Pro Asp Gly Leu Asn Ser Cys Ala Asp Met Gly Cys Asn Lys
    130                 135                 140
Gly Val Leu Thr Met Gly Trp Gly Ser Gly Thr Ser Arg Leu Pro Tyr
145                 150                 155                 160
Leu Val Thr Pro Gln Glu Ala Ile Ala Asn Ile Ser Ser Asn Ala Ala
                165                 170                 175
Phe Phe Ile Thr Asp Lys Phe Pro Ser Asn Val Ala Val Ser Ser Gly
            180                 185                 190
Asp Val Ala Val Val Phe Ile Ser Ala Asp Ser Gly Glu Asn Tyr Ile
        195                 200                 205
Thr Val Glu Gly Asn Pro Gly Asp Arg Thr Ser Ala Gly Leu Asn Ala
    210                 215                 220
Trp His Asn Gly Asp Lys Leu Val Lys Asp Ala Ala Ala Lys Phe Ser
225                 230                 235                 240
Lys Val Val Val Val Val His Thr Val Gly Pro Ile Leu Met Glu Glu
                245                 250                 255
Trp Ile Asp Leu Pro Ser Val Lys Ala Val Leu Val Ala His Leu Pro
            260                 265                 270
Gly Gln Glu Ala Gly Trp Ser Leu Thr Asp Val Leu Phe Cys Asp Tyr
        275                 280                 285
Ser Pro Ser Gly His Leu Pro Tyr Thr Ile Pro Arg Ala Glu Ser Asp
    290                 295                 300
Tyr Pro Ser Ser Val Gly Leu Leu Ser Gln Pro Ile Val Gln Ile Gln
305                 310                 315                 320
Asp Thr Tyr Thr Glu Gly Leu Tyr Ile Asp Tyr Arg His Phe Leu Lys
```

```
                325                 330                 335
Ala Asn Ile Thr Pro Arg Tyr Pro Phe Gly His Gly Leu Ser Tyr Ser
            340                 345                 350
Thr Phe Ser Phe Ser His Pro Thr Leu Ser Val Arg Thr Ala Leu Tyr
        355                 360                 365
Ser Thr Tyr Pro Pro Thr Arg Pro Pro Lys Gly Pro Thr Ser Ile Tyr
    370                 375                 380
Pro Thr Ala Ile Pro Asp Pro Ser Glu Val Ser Trp Pro Lys Asn Phe
385                 390                 395                 400
Asp Arg Ile Trp Arg Tyr Leu Tyr Pro Tyr Leu Asp Asp Pro Ala Ser
                405                 410                 415
Val Gly Lys Asn Ser Ser Lys Thr Tyr Pro Tyr Pro Ala Gly Tyr Thr
            420                 425                 430
Thr Val Pro Lys Leu Ala Pro Arg Ala Gly Gly Ala Glu Gly Gly Asn
        435                 440                 445
Pro Ala Leu Phe Asp Val Ala Phe Ala Val Ser Val Thr Val Thr Asn
    450                 455                 460
Thr Gly Ser Arg Pro Gly Arg Ala Val Ala Gln Leu Tyr Val Glu Leu
465                 470                 475                 480
Pro Asp Ser Leu Gly Glu Thr Pro Ser Arg Gln Leu Arg Gln Phe Ala
                485                 490                 495
Lys Thr Lys Thr Leu Ala Pro Gly Thr Ser Glu Thr Leu Thr Met Glu
            500                 505                 510
Ile Thr Arg Lys Asp Ile Ser Val Trp Asp Val Val Val Gln Asp Trp
        515                 520                 525
Lys Ala Pro Val Arg Gly Glu Gly Val Lys Ile Trp Leu Gly Glu Ser
    530                 535                 540
Val Leu Asp Met Arg Ala Val Cys Glu Val Gly Gly Ala Cys Arg Val
545                 550                 555                 560
Ile
```

<210> 37263
<211> 167
<212> PRT
<213> A.fumigatus

<400> 37263

```
Ser Phe Gln Pro Arg Gly Glu Asp Leu Leu Asn Glu Ile Leu Lys Asp
1               5                   10                  15
Glu Leu Gly Phe Gln Gly Phe Val Met Thr Asp Trp Leu Gly Gln Tyr
            20                  25                  30
Gly Gly Val Ser Ser Ala Leu Ala Gly Leu Asp Met Ala Met Pro Gly
        35                  40                  45
Asp Gly Ala Ile Pro Leu Leu Gly Thr Ala Tyr Trp Gly Ser Glu Leu
    50                  55                  60
Ser Arg Ser Ile Leu Asn Gly Ser Val Pro Val Ser Arg Leu Asn Asp
65                  70                  75                  80
Met Val Lys Ile Ser Tyr Arg Gly Cys Ser Ser Gln Met Leu Ile Met
                85                  90                  95
Ser Arg Ser Pro Glu Ser Trp Arg His Gly Thr Arg Trp Ala Arg Met
            100                 105                 110
Glu Thr Ser Arg Cys Pro Thr Ser Arg Ala Thr His Lys Met Arg Arg
        115                 120                 125
Ala Leu Cys Thr Arg Val Leu Phe Ser Leu Arg Leu Val Leu Ser Thr
    130                 135                 140
```

```
Ser Met Ser Thr Cys Arg Pro Ile Thr Thr Leu Leu Pro Glu Gln Ser
145                 150                 155                 160
Arg Glu Met Pro Ser Leu Cys
                165
```

<210> 37264
<211> 220
<212> PRT
<213> A.fumigatus

<400> 37264

```
Arg Thr Phe Ser Ser Ala Thr Thr Ala Pro Ala Ala Ile Ser His Thr
1               5                   10                  15
Arg Ser His Ala Pro Asn Gln Thr Ile Leu Leu Ala Ser Val Ser Ser
            20                  25                  30
Arg Ser Leu Leu Ser Lys Ser Lys Thr Pro Thr Pro Arg Ala Cys Thr
        35                  40                  45
Ser Thr Thr Ala Thr Ser Ser Lys Pro Thr Ser Pro His Ala Ile Pro
    50                  55                  60
Ser Ala Thr Asp Ser Pro Thr Ala Pro Ser Ala Ser Pro Ile Pro Arg
65                  70                  75                  80
Cys Pro Ser Ala Pro His Ser Thr Ala Leu Thr His Arg Leu Gly Pro
                85                  90                  95
Pro Lys Ala Gln Pro Gln Ser Thr Pro Pro Pro Ser Pro Thr Pro Pro
            100                 105                 110
Arg Tyr Pro Gly Pro Lys Thr Ser Thr Ala Phe Gly Ala Thr Ser Ile
        115                 120                 125
His Thr Ser Thr Thr Pro Pro Ala Leu Gly Arg Thr Pro Ala Arg Pro
    130                 135                 140
Thr His Thr Arg Pro Gly Thr Arg Pro Ser Pro Ser Leu Pro Arg Ala
145                 150                 155                 160
Pro Val Ala Gln Arg Glu Ala Thr Arg Pro Ser Ser Thr Trp Pro Ser
                165                 170                 175
Leu Ser Ala Ser Pro Ser Gln Thr Arg Ala Ala Asp Pro Ala Ala Pro
            180                 185                 190
Ser Leu Asn Phe Thr Ser Asn Tyr Gln Ile Val Trp Ala Arg Arg His
        195                 200                 205
Leu Ala Ser Cys Asp Ser Leu Arg Arg Arg Arg Leu
    210                 215                 220
```

<210> 37265
<211> 360
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (162),(220)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37265

```
Leu Thr Ala Thr Gln Ile Trp Asp Gly Pro Leu Pro Pro Leu Ser Tyr
1               5                   10                  15
Ser Ser Ser His Arg Asn Pro Lys Leu Thr Thr Asp Asn Ser Tyr Val
            20                  25                  30
Pro Pro Asp Gln Glu Gly Ile Thr Thr Gly Asn Lys Leu Ala Gly Lys
```

```
        35                  40                  45
His Pro Leu Gly Ala Arg Ala Arg His Leu Arg Thr Ser Gly Ala Leu
    50                  55                  60
Ile Val Arg Phe Glu Met Pro Phe Ala Val Trp Cys Thr Thr Cys Lys
65                  70                  75                  80
Pro His Glu Thr Leu Ile Gly Gln Gly Val Arg Phe Asn Ala Glu Lys
                85                  90                  95
Arg Lys Val Gly Asn Tyr Tyr Ser Thr Pro Val Tyr Ser Phe Arg Met
            100                 105                 110
Lys His Gly Ala Cys Gly Gly Trp Ile Glu Ile Arg Thr Asp Pro Ala
        115                 120                 125
Asn Thr Ala Tyr Val Val Val Glu Gly Gly Arg Lys Arg Asp Thr Gly
    130                 135                 140
Asp Ala Gly Gly Ile Trp Glu Ile Ala Val Gly Glu Asp Arg Lys Ala
145                 150                 155                 160
Lys Xaa Asp Ala Phe Ala Lys Leu Glu Gly Lys Val Glu Asp Lys Arg
                165                 170                 175
Arg Ala Glu Thr Glu Arg Ser Arg Ile Glu Asp Leu Gln Lys Arg Gln
            180                 185                 190
Asn Arg Asp Trp Glu Asp Pro Tyr Glu Arg Ser Arg Arg Leu Arg Arg
        195                 200                 205
Thr Phe Arg Val Glu Arg Lys Ala Arg Glu Gly Xaa Glu Ala Lys Ala
    210                 215                 220
Glu Ala Leu Arg Asp Lys Met Ser Leu Gly Ile Glu Leu Val Glu Glu
225                 230                 235                 240
Thr Glu Glu Asp Ser Leu Arg Ala Gly Met Val Asp Phe Gly Arg Gly
                245                 250                 255
Asp Asp Thr Thr Gln Ile Thr Arg Arg Arg Pro Leu Phe Asp Ser Arg
            260                 265                 270
Asn Gly Lys Arg Asp Val Ala Asn Thr Leu Ala Asp Arg Lys Ala Leu
        275                 280                 285
Phe Arg Ser Glu Leu Thr Gly Asn Thr Arg Ala Ala Val Asp Pro Phe
    290                 295                 300
Leu Asn Gln Asp Gly Ser Ala Trp Arg Pro Glu Val Lys Arg Arg Lys
305                 310                 315                 320
Thr Ala Ser Thr Lys Gly Val Asp Ala Ala Asp Asp Gly Pro Pro Ala
                325                 330                 335
Ile Lys Ala Ala Val Glu Pro Asp Arg Pro Val Ala Pro Pro Ala Leu
            340                 345                 350
Val Asn Tyr Ala Ser Asp Ser Asp
        355                 360
```

<210> 37266
<211> 229
<212> PRT
<213> A.fumigatus

<400> 37266

```
Leu Thr Phe Ser Lys Leu His Tyr Leu Gln Lys Ala His Glu Lys Ala
1               5                   10                  15
Ser Ile Ser Tyr Arg Leu Lys Gly Val Thr Arg His Ile Asn Glu Thr
            20                  25                  30
Trp Ala Arg Asn Gly Asp Asp Ser Ala Met Lys Lys Ala Leu Arg Arg
        35                  40                  45
Gly Gly Tyr Ser Thr Leu Asn Val Tyr Phe Gln Thr Asn Leu Gln Pro
    50                  55                  60
```

```
Pro Ser Thr Thr Asp Phe Ala Arg Trp Thr Ser Asp Gly Asp Asn Arg
65                  70                  75                  80
His Ala Tyr Asn Ser Asp Leu Ala Pro Pro Ser Val Leu Gly Phe Cys
                85                  90                  95
Thr Leu Pro Asp Pro Ser Ile Asn Ser Ser Ser Pro Arg Ser Ser Tyr
            100                 105                 110
Ser Lys Asp Gly Cys Asn Val Leu Ala Lys Thr Met Pro Gly Gly Pro
        115                 120                 125
Met Thr His Tyr Asn Arg Gly Gly Thr Ala Ile His Glu Ile Gly His
    130                 135                 140
Trp Asn Gly Leu Leu His Thr Phe Glu Gly Glu Ser Cys Ser Glu Asp
145                 150                 155                 160
Asn Ala Gly Asp Tyr Ile Ala Asp Thr Pro Gln Gln Ser Val Pro Thr
                165                 170                 175
Asp Gly Cys Pro Ser Gln Lys Asp Ser Cys Pro Asp Ser Pro Gly Leu
            180                 185                 190
Asp Asp Ile His Asn Phe Met Asp Tyr Ser Ser Asp Asp Cys Tyr Ala
        195                 200                 205
Ser Phe Thr Ser Asn Gln Leu Lys Arg Met Arg Asp Met Trp Phe Ser
    210                 215                 220
Met Arg Lys Gly Lys
225
```

<210> 37267
<211> 80
<212> PRT
<213> A.fumigatus

```
<400> 37267
Ser Asp Ile Pro Val Ser Asn Ser Asn Lys Met Tyr Leu Ile Asn Pro
1               5                   10                  15
Gln Gln Pro Ser Glu Ile Glu Ala Lys Met Leu Cys Asp Lys Leu Pro
            20                  25                  30
Gln His Asp Val Ala Phe Gln Phe Leu Arg Leu Cys Leu Ala Tyr Tyr
        35                  40                  45
Lys Ser His Val Glu Leu Pro Ser Ser Met Ser Cys Asp Gly Phe Thr
    50                  55                  60
Arg Pro Phe Ser Leu Cys His Trp Trp Ser Arg Cys Ser Ile Gln Gly
65                  70                  75                  80
```

<210> 37268
<211> 207
<212> PRT
<213> A.fumigatus

```
<400> 37268
Ser Leu Ile Asp Arg Arg Pro Val Lys Leu Pro Asp Val Tyr Leu Arg
1               5                   10                  15
Pro Pro Leu Asp Gly Lys Arg Val Pro Gly Glu Val Glu Ile His Gln
            20                  25                  30
Asn Gly Leu Arg Tyr Met Ser Pro Phe Arg Asn Glu His Val Asp Val
        35                  40                  45
Leu Phe Ser Asn Val Lys His Leu Phe Phe Gln Pro Cys Ala His Glu
    50                  55                  60
Leu Ile Val Leu Ile His Val His Leu Lys Thr Pro Ile Met Ile Gly
65                  70                  75                  80
```

```
Lys Arg Lys Thr Arg Asp Val Gln Phe Tyr Arg Glu Ala Thr Glu Met
                85                  90                  95
Gln Phe Asp Glu Thr Gly Asn Arg Arg Arg Lys His Arg Tyr Gly Asp
            100                 105                 110
Glu Glu Glu Phe Glu Ala Glu Gln Glu Glu Arg Arg Arg Arg Ala Ala
        115                 120                 125
Leu Asp Arg Glu Phe Lys Ala Phe Ala Glu Lys Ile Ala Asp Ala Gly
    130                 135                 140
Lys Asp Glu Gly Val Asp Val Asp Ile Pro Phe Arg Glu Ile Gly Phe
145                 150                 155                 160
Thr Gly Val Pro Asn Arg Ser Asn Val Leu Ile Gln Pro Thr Thr Asp
                165                 170                 175
Ala Leu Val Gln Leu Thr Glu Pro Pro Phe Leu Val Ile Thr Leu Asn
            180                 185                 190
Glu Ile Glu Ile Ala His Leu Glu Arg Val Gln Val Arg Phe Tyr
        195                 200                 205

<210> 37269
<211> 179
<212> PRT
<213> A.fumigatus

<400> 37269
Gly Ser Thr Ser Val Met Thr Asn Ile Tyr Cys Tyr Ala Asp Asp Leu
1               5                   10                  15
Gln Phe Gly Leu Lys Asn Phe Asp Leu Val Phe Val Phe Lys Asp Phe
            20                  25                  30
His Arg Ala Pro Val His Ile Asn Thr Ile Pro Val Glu Ser Leu Glu
        35                  40                  45
Gly Val Lys Asp Trp Leu Asp Ser Val Asp Ile Ala Phe Thr Glu Gly
    50                  55                  60
Pro Leu Asn Leu Asn Trp Thr Thr Ile Met Lys Thr Val Val Ser Asp
65                  70                  75                  80
Pro Tyr Gly Phe Phe Ala Asp Gly Gly Trp Ser Phe Leu Ala Ala Glu
                85                  90                  95
Ser Asp Ser Glu Asp Gly Ser Glu Glu Glu Glu Glu Ser Ala Phe Glu
            100                 105                 110
Leu Ser Glu Ser Glu Leu Ala Ala Ala Asp Glu Ser Ser Glu Asp Asp
        115                 120                 125
Ser Glu Phe Asp Asp Asp Ala Ser Ala Glu Ala Ser Asp Phe Ser Ala
    130                 135                 140
Glu Glu Glu Ser Gly Glu Asp Trp Asp Glu Leu Glu Arg Lys Ala Lys
145                 150                 155                 160
Lys Lys Asp Arg Glu Gly Gly Leu Asp Asp Glu Glu His Gly Lys Lys
                165                 170                 175
Arg Lys Arg

<210> 37270
<211> 285
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1)
```

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37270

```
Xaa Leu Lys Gly Arg Lys Ser Ser Thr Tyr Ser Met Ile Ile Thr Asp
1               5                  10                  15
Thr Val Arg Val Gly Glu Asn Gly Pro His Val Phe Thr Lys Asp Ala
            20                  25                  30
Gly Leu Asp Met Asp Ser Val Ser Phe Tyr Phe Gly Asp Glu Glu Glu
        35                  40                  45
Pro Gln Lys Pro Ile Lys Glu Lys Lys Glu Ala Lys Thr Ser Ala Ile
    50                  55                  60
Ala Ser Arg Asn Ile Thr Arg Thr Lys Leu Arg Ala Glu Arg Pro Thr
65                  70                  75                  80
Gln Ile Asn Glu Gly Ala Glu Ala Arg Arg Arg Glu His Gln Lys Glu
                85                  90                  95
Leu Ala Ala Lys Lys Thr Arg Glu Gly Leu Asp Arg Phe Ala Gly Thr
            100                 105                 110
Thr Gly Asp Asp Asn Gly Val Thr Gln Lys Lys Phe Lys Arg Phe Glu
        115                 120                 125
Ser Tyr Lys Arg Asp Asn Gln Leu Pro Thr Lys Val Arg Glu Leu Thr
    130                 135                 140
Ile Tyr Val Asp Gln Lys Ala Ser Thr Val Ile Val Pro Ile Met Gly
145                 150                 155                 160
Arg Pro Val Pro Phe His Ile Asn Thr Ile Lys Asn Ala Ser Lys Ser
                165                 170                 175
Asp Glu Gly Glu Tyr Ala Tyr Leu Arg Ile Asn Phe Leu Ser Pro Gly
            180                 185                 190
Gln Gly Val Gly Arg Lys Asp Asp Gln Pro Phe Glu Asp Leu Ser Ala
        195                 200                 205
His Phe Leu Arg Asn Leu Thr Leu Arg Ser Lys Asp Asn Glu Arg Leu
    210                 215                 220
Ala Gln Val Ala Gln Asp Ile Thr Glu Leu Arg Lys Asn Ala Leu Arg
225                 230                 235                 240
Arg Glu Gln Glu Lys Lys Glu Met Glu Asp Val Val Glu Gln Asp Lys
                245                 250                 255
Leu Ile Glu Ile Arg Ser Thr Ser Leu Arg Arg Thr Ile Leu Leu Pro
            260                 265                 270
Met Leu Ile Thr His Arg Pro Pro Ser Cys Glu Val Thr
        275                 280                 285
```

<210> 37271
<211> 416
<212> PRT
<213> A.fumigatus

<400> 37271

```
Leu Ser Val Ser Tyr Ile Gln Gln Ser Arg Ser Arg Phe Gln Val Lys
1               5                  10                  15
Ala Ser Lys Thr Ser Gln Lys Phe Asp Glu Ala Leu Val Glu Leu Ser
            20                  25                  30
Ala Ile Met Ala Ala Thr Ala Thr Ile Pro Lys Pro Lys Lys Pro Ser
        35                  40                  45
Leu Lys Gly Pro Glu Leu Ala Thr Phe Ile Ser Gln Ala Leu Glu Val
    50                  55                  60
His Asn Ser Ile Leu Asn Cys Glu Ala Tyr Pro Glu Ser Trp Phe Ser
65                  70                  75                  80
```

```
Val His Val Tyr Asn His Arg Ala Thr Val Lys Ser Leu Glu Phe Leu
                85                  90                  95
Ala Thr Leu Leu Thr Ser Lys Phe Leu Pro Ala Pro Asp Asp Ala Glu
            100                 105                 110
Ser Phe Asp Thr Arg Leu Trp Glu Ser Phe Phe Met Thr Leu Leu Lys
        115                 120                 125
Val Val Ser Ser Asp Ala Leu Ala Leu Glu Thr Phe Pro Glu Gln Lys
    130                 135                 140
Arg Arg Ala Val Trp Lys Ile Ala Gly Asp Val Arg Glu Gln Gly Ala
145                 150                 155                 160
Glu Leu Leu Arg Ser Ser Trp Glu Ala Ile Gly Trp Glu Thr Thr Asp
                165                 170                 175
Glu Asp Arg Glu Leu Tyr Gly Leu Arg Lys Leu Gly Gly Tyr Gln Val
            180                 185                 190
Gln Tyr Val Pro Gly Leu Val Ala Pro Ile Ile Gly Leu Cys Leu Ser
        195                 200                 205
Val His Glu Gly Leu Arg His Val Ala Val Glu Ile Leu Arg Thr Met
    210                 215                 220
Ile Leu Ser Glu Trp Gly Leu Asn Gln Glu Leu Ser Ile Val Glu Thr
225                 230                 235                 240
Glu Ile Ile Ser Ser Leu Asp His Leu Phe Lys Thr Lys Lys Met Asn
                245                 250                 255
Glu Ser Ile Ile Gln Lys Leu Phe Val Ser Glu Leu Leu Glu Tyr Phe
            260                 265                 270
Glu Gly Cys Thr Ser Leu Asp Glu Asp Leu Ser Asp Ala Val Lys Gly
        275                 280                 285
Leu Ile Ala Thr Val Asp Glu Leu Leu Asp Leu Phe Val Ala Ser Gln
    290                 295                 300
Ser Gly Ser Met Ala Gly Ser Met His Thr Leu Arg Leu Met Glu Tyr
305                 310                 315                 320
Met Lys Asp Met Gly Arg Glu Asp Ile Phe Ile Arg Tyr Val His Glu
                325                 330                 335
Leu Ala Asn Val Gln Ala Ala Ala Gly Asn Phe Thr Glu Ala Gly Leu
            340                 345                 350
Ala Leu Gln Phe His Ala Asp Leu Tyr Asp Trp Asp Pro Lys Arg Val
        355                 360                 365
Val Pro Glu Val Leu Asp Pro Pro Phe Pro Glu Gln Thr Ala Phe Glu
    370                 375                 380
Arg Lys Glu Ser Leu Tyr Phe Ala Ile Ile Gln His Phe Glu Asp Gly
385                 390                 395                 400
Thr Ala Trp Ala His Ala Leu Val Cys Tyr Lys Gly Leu His Pro Gly
                405                 410                 415
```

<210> 37272
<211> 418
<212> PRT
<213> A.fumigatus

<400> 37272

```
Pro Val Pro Ser Gln Trp Ser Ser Phe Gly Lys Asn Glu Ser Ala Lys
1               5                   10                  15
Asp Glu Ala Ile Thr Gly Pro Leu Ala Thr Leu Arg Leu Glu Thr Tyr
            20                  25                  30
Leu Cys Ser Thr Glu Tyr Ser Gln Asp Gln Val Ile Leu Ser Leu Leu
        35                  40                  45
His Trp Lys Asp Arg Pro Val Asp Glu Ile Leu Asp Thr Leu Lys Arg
```

```
    50                  55                  60
Val Leu Phe Val Pro Glu Ile Glu Ile Val Lys Gln Leu Ser Ser Val
65                  70                  75                  80
Phe Asp Ala Leu Phe Gly Ile Leu Val Glu Asn Ala Gly Asn Glu Glu
                85                  90                  95
Tyr Glu Asp Leu Ile Phe Asn Asn Leu Val Thr Val Leu Gly Ile Val
            100                 105                 110
His Asp Arg Arg Phe Asn Leu Gly Pro Leu Val Asp His Tyr Ala Asp
        115                 120                 125
Asn Gln Phe Asn Phe Pro Phe Ala Thr Pro Cys Leu Met Arg Ser Tyr
    130                 135                 140
Leu Arg Leu Leu Gln Ala Ser Ala Asp Val Gln Gln Ser Arg Ser Leu
145                 150                 155                 160
Arg Ala Thr Phe Lys Val Gly Arg His Val Leu Lys Phe Ile Ile Asn
                165                 170                 175
Ala Arg Gln Gln Gln Lys Ala Lys Glu Glu Gly Ile Gly Ile Thr Arg
            180                 185                 190
Gly Gln Ser Thr Phe Asn Arg Asp Leu His Thr Ile Phe Lys Ser Leu
        195                 200                 205
Glu Val Leu Met Arg Asn Pro Ser Pro Ala Met Val Gly Ser Lys Thr
    210                 215                 220
Leu Val Val Gln His Phe His Thr Trp Leu Pro Gly Leu Ser Lys Val
225                 230                 235                 240
Ile Ser Lys Asp Glu Ile Ile Met Ile Ala Leu Ser Phe Met Asp Ser
                245                 250                 255
Cys Ser Asp Val Lys Gly Leu Leu Ile Leu Tyr Lys Leu Val Leu Ile
            260                 265                 270
Gln His Tyr Thr Gln Leu Glu Ile Phe Glu Ser Gly Pro Glu Arg Arg
        275                 280                 285
Thr Leu Ile Ser Ser Cys Ile Gly Trp Leu Glu Pro Tyr Trp Gly Ala
    290                 295                 300
Thr Gly Ser Val Thr Asp Gln Tyr Arg Asp Gln Val Arg Leu Ser Cys
305                 310                 315                 320
Ala Ile Val Ala Gln Leu Leu Lys Gln Pro Asp Pro Leu Leu Tyr Gly
                325                 330                 335
Phe Met Pro Gln Ile Val Ser Ser Tyr Tyr Ser Ile Ile Pro Asp Gly
            340                 345                 350
Val Glu Glu Thr Ser Tyr Leu Ser Leu Ile Phe Ser Lys Val Val Pro
        355                 360                 365
Gly Ser Arg Ser Arg Pro Arg Lys Pro Ala Arg Asn Ser Met Arg His
    370                 375                 380
Trp Ser Asn Cys Arg Arg Leu Trp Leu Pro Arg Gln Arg Ser Pro Ser
385                 390                 395                 400
Arg Arg Ser Arg Arg Ser Arg Ala Pro Ser Leu Arg Arg Leu Phe Arg
                405                 410                 415
Lys Arg
```

<210> 37273
<211> 144
<212> PRT
<213> A.fumigatus

<400> 37273

```
Ala Leu Ile Ser Leu Val Asn Ala Cys Ala Ile Thr Thr Asn Thr Ser
1               5                   10                  15
```

```
Leu Thr Thr Gly Gln Ile Arg Thr Gly Ser Lys Arg Leu Val Ser Cys
            20                  25                  30
His Cys Arg Asp Ile Thr Met Ser Ser Asn Gln Asp Thr Thr Gln Ser
        35                  40                  45
Ser Thr Lys Lys Arg Glu Ser Arg Ala Gly Thr Arg Lys Val Thr Thr
    50                  55                  60
Leu Ser Ala Glu Gln Leu Ala Arg Lys Arg Ala Asn Asp Arg Glu Ala
65                  70                  75                  80
Gln Arg Thr Ile Arg Gln Arg Thr Lys Glu His Ile Glu Arg Leu Gln
                85                  90                  95
Asn Gln Val Ala Glu Leu Gln Ala Lys Asn Gln Gln Phe Asp Asp Val
            100                 105                 110
Met Arg Arg Asn Ala Ala Leu Glu His Glu Ile Lys Ser Leu Arg Gln
        115                 120                 125
Gln Leu Ala Met Leu Thr Gly Asn Gln Ser Tyr Ser Ser Thr Gly Met
    130                 135                 140
```

<210> 37274
<211> 121
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (89)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37274

```
Asn Tyr Phe Phe Arg Tyr Ala Leu Ile Pro Asp Ile Pro Phe Ile Val
1               5                   10                  15
Ile Asn Tyr Val Ser Ala Glu Arg Ile Ile Gln Cys Gly Lys Leu Arg
            20                  25                  30
Asn Ala Glu Gln Met Phe Ala Ser Ile Ser Ala Gln Ser Pro Pro Leu
        35                  40                  45
Lys Tyr Phe Pro Ala Ser Gln Arg Val Thr Tyr Leu Tyr Tyr Leu Gly
    50                  55                  60
Arg Tyr Leu Phe Ser Asn Asn Leu Phe Tyr Pro Ala Gln Ile Ala Leu
65                  70                  75                  80
Gln Ala Ala Tyr Asp Gln Cys His Xaa Gln Ala Val Ser Gln Lys Arg
                85                  90                  95
Met Ile Leu Thr Tyr Leu Ile Pro Cys Asn Ile Ile Met Gly Pro Leu
            100                 105                 110
Pro Phe Pro Ala Ala Leu Ala Lys Ser
        115                 120
```

<210> 37275
<211> 501
<212> PRT
<213> A.fumigatus

<400> 37275

```
Leu Val Trp Val Gln Ala Trp Thr Arg His Tyr Tyr Phe Thr Ser Pro
1               5                   10                  15
His Ala Leu Pro Asp Ser Tyr Lys Ala Pro Gly Pro Asn Asn Met Asp
            20                  25                  30
Asp His Asn Lys Ala Val Ala Thr Ile Ala Gly Gln Val Arg Lys Phe
```

```
        35                  40                  45
His Ser Arg Arg Gln Pro Phe Arg Ile Tyr His Gly Ser Thr Asn Ser
    50                  55                  60
Thr Arg Gln Ser Gln His His His Asn Asn Thr Val Asn Thr Ala His
65                  70                  75                  80
Leu Asn His Met Ile Arg Thr Asp Cys Glu Ala Gln Thr Val Leu Val
                85                  90                  95
Glu Pro Asn Val Pro Met Asp His Leu Val Arg Ala Thr Leu Ala Ala
            100                 105                 110
Gly Leu Val Pro Leu Val Val Met Glu Phe Pro Gly Ile Thr Ala Gly
        115                 120                 125
Gly Gly Phe Ser Gly Thr Ser Gly Glu Ser Ser Ser Phe Arg His Gly
    130                 135                 140
Phe Phe Asp Ala Thr Val Asn Trp Ile Glu Ile Val Leu Pro Asn Gly
145                 150                 155                 160
Glu Val Arg Ile Ala Ser Lys Ser Ser Asp Pro Asp Leu Phe Trp Gly
                165                 170                 175
Ala Ala Ser Ala Phe Gly Thr Leu Gly Val Val Thr Leu Leu Glu Val
            180                 185                 190
Gln Cys Gln Gln Ala Lys Pro Tyr Val Glu Leu Lys Tyr Glu Ser Ala
        195                 200                 205
Ser Cys Met Thr His Ala Met Asp Ile Phe Arg Ala Ala Ala Ala Asp
    210                 215                 220
Pro Gln Ile Asp Tyr Leu Asp Gly Ile Val Phe Ala Arg Asp His Ile
225                 230                 235                 240
Ile Val Cys Thr Gly Arg Leu Ile Asp Ser Leu Pro Ala Asn Val Arg
                245                 250                 255
Pro Gln Arg Phe Thr Gly Ala Arg Asp Pro Trp Phe Tyr Leu His Ala
            260                 265                 270
Gln Lys Arg Ala Asn Thr Ser Ser Arg Lys Pro Asp Tyr Ile Pro Leu
        275                 280                 285
Thr Asp Tyr Leu Phe Arg Tyr Asp Arg Gly Gly Phe Trp Val Ala Arg
    290                 295                 300
Tyr Ala Tyr Ser Tyr Phe Leu Val Pro Phe Asn Arg Ile Thr Arg Tyr
305                 310                 315                 320
Ile Leu Asp Tyr Phe Met His Thr Arg Val Met Tyr His Ala Leu His
                325                 330                 335
Glu Ser Gly His Ser Lys Arg Tyr Ile Ile Gln Asp Val Ala Val Pro
            340                 345                 350
Tyr Ala Ala Thr Thr Glu Phe Leu Asp Trp Leu Asp Gln Lys Gln Asn
        355                 360                 365
Phe Gly Ala Tyr Pro Ile Trp Leu Cys Pro Leu Arg Arg Ser Glu Gly
    370                 375                 380
Leu Met Ser Ser Ala Asp Ser Lys Asn Pro Val Pro Pro Ser Thr Asp
385                 390                 395                 400
Pro Glu Asp Asp Gly Tyr Leu Met Asn Phe Gly Leu Trp Ala Pro Ser
                405                 410                 415
Pro Phe His Ser Asn Pro Asp Gln Phe Ile Ala Gln Asn Arg Arg Leu
            420                 425                 430
Glu Gly Lys Val Arg Glu Leu Gly Gly Lys Lys Trp Leu Tyr Ala His
        435                 440                 445
Ala Tyr Tyr Thr Glu Asp Glu Phe Trp Ser Leu Tyr Asp Lys Arg Lys
    450                 455                 460
Tyr Asp Gln Leu Arg Glu Arg Tyr His Ala Ser Tyr Leu Pro Asp Leu
465                 470                 475                 480
Tyr Gln Lys Val Arg Val Arg Leu Ala Ala Pro Glu Asp Val Ser Tyr
```

```
                485                 490                 495
Asp Arg Arg Arg Arg
            500
```

<210> 37276
<211> 117
<212> PRT
<213> A.fumigatus

<400> 37276

```
Leu Pro Thr Met Ala Gly Gln Gly Thr Pro Val Leu Asp Arg Phe Leu
1               5                  10                  15
Ala Gly Ile Ala Asp Ile Val Lys Glu Arg Asp Gly Ala Arg Leu Gln
            20                  25                  30
Asp Phe Leu Gln Ile Glu Pro Pro Leu Pro Asp Ala Tyr Arg Gln Met
        35                  40                  45
Val Asp Glu Leu Arg Gln Gln Tyr Pro Ser Gly Ser Pro Lys Glu Gly
    50                  55                  60
Asn Leu Leu Arg Arg Cys Glu Glu Val Val Pro Arg Thr Lys Gly Ala
65                  70                  75                  80
Ser Ser Trp Ala Ala Phe Pro Thr Phe Met Lys Leu Tyr Phe Cys Phe
                85                  90                  95
Leu Arg Asp Val Asn Val Asp Asn Leu Leu Glu Thr Tyr Asn Leu Leu
            100                 105                 110
Lys Gly Leu Leu Lys
        115
```

<210> 37277
<211> 209
<212> PRT
<213> A.fumigatus

<400> 37277

```
Leu Tyr Val Leu Val Met Phe Ile Ala Pro Ser Leu Gly Ile Ala Asp
1               5                  10                  15
Gly Thr Asp Thr Leu Ser Leu Leu Leu Leu Ala Cys Ile Ser Ile Ser
            20                  25                  30
Arg Asp Gly Glu Trp Ser Ala Ser Asn Gly Thr Ile Tyr Gly Val Tyr
        35                  40                  45
Val Gly Val Ile Leu Val His Ala Val Cys Ala Val Phe Ala Gly Pro
    50                  55                  60
Ile Met Asn Lys Ile Gln Thr Phe Ser Ile Phe Val Asn Val Ala Met
65                  70                  75                  80
Ile Ile Ala Thr Val Val Ala Leu Pro Val Gly Lys Val Ser Arg Gly
                85                  90                  95
Gln Ser Leu Asn Pro Gly Ser Tyr Val Phe Gly Asp Val Glu Asn Leu
            100                 105                 110
Thr Thr Trp Pro Thr Gly Trp Ala Phe Val Leu Ala Phe Leu Ala Pro
        115                 120                 125
Ile Trp Ser Ile Gly Phe Phe Asp Ser Cys Val His Met Ser Glu Glu
    130                 135                 140
Ala Leu His Ala Ala Lys Ala Val Pro Leu Gly Ile Ile Trp Ser Ser
145                 150                 155                 160
Gly Cys Ala Thr Val Leu Gly Phe Leu Val Leu Ser Val Ile Ala Ala
                165                 170                 175
Thr Met Asp Pro Asp Val Ser Lys Thr Met Gly Ser Thr Phe Gly Gln
```

```
            180                 185                 190
Pro Met Ala Gln Val Ser His Pro Cys Pro Arg Met Val Thr Asp Gly
        195                 200                 205
Asp
```

<210> 37278
<211> 187
<212> PRT
<213> A.fumigatus

<400> 37278

```
Arg Ser Arg Gln Glu Gly Ser Ser Trp Leu His Arg Cys Ala Asp Cys
1               5                   10                  15
His Ser Ile Pro Gly Arg Thr Glu Phe Gly Lys Leu Pro Ala Ile Phe
            20                  25                  30
Ser Gly Glu Lys Lys Ile Tyr Arg Gly Thr Asp Gln Gln Ile Val Ala
        35                  40                  45
Ala Ser Arg Gln Ala Trp Ala Phe Ser Arg Asp Gly Ala Leu Pro Phe
    50                  55                  60
Ser Gly Tyr Phe Arg His Ile Ser Lys Arg Ile Arg Tyr Gln Pro Val
65                  70                  75                  80
Arg Ala Ile Val Gly Phe Val Ala Val Cys Ile Val Ala Gly Leu Leu
                85                  90                  95
Cys Leu Ile Asn Ser Ile Ala Ala Asn Ala Leu Phe Ser Leu Phe Val
            100                 105                 110
Ala Ser Asn Tyr Val Ala Trp Gly Thr Pro Ile Leu Cys Arg Val Val
        115                 120                 125
Trp Ser Lys Lys His Phe Arg Pro Gly Glu Phe Tyr Thr Gly Lys Leu
    130                 135                 140
Ser Arg Pro Ile Ala Ile Val Ala Ile Leu Trp Leu Ile Phe Gly Leu
145                 150                 155                 160
Met Leu Ser Met Phe Pro Ser Gly Gly Pro Asn Pro Thr Arg Lys Cys
                165                 170                 175
Leu Phe Cys Leu Cys Ser Leu Gly Thr Asp Gly
            180                 185
```

<210> 37279
<211> 60
<212> PRT
<213> A.fumigatus

<400> 37279

```
Arg Gly Tyr Ala Thr Ala Ser Thr Met Asn Tyr Thr Ile Val Ile Asn
1               5                   10                  15
Gly Phe Val Trp Val Ala Cys Met Thr Tyr Tyr Phe Leu Phe Ala Arg
            20                  25                  30
Lys Trp Tyr Thr Gly Pro Lys Met Thr Ile Asp Ser Ser Ser Ser Glu
        35                  40                  45
Val Val Ser Pro Pro Glu Lys Asp Ala Ala Ala Asn
    50                  55                  60
```

<210> 37280
<211> 199
<212> PRT
<213> A.fumigatus

<400> 37280
Arg Asn Tyr Ser His Leu His Thr Ser Leu Ser Leu Ser Leu Ser Leu
1 5 10 15
Ser His Ile Ser Phe Thr Gln Tyr Pro Leu Gln Ala Leu Gln Gly Ser
20 25 30
His Asn Thr Gln His Thr Ser His Thr His Asn Pro Arg Ser Lys Glu
35 40 45
Arg Gly Ser Leu Arg Thr Arg Pro Leu Arg Arg Gly Gly Arg Arg Ala
50 55 60
Arg Arg Thr Gly Thr Ser Ala Arg Ala Gly His Gly Gly Gly Glu Arg
65 70 75 80
Pro Ala Cys Arg Gly Arg Gly Ile Arg Gln Gly Ser Arg Gly Arg Thr
85 90 95
Gly Gly Leu Ala His Arg Pro Gly Leu Arg Gly Gly Arg Arg Thr Ile
100 105 110
Arg Ser Gly Gln Gly Gly Gln Leu Leu Val Pro Arg Arg Arg Arg Leu
115 120 125
Ala Gly His Ile Gly Ser Ala Gly Leu Gly Val Arg Gly His Gly Arg
130 135 140
Arg Pro Gly Leu Asp Val Gly Gly Cys Gly Ala Gly Leu Gly Gly Glu
145 150 155 160
Arg Gly Asp Gly Arg Arg Ala Ala Gly Phe Lys Arg Gly Gly Asp Gly
165 170 175
Gly Cys Val Gly Asp Asp Val Gly Gly Asp Val Leu Ala Val Gly Asp
180 185 190
Asp Val Val Gly Cys Gly Asp
195

<210> 37281
<211> 78
<212> PRT
<213> A.fumigatus

<400> 37281
Val Ala Ala Phe Glu Arg Trp Arg Pro Thr Arg Ile Arg Leu Ile Ala
1 5 10 15
Thr Ala Glu Leu Gly Tyr Lys Gln Glu Leu Arg Arg Gln Tyr Ser Thr
20 25 30
Leu Glu Ile Phe Ala Val Ala Phe Ser Ile Met Gly Leu Val Pro Ser
35 40 45
Ile Ala Ser Thr Ile Ala Phe Ser Leu Pro Ala Gly Pro Val Gly Met
50 55 60
Val Trp Val Arg Leu Phe Ser Cys Phe Leu Ser Arg Arg Gly
65 70 75

<210> 37282
<211> 101
<212> PRT
<213> A.fumigatus

<400> 37282
Leu Gln Ala Asp Met Ala Ser Ala Met Pro Thr Ala Gly Gly Leu Tyr
1 5 10 15
Trp Trp Thr His Tyr Phe Ala Gly Glu Lys Phe Lys Asn Pro Leu Ser
20 25 30

```
Phe Leu Val Gly Tyr Ser Asn Thr Leu Gly Leu Ile Gly Gly Met Cys
        35                  40                  45
Ser Val Asp Cys Met Ser Trp Ser Cys Leu Ser Leu His His Ser Ala
    50                  55                  60
Ser Leu Thr Val Gln Ile Arg Ser Arg Cys Cys Cys Ser Arg Ala Ser
65                  70                  75                  80
Arg Ser Arg Val Thr Glu Asn Gly Pro Arg Pro Thr Glu Pro Ser Met
                85                  90                  95
Ala Ser Met Ser Gly
            100
```

<210> 37283
<211> 272
<212> PRT
<213> A.fumigatus

<400> 37283

```
Pro Arg Asp Gly Gln Tyr Gly Val Pro Glu Leu Ala Gly Ile Tyr Leu
1               5                   10                  15
Trp Cys Val Gly Ser Val Thr Thr Tyr Lys Thr Ile Pro Ser Leu Gln
            20                  25                  30
Leu Ser Leu Gln Ser Leu Ile Ser Ser Leu Gln Pro Pro Val Ser Asn
        35                  40                  45
Leu Trp Leu Leu His Cys His Leu Glu Leu Ile Thr Leu Ser His Ile
    50                  55                  60
Asn Lys Thr Lys His Pro Lys Lys Ala Lys Met Gln Leu Val His Leu
65                  70                  75                  80
Thr Ala Leu Leu Leu Ala Thr Ala Thr Ser Thr Tyr Ala Gln Asp Asn
                85                  90                  95
Asn Ala Ile Asp Ser Leu Val Ser Ala Ala Asn Asn Ile Val Ser Asn
            100                 105                 110
Gly Gln Asn Ile Ala Ser Asn Val Val Ala Asp Ala Thr Ser Ile Ala
        115                 120                 125
Ser Ala Phe Glu Thr Gly Gly Ala Ala Ala Val Ser Ser Leu Thr Ser
    130                 135                 140
Glu Ala Gly Ala Ala Ala Ser Asn Val Gln Ser Trp Ala Ser Ser Val
145                 150                 155                 160
Ala Ser Asp Ala Gln Ser Arg Ala Ser Asp Val Ala Ser Lys Ala Ser
                165                 170                 175
Ser Ala Trp Asn Glu Gln Leu Thr Thr Leu Thr Gly Thr Asn Gly Thr
            180                 185                 190
Pro Thr Ala Thr Glu Thr Arg Ser Val Ser Glu Thr Thr Ser Ser Thr
        195                 200                 205
Thr Ala Thr Leu Thr Asp Thr Thr Thr Ser Thr Ser Gly Ser Phe Thr
    210                 215                 220
Thr Thr Met Thr Arg Thr Ser Thr Ser Ala Gly Ala Ala Gly Thr Ser
225                 230                 235                 240
Thr Ser Thr Ser Glu Gly Ala Gly Ala Gln Ala Thr Pro Phe Leu Gly
                245                 250                 255
Ala Gly Ile Val Gly Val Ala Gly Val Leu Gly Val Met Ala Ala Leu
            260                 265                 270
```

<210> 37284
<211> 435
<212> PRT
<213> A.fumigatus

<400> 37284

```
Tyr Gln Leu His Phe His Asp Ile Met Ser Ser Ser Leu Ala Arg Ala
1               5                  10                  15
Arg Pro Ser Arg Arg Ser Ala Pro Arg Arg Ser Tyr Val Ile Glu Glu
            20                  25                  30
Thr Ser Glu Ser Glu Asp Pro Gly Asn Val Thr Pro Thr Ala Ser Asn
        35                  40                  45
His Ser Asp Asn Asp Asp Asp Asp Glu Asp Glu Glu Glu Glu Tyr Thr
    50                  55                  60
Pro Val Pro Ala Lys Arg Ala Lys Ser Val Ser Arg Arg Arg Thr Thr
65                  70                  75                  80
Asn Glu Ala Ile Thr Pro Thr Thr Ala Arg Lys Val Arg Lys Thr Arg
                85                  90                  95
Arg Ser Thr Thr Ala Glu Gln Gly Asp Thr Leu Glu Ile Asn Asn Lys
            100                 105                 110
Asn Asp Glu Gly Asp Ser Val Val Pro Lys Glu Glu Glu Pro Glu Ser
        115                 120                 125
Pro Leu Gln Asn Ala Ala Ala Ala Leu Lys Arg Lys Ser Met Ala His
    130                 135                 140
Pro Arg Lys Ser Arg Val Ser Ser Thr Leu His Pro Glu Lys Ser Ser
145                 150                 155                 160
Leu Pro Thr Pro Gly Pro Ser Val Ser Pro Glu Pro Glu Pro Arg Ser
                165                 170                 175
Gln Arg Gly Ser Val Pro Pro Leu Ala Asp Ile Thr Glu Ser Val Val
            180                 185                 190
Asn Gln Thr Pro Ala Lys Pro Ser Asp Asp Pro Lys Ser Gln Ile Ser
        195                 200                 205
Ile Ile Asn Pro Asn Ser Thr Ile Leu Glu Arg Pro Met Asp Ile Val
    210                 215                 220
Met Lys Ser Arg Asn Leu Ala Pro Ser Val Pro Glu Glu Pro Ser Gly
225                 230                 235                 240
Pro Lys Pro Arg Leu Ile Ile Thr His Leu Val Leu Thr Asn Phe Lys
                245                 250                 255
Ser Tyr Ala Gly Lys Gln Ile Val Gly Pro Phe His Ala Ser Phe Ser
            260                 265                 270
Ser Val Val Gly Pro Asn Gly Ser Gly Lys Ser Asn Val Ile Asp Ser
        275                 280                 285
Leu Leu Phe Val Phe Gly Phe Arg Ala Ser Lys Met Arg Gln Gly Lys
    290                 295                 300
Ile Ser Ala Leu Ile His Asn Ser Ala Asn Phe Pro Asn Leu Pro Phe
305                 310                 315                 320
Cys Glu Val Glu Val His Phe Gln Glu Ile Leu Asp Leu Pro Gly Gly
                325                 330                 335
Glu His Glu Val Val Pro Asp Ser Gln Leu Met Ile Ser Arg Lys Ala
            340                 345                 350
Phe Lys Asn Asn Thr Ser Lys Tyr Tyr Met Asn Gly Lys Glu Thr Asn
        355                 360                 365
Phe Thr Ala Val Thr Thr Leu Leu Arg Glu Arg Ser Ile Asp Leu Asp
    370                 375                 380
His Lys Arg Phe Leu Ile Leu Gln Gly Glu Val Glu Ser Ile Ala Gln
385                 390                 395                 400
Met Lys Pro Lys Ala Ala Asn Glu His Glu Asp Gly Leu Leu Glu Tyr
                405                 410                 415
Leu Glu Asp Ile Ile Gly Thr Ser Lys Tyr Lys Ala Pro Ile Glu Lys
            420                 425                 430
```

Gly Ser Ser
435

<210> 37285
<211> 94
<212> PRT
<213> A.fumigatus

<400> 37285
Asp Thr Val Asn Leu Ser Ser Asn Met Thr Pro Ser Ala Lys Ser Pro
1 5 10 15
Ile Arg Ala Glu Asp Gln Gln Arg Ala Asn Ser Val Thr Val Thr His
20 25 30
Pro Gly Ala Ile Ile Met Gly Thr Trp Glu Asp Phe Asp Ser Ile Phe
35 40 45
Tyr Phe Asn Lys Ser Phe Asn Tyr Asp Asp Lys Val Ile Glu Gln Ile
50 55 60
Leu Ser Asn Arg Arg Ala Leu Gly Asn Gln Leu Phe Ala Asp Arg Leu
65 70 75 80
Leu Gly Leu Leu Gly Val Gln Ala Gly Arg Gln Phe Ala Pro
85 90

<210> 37286
<211> 117
<212> PRT
<213> A.fumigatus

<400> 37286
Gly Met Gly Phe Ile Leu Ala Phe Phe Leu Leu Gly Glu Asp Phe Gly
1 5 10 15
Ser Val Lys Cys Ile Val Ile Gly Arg Lys Cys Cys Leu Pro Leu Gln
20 25 30
Gln Lys Ile Ile Ser Ile Glu Gln Asn Phe His Phe His Leu Glu Tyr
35 40 45
Ser Ser Ser Val Lys Ile His Asp Thr Tyr Ser Ile Asp Arg Asp Glu
50 55 60
Phe Asp Arg Val Ile Cys Arg Pro Asp Ile Gln Tyr Thr Ser Ile Lys
65 70 75 80
Gly Thr Val Ile Tyr Trp Leu Ala Leu Pro Arg Ser Val Gly Ala Ala
85 90 95
Glu Lys Arg Asn Met Val Val Cys Thr Phe Phe Gln Gln Gly Arg Cys
100 105 110
Arg Phe Gly Gly Ile
115

<210> 37287
<211> 65
<212> PRT
<213> A.fumigatus

<400> 37287
Ser Ala Ser Ala Arg Gly Met Val Trp Pro Arg Gly Glu Arg Thr Ile
1 5 10 15
Ala Pro Leu Leu His Ala Val Met Arg Glu Leu Leu Val Phe Phe Tyr
20 25 30
Lys Ile Met Arg Ser Ser Ile Val Phe Ser Leu Phe Val Phe Phe Cys

```
        35                  40                  45
Pro Ser Leu Ser Asp Leu Tyr Ile Glu Asn His Phe Gln Ala Ile Ala
    50                  55                  60
Leu
65

<210> 37288
<211> 147
<212> PRT
<213> A.fumigatus

<400> 37288
Val Tyr Phe His Thr Ser Glu Ser Leu Ser Val Leu Glu Leu Pro Arg
1               5                   10                  15
Leu Asn Leu Pro Gln Lys Ala Ser Pro Gly Lys Leu Lys Val Pro Pro
            20                  25                  30
Asp Ile Cys Gly Thr Ser Val Gly Phe Leu Ala Ala His Glu Ile Ala
        35                  40                  45
Cys Ala Gln Gly Lys Gln Val Asn Ala Ser Thr Pro Cys Leu Leu Arg
    50                  55                  60
Phe Val Cys Ser Cys Ser Gly Glu His Gln Ser Leu Arg Pro Ser Ile
65                  70                  75                  80
Tyr Leu Asp Ser Val Lys Leu Phe Phe Glu Ile Ile Ser Glu Arg Gln
                85                  90                  95
Tyr Ile Ser Val Ala Gly Val Val Val Glu Ala Ala Trp Ala Cys Cys
            100                 105                 110
Gly Asn Phe Lys Tyr Asp Leu Asp Lys Asp Lys Ala Val Ser Arg Tyr
        115                 120                 125
Val His Thr Asn Arg Thr Gln Ala Ala Ile Gln Ser Ser Glu Cys Ser
    130                 135                 140
Ser Val Cys
145

<210> 37289
<211> 111
<212> PRT
<213> A.fumigatus

<400> 37289
Ile Trp Pro Gln His Ser His Tyr Arg Ser Val Trp Asn Thr Leu Leu
1               5                   10                  15
Leu Leu Pro Val Pro Lys Arg Thr Ser Gly Gly Ser Ala Gln Trp Lys
            20                  25                  30
Tyr Trp Tyr Gly Thr Ile Leu Phe Thr Leu Leu Gln Asn Pro Ser Val
        35                  40                  45
Phe Pro Gln Ile Pro Ile Glu Cys Gly Leu Gly Tyr Gly Ile Arg Thr
    50                  55                  60
Arg Gly Ala Ser Leu Phe Ser Pro Glu Pro Pro Leu Asn Ser Ser Ser
65                  70                  75                  80
Ser Lys Asn Cys Ala Ile Phe Pro Val Asn Pro Phe Phe Leu Pro Gly
                85                  90                  95
Ile Ile Pro Val Ser Val Gly Val Ser Asn Gly Ser Lys Pro Gly
            100                 105                 110

<210> 37290
<211> 122
```

<212> PRT
<213> A.fumigatus

<400> 37290
Gly Ser Val Ala Asn Ser Val Pro His Pro Pro Thr Ile Val His Asn
1 5 10 15
Leu Thr Ser Ala Val Val Phe Lys Lys Glu Arg Ala Ser Ile Leu Ile
20 25 30
Met Leu Leu Pro Arg Lys Ser Arg Val Gly Ser Ser Gly Tyr Ser Tyr
35 40 45
Ser Ser Tyr Asn Asn Ser Pro Trp Asn Glu Asp Val Thr Phe Ser Met
50 55 60
Tyr Ser Val Tyr Gly Gly Arg Ser Asn Phe Ile Thr Gln Leu Ala Phe
65 70 75 80
Glu Phe Leu Thr Leu Gly Val Leu Phe Leu Phe Leu Phe Gly Cys Phe
85 90 95
Phe Ile Arg Gln Pro Lys Ala Leu Pro Lys Cys Leu Pro Lys Lys Ala
100 105 110
Leu Val Phe Gly Ile Leu Ser Tyr Ile Leu
115 120

<210> 37291
<211> 102
<212> PRT
<213> A.fumigatus

<400> 37291
Asn Pro Ile Tyr Thr Ile Asp Ile Gln Leu Pro Thr Thr Thr Ser Met
1 5 10 15
Val Leu Leu Val Thr Thr Thr His Ile Ile Ser Ala Phe Glu Ala Val
20 25 30
Pro Pro Ser Ser Arg Lys Glu Leu Asp Leu Pro Asp Ser Leu Ser Ile
35 40 45
Gly Ser Pro Ile Ser His Glu Gln Val Ile Arg Leu Ser Arg Tyr Ser
50 55 60
Asn Asn Gly Ala Asn Ser Thr Ser Pro His Pro Lys Pro Asp Arg Ser
65 70 75 80
Leu Asn Ser Leu Leu Arg Gly Thr Arg Val Tyr Val Pro Pro Pro Ser
85 90 95
Lys Lys Pro Glu Pro Val
100

<210> 37292
<211> 232
<212> PRT
<213> A.fumigatus

<400> 37292
Tyr Asp His Gln Ser Pro Glu Tyr Leu Ala Leu Lys Ala Arg Leu Leu
1 5 10 15
Ala Ala Ala Glu Thr Asp Ala Tyr Asn Arg Met Thr Ala Ser Thr Phe
20 25 30
Thr Ser Ser Ala Pro Gly Gln Ser Gly Pro Ser Pro Ile Phe Ser Ser
35 40 45
Ser Thr Pro Thr Leu Ser Ala Leu His Asp Ser Lys Ala Leu Ala Gly
50 55 60

```
Asp Thr Gly Thr Lys Asp Pro Leu Thr Pro Ser Leu Val Leu Asn Ile
65                  70                  75                  80
Phe Leu Ser Val Leu Ile Thr Gly Phe Ser Val Tyr Trp Ala Leu Thr
                85                  90                  95
Ser Phe Arg Thr Pro Asp Ile Leu Val Ser Ser Val Ser Ser Leu Trp
            100                 105                 110
Arg Gly Gln Pro Pro Ser Lys Pro Ser Ala Asn Arg Val Ser Gly Gly
        115                 120                 125
Val Thr Glu Pro Val Arg Val Leu Val Ser Leu Leu Ala Ala Leu Met
    130                 135                 140
Val Gly Val Ala Glu Val Leu Ile Tyr Ala Ile Tyr Leu Gln Lys Val
145                 150                 155                 160
Asp Gln Ala Arg Ala Arg Glu Arg Arg Ile Lys Glu Arg Lys Glu Val
                165                 170                 175
Val Glu Thr Asp Val Val Arg Ala Gly Pro Gly Gln Ala Gly Lys Glu
            180                 185                 190
Gly Val Gln Arg Ile Asp Gly Glu Gln Glu Thr Ile Trp Gly Arg Gly
        195                 200                 205
Ala Asn Gly Gly Val Arg Arg Arg Val Arg Glu Lys Trp Glu Glu Lys
    210                 215                 220
Glu Ser Gln Trp Asn His Asp Gly
225                 230
```

<210> 37293
<211> 67
<212> PRT
<213> A.fumigatus

<400> 37293

```
Gln Thr Asn Ser Ser Ser Thr Leu Glu Thr Ser Phe Glu Leu Asn Asp
1               5                   10                  15
Thr Leu Tyr Ala Arg Ala Gln Ile Ser Pro Ala Asp Thr Asp Glu Val
            20                  25                  30
Tyr Leu Trp Leu Gly Ala Asn Val Met Leu Ala Tyr Pro Ile Pro Glu
        35                  40                  45
Ala Glu Arg Thr Leu Ser Glu Lys Phe Leu Pro Arg His Gly Gln Glu
    50                  55                  60
Ile Arg Val
65
```

<210> 37294
<211> 342
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (21)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37294

```
Gln Val Glu Glu Phe Pro Ala Val Ser Ser Glu Asp Ile Lys Leu Ala
1               5                   10                  15
Met Lys Glu Leu Xaa Asp Glu Pro Thr Thr Phe Met Phe His Ala Glu
            20                  25                  30
Met Leu Pro His Ile Ala Ala Ser Val Gly Asp Ala Val Ser Thr Phe
```

```
        35                  40                  45
Asp Pro Arg Ala Ala Pro Ala Gly Pro Val Glu Ala Tyr Ser Thr Phe
    50                  55                  60
Leu Ala Ser Arg Pro Ser Val Phe Glu Thr Cys Ala Val Gln Glu Ile
65                  70                  75                  80
Leu Ser Leu Ala His Leu Ala Pro Asn Leu Pro Leu His Ile Val His
                85                  90                  95
Leu Ser Ala Met Glu Val Ile Pro Leu Leu His Lys Ala Arg Thr Asp
            100                 105                 110
Gly Val Lys Ile Thr Ala Glu Thr Cys Phe His Tyr Leu Ser Leu Ala
        115                 120                 125
Ala Glu Glu Ile Arg Asp Gly Asp Thr Arg His Lys Cys Cys Pro Pro
    130                 135                 140
Ile Arg Ser Lys Leu Asn Gln Asp Gly Leu Trp Ala Glu Leu Glu Arg
145                 150                 155                 160
His Ala Glu Asp Gly Val Ile Lys Thr Val Val Ser Asp His Ser Pro
                165                 170                 175
Cys Thr Pro Asp Leu Lys Leu Leu Pro Ser His Ile Pro Gly His His
            180                 185                 190
Ala Ala Asn Gly Glu Val Glu Asn Ser Gly Ser Phe Phe Ser Ala Trp
        195                 200                 205
Gly Gly Ile Ser Ser Val Gly Leu Gly Leu Pro Ile Met Trp Thr Glu
    210                 215                 220
Leu Ser His Arg Lys Asn Leu Thr Ser Ala Pro Asp Asp Ala Asn Thr
225                 230                 235                 240
Lys Arg Ala Leu Gln Asp Ile Val Arg Trp Cys Cys Ala Asn Thr Ala
                245                 250                 255
Ala Gln Val Gly Leu Gln Asn Gln Lys Gly Asp Leu Val Pro Gly Phe
            260                 265                 270
Asp Ala Asp Ile Cys Val Phe Asp Asp Thr Ala Glu Trp Val Val Lys
        275                 280                 285
Pro Ser Thr Met Leu Phe Arg Asn Lys Cys Ser Pro Tyr Gln Gly Arg
    290                 295                 300
Thr Leu Arg Gly Met Val Arg Glu Thr Trp Val Arg Gly Glu Lys Val
305                 310                 315                 320
Phe Ser Arg Asp Asp Gly Phe Val Ala Lys Ile Pro Thr Gly Arg Leu
                325                 330                 335
Leu Leu Glu Lys Arg Val
            340
```

<210> 37295
<211> 98
<212> PRT
<213> A.fumigatus

<400> 37295

```
Gln Pro Leu Ser Ser Ser Thr Val Thr Thr Gln Thr Asn Pro Arg Gly
1               5                   10                  15
Ile Pro Ala Ala Pro Phe Ile Asp Asn Val Ser Asp Tyr Val Ala Ser
            20                  25                  30
Arg Ala Asp Val Glu Pro Thr Leu Gln Arg Phe Gln Glu Met Ile Ser
        35                  40                  45
Lys Tyr Gln Phe Met Glu Leu Asn Thr Gln Arg Arg Ala Ala Gly Leu
    50                  55                  60
Arg Glu Lys Ile Pro Asp Ile Lys Lys Thr Leu Asp Val Val Arg Phe
65                  70                  75                  80
```

Leu Lys Met Gln Lys Glu Val Gly His Arg Val Gln Ser Pro Val Ile
85 90 95
Val Cys

<210> 37296
<211> 388
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (40)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37296
Ala Ala Asn Pro Thr Glu Leu Pro Ile Gly Asp Ser Pro Asp Leu Val
1 5 10 15
Leu Val Pro Ala Thr Pro Glu Glu Arg Ile Lys Ser Ile Arg Leu Asn
20 25 30
Ser Thr Ala Trp Lys Gly Cys Xaa Asp Val Glu Thr Tyr Ile Ala Arg
35 40 45
Glu Asn His Leu Tyr Gln Gln Arg Leu Val Lys Asp Gly Leu Thr Cys
50 55 60
Trp Leu Leu Val Asp Arg Arg Glu Pro Glu Gly Gln Arg Thr Ile Leu
65 70 75 80
Ser Ser Cys Glu Thr Tyr Lys Lys Lys Ala Leu Leu Ala His His Gly
85 90 95
Lys Val Glu Asp Ile Ala Thr His Gly Val Gly Ser Val Tyr Cys Arg
100 105 110
Pro Glu His Arg Gly Lys Gly Tyr Ala Lys Arg Met Met Gln Glu Leu
115 120 125
Cys Thr Lys Leu Glu Thr Trp Gln Met Glu Asn Glu Pro Arg Ser Arg
130 135 140
Ser Leu Phe Ser Val Leu Phe Ser Asp Ile Gly Lys Asn Phe Tyr Ala
145 150 155 160
Gln Phe Gly Trp Lys Pro Phe Pro Ser Ser His Ile Ser Leu Pro Pro
165 170 175
Ile Ser Arg Glu Glu Tyr Asp Leu Ser Ser Arg Ala Asn Leu Pro Lys
180 185 190
Ala Arg Thr Leu Val Ala Asp Asp Val Arg Lys Cys Met Cys Ser Asp
195 200 205
Arg Val Leu Gln Lys Glu Arg Glu Ser Leu Arg Ala Ala Ser Glu Lys
210 215 220
Thr Pro Ile Ala His Val Ala Ile Leu Pro Asp Phe Asp His Phe Val
225 230 235 240
Trp His Trp Ala Arg Glu Glu Phe Tyr Ala Glu Lys Leu His Asp Asp
245 250 255
Gln Ala Pro Pro Leu Ile Lys Gly Ala Gly Glu Asp Lys Ala Lys Val
260 265 270
Tyr Cys Ala Trp Asn Arg Asn Phe Gly Glu Thr Pro Gln Asp Asn Thr
275 280 285
Leu Phe Ile Leu Arg Trp Val Tyr Asp Glu Pro Thr Thr Pro Glu Glu
290 295 300
Thr Glu Ala Thr Ala Lys Ala Met Ala Ala Ile Leu Arg Arg Ala Gln
305 310 315 320

```
Leu Glu Ala His Glu Trp Asp Met Ala Lys Val Asp Val Trp Asn Pro
                325                 330                 335
Thr Pro Leu Leu Gln Lys Ala Val Ala Met Leu Asp Ser Pro Ala Glu
            340                 345                 350
Leu Val His Arg Glu Lys Ser Ser Ile Ala Ser Leu Arg Trp Thr Gly
        355                 360                 365
Ala Ala Gln Gly Leu Gly Glu Glu Val Glu Trp Leu Trp Asn Glu Lys
    370                 375                 380
Tyr Ala Trp Cys
385
```

<210> 37297
<211> 73
<212> PRT
<213> A.fumigatus

<400> 37297

```
Ser Ala Ser Cys Phe Cys Phe Glu Ala Tyr His Arg Val Thr Asp Phe
1               5                   10                  15
Leu Gln Glu Asn Ser Tyr Gly His Pro Asp Gln Thr Thr Ile Tyr Phe
            20                  25                  30
Val Asn Asn Ile Asp Arg His Lys Ile Lys Lys Asn Ile Ser Thr Asp
        35                  40                  45
Ala Asn Thr Ala Ala Val Ala Lys Lys Ser Arg Asn Trp His Glu Leu
    50                  55                  60
Phe Arg Asn Gln Lys Arg Gln Lys Asn
65                  70
```

<210> 37298
<211> 533
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (515)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37298

```
Pro Ile Trp Tyr Trp Ser Ala Glu Ile Asp Arg Gly Ala Lys Cys Ile
1               5                   10                  15
Val Gln Met Lys Gly Asn Gln Thr Ile Leu Val Pro Pro Pro Gly Ala
            20                  25                  30
Asp Glu Lys Ser Arg Lys Ala Gly Gly Lys Gly Ala Val Glu Gly Pro
        35                  40                  45
Lys Thr Phe Ala Phe Asp Arg Ser Tyr Trp Ser Phe Asp Lys Asn Ala
    50                  55                  60
Pro Asn Tyr Ala Gly Gln Asp Asn Leu Phe Ala Asp Leu Gly Val Pro
65                  70                  75                  80
Leu Leu Asp Asn Ala Phe Gln Gly Tyr Asn Asn Cys Ile Phe Ala Tyr
                85                  90                  95
Gly Gln Thr Gly Ser Gly Lys Ser Tyr Ser Met Met Gly Tyr Gly Lys
            100                 105                 110
Glu Tyr Gly Val Ile Pro Arg Ile Cys Gln Glu Met Phe Gln Arg Ile
        115                 120                 125
Ala Lys Met Gln Glu Asp Lys Asn Leu Asn Cys Thr Val Glu Val Ser
```

```
    130                 135                 140
Tyr Leu Glu Ile Tyr Asn Glu Arg Val Arg Asp Leu Leu Asn Pro Ser
145                 150                 155                 160
Asn Lys Gly Asn Leu Lys Val Arg Glu His Pro Ser Thr Gly Pro Tyr
                165                 170                 175
Val Glu Asp Leu Ala Lys Leu Ala Val Arg Ser Phe Glu Glu Ile Asp
            180                 185                 190
His Leu Met Asp Glu Gly Asn Lys Ala Arg Thr Val Ala Ala Thr Asn
        195                 200                 205
Met Asn Glu Thr Ser Ser Arg Ser His Ala Val Phe Thr Leu Thr Leu
    210                 215                 220
Thr Gln Lys Arg His Asp Ala Glu Thr Ser Met Asp Thr Glu Lys Val
225                 230                 235                 240
Ser Arg Ile Ser Leu Val Asp Leu Ala Gly Ser Glu Arg Ala Asn Ser
                245                 250                 255
Thr Gly Ala Thr Gly Ala Arg Leu Lys Glu Gly Ala Glu Ile Asn Arg
            260                 265                 270
Ser Leu Ser Thr Leu Gly Arg Val Ile Ala Ala Leu Ala Asp Val Ala
        275                 280                 285
Ser Gly Lys Lys Lys Asn Ala Ser Met Val Pro Tyr Arg Asp Ser Ile
    290                 295                 300
Leu Thr Trp Leu Leu Lys Asp Ser Leu Gly Gly Asn Ser Met Thr Ala
305                 310                 315                 320
Met Ile Ala Ala Ile Ser Pro Ala Asp Ile Asn Phe Asp Glu Thr Leu
                325                 330                 335
Ser Thr Leu Arg Tyr Ala Asp Ser Ala Lys Arg Ile Lys Asn His Ala
            340                 345                 350
Val Val Asn Glu Asp Pro Asn Ala Arg Met Ile Arg Glu Leu Lys Glu
        355                 360                 365
Glu Leu Ala Gln Leu Arg Ala Lys Leu Gly Gly Gly Ser Thr Ala Gly
    370                 375                 380
Ala Ala Gly Gly Met Pro Ala Glu Glu Tyr Tyr Pro Pro Asp Thr Pro
385                 390                 395                 400
Leu Glu Lys Gln Met Val Ser Ile Gln Lys Ala Asp Gly Thr Ile Thr
                405                 410                 415
Lys Val Ser Lys Ala Glu Ile Val Glu Gln Leu Asn Gln Ser Glu Lys
            420                 425                 430
Leu Tyr Lys Asp Leu Asn His Thr Trp Arg Gly Glu Ile Arg Glu Lys
        435                 440                 445
Arg Ser Gly Ser Thr Gly Lys Arg Asp Ala Ala Leu Glu Arg Thr Arg
    450                 455                 460
Tyr Gln Tyr Arg Lys Arg Leu Arg Trp Leu Glu His Ser Glu Glu Asn
465                 470                 475                 480
Ala His Leu Val Asn Leu Ser Asp Glu Pro Val Leu Ala Glu Cys Leu
                485                 490                 495
Val Leu His Ile Lys Pro Gly Thr Thr Thr Val Gly Asn Ile Glu Gln
            500                 505                 510
Gly Asn Xaa Val Gly Asp His Val Glu Trp Ala Pro Asp Ile Phe Gln
        515                 520                 525
Asn Asn Cys Pro Phe
    530
```

<210> 37299
<211> 98
<212> PRT
<213> A.fumigatus

<400> 37299
Arg Asn Phe Cys Gly Ala Asn Gly Arg Leu Thr Ile Gln Thr Gly Phe
1 5 10 15
Ser Asn Pro Thr Leu Phe Ile Gln Val Gly Ser Lys Phe Gly Ile Gly
20 25 30
Pro Asn Arg Ile Glu Glu Val Ser Ser Lys Asn Ile Thr Pro Ser Met
35 40 45
Ala Arg Leu Ser Gly Leu Gln Arg Glu Val Leu Ser Leu Tyr Arg Lys
50 55 60
Cys Leu Arg Glu Ile Arg Lys Lys Pro Ser Val Ser Phe Leu Phe Ser
65 70 75 80
Leu His Asp Glu Leu Val Ser Lys Ala Phe Phe Trp Leu Ile Glu Ser
85 90 95
Ile Leu

<210> 37300
<211> 196
<212> PRT
<213> A.fumigatus

<400> 37300
Thr Thr Asn Met Ala Phe Pro Arg Phe Ser Thr Asp Leu Ala Pro Leu
1 5 10 15
Phe Gln Leu Leu Asp Asp Tyr Asp Thr His Arg Thr Tyr Arg Pro Lys
20 25 30
Asn Lys Val Thr Pro Val Arg Thr Phe Ala Pro Lys Phe Asp Val Cys
35 40 45
Glu Phe Pro Asp Gly Tyr Arg Leu Asp Gly Glu Leu Pro Gly Val Asn
50 55 60
Gln Ser Asp Ile Glu Ile Glu Phe Ser Asp Pro Gln Thr Ile Val Ile
65 70 75 80
Lys Gly His Val Glu Arg Asn Tyr Asn Asn Thr Ala Thr Glu Thr Gly
85 90 95
Asp Asp Ser Ser Ser Thr Lys Ser Arg Gln Pro Thr Val Glu Asp Glu
100 105 110
Thr Glu Glu Gly Asn Ala Ser Ser Ala Ile Ala Ser Pro Ala Lys Pro
115 120 125
Ala Glu Gln Thr Val Thr Asn Ser Pro Thr Gln Thr Asn Tyr Lys Leu
130 135 140
Trp Val Ser Glu Arg Ser Ile Gly Glu Phe Gln Arg Thr Phe Ala Phe
145 150 155 160
Pro Thr Arg Val Asp Gln Asp Ala Val Lys Ala Ser Leu Arg Asn Gly
165 170 175
Ile Leu Ser Ile Phe Val Pro Lys Glu Ala Ala Pro Lys Leu Lys Lys
180 185 190
Ile Arg Val Glu
195

<210> 37301
<211> 77
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (52)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37301
Asn Leu Val Thr Leu Val Gly His Ala Asp Ser Asn Phe Phe Val His
1 5 10 15
Lys Val Thr Tyr Phe Arg Gln Ile Val Gln Ile Tyr Ala Val Met Ala
20 25 30
Phe Phe Pro Ser Leu Leu Ser Phe Phe Phe Val Phe Phe Phe Phe Phe
35 40 45
Ser Phe Phe Xaa Trp Glu Thr Pro Gly Lys Ile Ala Glu Gly Val Leu
50 55 60
Glu Ala Met Tyr Phe Met Gly Ile Arg Asn His Thr His
65 70 75

<210> 37302
<211> 242
<212> PRT
<213> A.fumigatus

<400> 37302
Lys Ala His Asn Arg Thr Phe Gly Arg Ile Phe Ser Ala Val Ile Leu
1 5 10 15
Phe Ser Lys Lys Gly Pro Ser Ser Asn Glu Pro Arg Val Thr Pro Asn
20 25 30
Ala Tyr Leu Ser Thr Met Pro Pro Lys Thr Gly Arg Gly Arg Lys Ala
35 40 45
Ile Gly Ala Pro Arg Thr Gln Pro Arg Asp Asp Gly Gly Ala Gly Pro
50 55 60
Ser Asn Ala Ala Ala Thr Ala Ser Pro Ser Thr Arg Gly Gln Pro Pro
65 70 75 80
Lys Phe Arg Gly Gly Thr Arg Gly Glu Lys Arg Pro Ala His Ala Pro
85 90 95
Arg Pro Ser Asp Val Gln Arg Met Tyr Ile Asn Asp Ser Leu Arg Arg
100 105 110
His Ile Lys Thr Tyr Ala Ile Ala Leu Ser Leu Ile Pro Tyr Gln Leu
115 120 125
Gly Thr Pro Thr Pro Gln Gly Arg Arg His Arg Tyr Lys Pro Gly Thr
130 135 140
Val Ala Leu Lys Glu Ile Arg Arg Tyr Gln Arg Ser Tyr Asp Leu Leu
145 150 155 160
Ile Gln Lys Leu Pro Phe Ala Arg Leu Val Arg Glu Val Ala Leu Glu
165 170 175
Leu Leu Pro Ala Glu Val Gly Ala Glu Leu Arg Trp Gln Ser His Ala
180 185 190
Ile Gln Ala Leu Gln Glu Ala Ala Glu Ala Phe Leu Val His Leu Phe
195 200 205
Glu Asp Thr Asn Leu Cys Ala Leu His Ala Lys Arg Val Thr Ile Met
210 215 220
Gln Lys Asp Ile Gln Leu Ala Arg Arg Ile Arg Gly Ile Trp Gly Gly
225 230 235 240
Leu Gly

<210> 37303

<211> 188
<212> PRT
<213> A.fumigatus

<400> 37303
Trp Gln Tyr Trp Arg Leu Leu Thr Thr Phe Leu Tyr Phe Gly Pro Leu
1 5 10 15
Asn Leu Asp Leu Leu Phe His Val Phe Phe Leu Gln Arg Tyr Ser Arg
20 25 30
Leu Leu Glu Glu Ser Ser Gly Arg Ser Pro Ala His Phe Ser Trp Leu
35 40 45
Leu Phe Tyr Ala Met Thr Ser Leu Leu Leu Ile Ser Pro Phe Leu Ser
50 55 60
Leu Pro Phe Leu Gly Thr Ala Leu Ser Ser Ser Leu Val Tyr Ile Trp
65 70 75 80
Ser Arg Arg Asn Pro Asp Thr Gly Leu Ser Phe Leu Gly Ile Leu Val
85 90 95
Phe Thr Ala Pro Tyr Leu Pro Trp Val Leu Met Ala Phe Ser Leu Val
100 105 110
Val His Gly Ile Val Pro Lys Asp Glu Ile Cys Gly Ile Val Val Gly
115 120 125
His Ile Trp Tyr Phe Phe Asn Asp Val Tyr Pro Ser Phe His Gly Gly
130 135 140
His Arg Pro Leu Asp Pro Pro Arg Trp Trp Arg Arg Ile Phe Asp Pro
145 150 155 160
Arg Ala Ala Ala Gly Glu Ala Gln Arg Thr Asp Thr Asp Asn Val Asn
165 170 175
Arg Asp Phe Ala Ala Ala Ala Ala Pro Glu Val Arg
180 185

<210> 37304
<211> 169
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (11),(12),(14)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37304
Lys Gly Thr Pro Gly Glu Leu Pro Arg Gly Xaa Xaa Leu Xaa Gly Thr
1 5 10 15
Phe Tyr Cys Ala Pro Pro Ser Arg Gly His Gly His Ser His Ser Thr
20 25 30
Ser Ser Ile Glu Val Pro Pro Gln Thr Thr Pro Ser Asp Leu Asp Leu
35 40 45
Leu His Lys Trp Met Asn Asp Pro Arg Val Ser Ala Ala Trp Gly Glu
50 55 60
Gly Gly Pro Lys Glu Lys Gln Glu Lys Phe Leu Arg Asn Asn Leu Thr
65 70 75 80
Ser Arg His Ser Phe Pro Val Ile Gly Cys Trp Asp Gly Lys Pro Phe
85 90 95
Gly Tyr Phe Glu Ile Tyr Trp Val Lys Glu Asp Arg Leu Gly Ala Leu
100 105 110
Ile Gly Gly Ala Asp Asn Tyr Asp Arg Gly Ile His Leu Leu Val Gly

```
        115                 120                 125
Glu Gln Glu Tyr Arg Gly Ser His Arg Val Ala Ile Trp Leu Ser Ala
    130                 135                 140
Leu Val His Tyr Cys Trp Leu Ala Asp Pro Arg Thr Gln Thr Val Met
145                 150                 155                 160
Leu Glu Pro Arg Val Asp Asn Glu Lys
                165
```

<210> 37305
<211> 65
<212> PRT
<213> A.fumigatus

<400> 37305

```
Phe Tyr Leu Tyr Ser Ser Phe Ser Thr Thr Ile Pro Ile Tyr Cys Tyr
1               5                   10                  15
Tyr Tyr Tyr Tyr Tyr Tyr Tyr Ile Ser Leu Ser Gln Leu Phe Ser Val
            20                  25                  30
Asn Tyr Ile Tyr Lys Pro Leu Phe His Ser Pro His His Val Ser Ser
        35                  40                  45
Ser Asn Tyr Ser Ser Leu His Pro Gln Arg Gly Phe Arg Ser Pro Gly
    50                  55                  60
Gln
65
```

<210> 37306
<211> 161
<212> PRT
<213> A.fumigatus

<400> 37306

```
Leu Ala Arg Ile Gly Ile Phe Pro Glu Ser Ser Pro Cys Cys Asn Ser
1               5                   10                  15
Ile Cys Thr Ala Leu Phe Leu Leu Gln Phe Pro Tyr Thr Ala Thr Thr
            20                  25                  30
Thr Thr Thr Thr Thr Thr Ser Arg Phe Leu Ser Cys Ser Ala Leu Thr
        35                  40                  45
Thr Ser Thr Ser Pro Ser Phe Thr His Pro Thr Met Ser Pro Pro Ala
    50                  55                  60
Ile Ile Ala Pro Ser Ile Leu Ser Ala Asp Phe Ala Val Leu Gly Asn
65                  70                  75                  80
Glu Cys Ser Thr Lys Ile Ala Gln Gly Ala Asp Trp Leu His Val Asp
                85                  90                  95
Ile Met Asp Gly His Phe Val Pro Asn Met Thr Phe Gly Ala Pro Val
            100                 105                 110
Val Thr Lys Ile Arg Ser His Val Asp Arg Pro Thr Gln Ala Leu Gly
        115                 120                 125
Lys Gly Thr Phe Asp Cys His Met Met Ile Met Glu Val Gly Ala His
    130                 135                 140
Pro Ser Gln Pro Ile Tyr Thr Ile Gln Ser Ser Leu Leu Arg Glu Thr
145                 150                 155                 160
Arg
```

<210> 37307
<211> 87

<212> PRT
<213> A.fumigatus

<400> 37307
Met Val Leu Val Met Thr Val His Pro Gly Phe Gly Gly Gln Lys Phe
1 5 10 15
Met Ala Ser Glu Leu Pro Lys Val Lys Ala Leu Arg Glu Arg Tyr Pro
20 25 30
Asp Leu Asn Ile Glu Val Asp Gly Gly Leu Gly Leu Gly Thr Ile Asp
35 40 45
Gln Ala Ala Asp Ala Gly Ala Asn Val Ile Val Ala Gly Ser Ala Val
50 55 60
Phe Gly Ala Gln Asp Pro Ala Asp Val Ile Ala Lys Leu Arg Glu Ala
65 70 75 80
Val Asn Lys Arg Arg Gln Thr
85

<210> 37308
<211> 71
<212> PRT
<213> A.fumigatus

<400> 37308
Thr Phe Val Asp Val Val Val Ala Cys Leu Asn Pro Gly Ser Gly Ile
1 5 10 15
Pro Ala Gly Tyr Pro His Gly Trp Ile Tyr Pro Thr Ser His Val Lys
20 25 30
Ala Thr Thr Leu Ala Leu Ile Ser Asp Gln Ile Ala Ile Val Gly Leu
35 40 45
Thr Ser Thr Ala Ser Gly Ser Ser Gly Asp Val Asp Ala Ala Tyr Val
50 55 60
Ile Phe Pro Phe Leu Phe Ser
65 70

<210> 37309
<211> 120
<212> PRT
<213> A.fumigatus

<400> 37309
Glu Lys His Ala Asn Thr Pro Pro Gln Pro His Lys Trp Val Lys Glu
1 5 10 15
Phe Lys Ser Ala Gly Cys Asp Leu Tyr Cys Phe His Tyr Glu Ala Ala
20 25 30
Ile Ser Ser Val Ala Ala Met Thr Pro Glu Asp Lys Glu Thr Ser Arg
35 40 45
Leu Thr Ser Pro Lys Glu Leu Ile Arg Tyr Ile His Asp Glu Gly Met
50 55 60
Gln Ala Gly Ile Ala Ile Lys Pro Asp Thr Pro Val Asp Val Leu Trp
65 70 75 80
Asp Ile Leu Glu Asn Lys Asp Glu Lys Glu Arg Pro Asp Val Ser Leu
85 90 95
His Tyr Ser Asp Thr His Arg Leu Leu Gly Phe Ile Leu Thr Asp His
100 105 110
Cys Cys Cys Arg Trp Phe Leu Ser
115 120

<210> 37310
<211> 149
<212> PRT
<213> A.fumigatus

<400> 37310
Arg Ile Leu Gly Glu Lys Gly Gly Ala Thr Ile Arg Phe Gly Ile Thr
1 5 10 15
Arg Tyr Gln Ile Ser Asn Phe Ser Phe Val Ser Ser Ser Val Ser Pro
20 25 30
Leu Phe Pro Thr His Cys Asn Leu Ser Met Ser Asp Ser Thr Leu Tyr
35 40 45
Leu Tyr Thr Ser Leu Thr Ala Gly Ser Ser His Ile Val Thr Ala Thr
50 55 60
Ala Arg Leu Glu Thr Ile Leu Lys Ala Asn Lys Ile Pro Phe Arg Ala
65 70 75 80
Ile Asp Val Ala Thr Asp Asp Ala Ala Arg Lys Leu Trp Gly Arg Arg
85 90 95
Ser Lys Gly Lys Lys Leu Pro Gly Leu Val Lys Phe Gly Thr Val Val
100 105 110
Gly Val Gly Leu Ser Asp Ala Pro Leu Met Lys Gly Gly Thr Ala Met
115 120 125
Arg Arg Ser Tyr Val Thr Asn Ser Phe Ala His Val Gly Ser Arg Gly
130 135 140
His Arg Gly Val Glu
145

<210> 37311
<211> 105
<212> PRT
<213> A.fumigatus

<400> 37311
Cys Tyr Arg Cys Gly Phe Arg Leu Glu Arg Arg Val His Phe Ile Leu
1 5 10 15
Lys Leu Pro Thr Asp Glu Pro His Ile Ser His Tyr Lys Glu Phe Asn
20 25 30
Asp Phe Ala Ser Lys Ser Glu Ser Val Pro Gln Pro His Asn Thr Ile
35 40 45
Ile Asp Arg Val Ala Leu Ala Thr Gln Cys Ala Lys Glu Leu Ser Ser
50 55 60
Ser Ser Asn Thr Ala Ala Glu Asp Thr Ser Leu Thr Cys Cys Phe Val
65 70 75 80
His Ala Cys Glu Asn Ser Thr Gly Ser Glu Cys Thr Ser Ile Phe Gly
85 90 95
Trp Gln Cys Asn Phe Gly Pro Gly Leu
100 105

<210> 37312
<211> 199
<212> PRT
<213> A.fumigatus

<400> 37312
Asp Leu Glu Asp Ile Glu Glu Trp Asn Glu Tyr Gly Glu Leu Arg Met

```
1               5                   10                  15
His Ile Asp Ser Val Glu Asp Phe Asp Ser Ile Pro Ala Thr Ser Tyr
            20                  25                  30
Pro Leu Ser Thr Ser Gln Thr Asn Thr Gly Ser Ala Thr Pro Ala Thr
        35                  40                  45
Pro Gln Pro Pro Ala Gln Ser Ala Thr Pro Lys Gln Ser Thr Ile Lys
    50                  55                  60
Ile Gln Ser Pro Pro Ala Lys Glu Gln Lys Asp Asp Ser Val Thr Leu
65                  70                  75                  80
Ala Leu Arg Gln Ala Gly Ala Glu Ala Ala Ala Lys Ala Lys Gly Asn
                85                  90                  95
Thr Ser Ala Asp Val Lys Lys Asp Asn Thr Ser Ala Asp Ser Glu Gln
            100                 105                 110
Gln Lys Gly Glu Pro Pro Ser Ser Gly Glu Asn Lys Glu Gly Glu Glu
        115                 120                 125
Thr Val Arg Arg His Ser Val Val Pro Ala Glu Ile Val Gly Gly Cys
    130                 135                 140
Gly Gly Arg Pro Pro Leu Arg Val Pro Glu Cys Ala Ala Glu Ser Ser
145                 150                 155                 160
Ala Asp Phe Arg Ala Asp Asn Ala Glu Ala Leu Gly Leu Val Gln His
                165                 170                 175
His Arg Gly Ser Ile Val Ser Ala Thr Ser Pro Glu Glu Met Glu Lys
            180                 185                 190
Trp Phe Lys Asn Ser Ala Ser
        195
```

<210> 37313
<211> 381
<212> PRT
<213> A.fumigatus

<400> 37313

```
Arg Asn Gln Gln Gly Ile Pro Gln His Arg Met Ala Asp Ala Ser Arg
1               5                   10                  15
Thr Ser Met Arg Cys Pro Leu Ser Arg Gln Val Arg Gly Thr Lys Leu
            20                  25                  30
Asn Thr Ile Ile Glu Glu Ala Ser Glu Ser Leu Asp Ser Asp Lys Val
        35                  40                  45
Glu Ser Asn Gly Val Gly Leu His Ser Ile Thr Ser Gly Pro Gln Leu
    50                  55                  60
Lys Leu Met Thr Ala Gly Leu Ser Ser Leu Ser Leu Ser Lys Leu Asn
65                  70                  75                  80
Arg Leu Arg Ser Pro Leu Ser Ala Gly Thr Thr Ser Ser Cys Ser Asp
                85                  90                  95
Thr Glu Trp Gln Arg Gln Met Gln Ser Leu Asp Asp Leu Tyr Asp Val
            100                 105                 110
Thr Asp Val Asp Ser Asp Leu Ser Asp Glu Cys Thr Ser Phe Ser Ser
        115                 120                 125
Ser Arg Pro Thr Ser Leu Thr Ser Pro Thr Thr Arg Asn Ser Met Thr
    130                 135                 140
Ser Pro Leu Asn Arg Asn Arg Tyr Pro Ser Leu Thr Ile Pro Ser Ser
145                 150                 155                 160
Thr Ala Trp Pro Ser Leu His Asn Val Pro Lys Ser Ser Pro Val Pro
                165                 170                 175
Pro Thr Pro Pro Pro Lys Ile Pro Val Ser Pro Ala Ala Leu Ser Met
            180                 185                 190
```

```
Leu Ala Arg Thr Val Pro Ala Leu Asn Ala Pro Pro Ser Leu Asp Gly
        195                 200                 205
Ser Val Thr Ser Asp Gln Val Ser Asn Ser Ser Glu Pro Ile Thr Pro
    210                 215                 220
Asp Leu Gln Ser Leu Pro Asp Ala Asp Trp Asp Ala Asp Met His Val
225                 230                 235                 240
Arg Pro Glu Met Met Asn Ser Arg His Ala Asp Ile Asp Thr Asp Gly
                245                 250                 255
Ile Asp Pro Gln Val Gln Ser Ile Glu Ile Ala Ile Glu Lys Pro Asp
            260                 265                 270
Glu Asp Trp Pro Leu Val Leu Cys Ser Phe Pro Ala Ile Pro Asn Gln
        275                 280                 285
Ser Asn Leu Ala Ser Glu Cys Gly Ile Phe Leu Pro Glu Asp Ala Leu
    290                 295                 300
Leu Thr Trp Lys His Thr Pro Trp Gly Gly Thr Arg Asn Leu Gly His
305                 310                 315                 320
Lys Asn Leu Phe Lys Arg Arg Lys Trp Arg Phe Asn Tyr Leu Leu Asn
                325                 330                 335
Val Pro Pro Ala Pro Ile Ile Glu Phe Arg Leu Cys Ala Leu Arg Asn
            340                 345                 350
Ser Leu Tyr Gly Ala Ile Tyr Leu Ser Pro Glu Gly Ser Leu Val His
        355                 360                 365
Leu Trp Pro Gly Pro Ser His Gly Ser Asn Gln Lys Lys
    370                 375                 380
```

<210> 37314
<211> 64
<212> PRT
<213> A.fumigatus

<400> 37314

```
Phe Asn Ile Thr Ala Ala Leu Leu Ser Pro Gln Leu Pro Gln Arg Lys
1               5                   10                  15
Trp Arg Ser Gly Ser Arg Ile Ala Gln Val Asn Ile Arg Ala Ser Arg
            20                  25                  30
Arg Asn Ile Ser Gly Leu Glu Asn Glu His Ala Glu Arg Gln Asp Lys
        35                  40                  45
Met Arg Gln Ser Trp Lys Ile Gln Asn Gly Glu Glu Asn Lys Asn Gly
    50                  55                  60
```

<210> 37315
<211> 191
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (177)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37315

```
Ser Pro Thr Gln Asn Ser Ser Leu Cys Leu Asn Ser Ser Gln Val Arg
1               5                   10                  15
Gln Tyr Leu Asp Thr Phe Val Arg Thr Ala Tyr Glu Ser Tyr Val Leu
            20                  25                  30
Gly Phe Pro Thr Ser Asp His Leu Leu Thr Leu Ser Lys Val Asn Val
```

```
        35                  40                  45
Phe Arg Ala Phe Ala Ser Ile Met Ser Leu Leu Gly Met Ser His Thr
    50                  55                  60
Asp Asp Trp Met His Asp Asp Ala Leu Ser Pro Phe Val Thr Met Gly
65                  70                  75                  80
Pro Gly Tyr Ile Asp Glu Gln Lys Leu Pro Pro Ser Leu Arg Pro Thr
                85                  90                  95
Arg Leu Gln Lys Thr Ile Pro His His Pro Trp Leu Asp Phe Phe Pro
            100                 105                 110
Ile Pro Lys Ile Arg Asp Asn Leu Leu Thr Thr Gly Glu Asp Asn Phe
        115                 120                 125
Asp Asp Cys Gln Leu Cys Val Asp Ile Met Gly Phe Trp Asp Ser Gly
    130                 135                 140
Met Asp Ala Cys Cys Met Leu Val Trp Gly Asp Pro Thr Asp Pro Lys
145                 150                 155                 160
Asn Trp Glu Val Thr Glu Arg Phe Leu Lys Lys Trp Pro Trp Val Val
                165                 170                 175
Xaa Gly Val Leu His Ala Gln Gly Ala Glu Gly Pro His Met Arg
            180                 185                 190
```

<210> 37316
<211> 94
<212> PRT
<213> A.fumigatus

<400> 37316

```
Ser Ser Cys Gly Lys Thr Tyr Ala Asn Phe Phe Val Phe Gly Ile Phe
1               5                   10                  15
Glu Leu Leu Asp Glu Gly Asn Gln Lys Ile Phe Ser Tyr Leu Lys Thr
            20                  25                  30
Trp Lys Glu Gln Cys Met Leu Val Val Leu Asn Phe Ser Glu Glu Pro
        35                  40                  45
Gln Pro Phe Gln Lys Pro Met Glu Leu Gln Asn Arg Asp Leu Lys Leu
    50                  55                  60
Phe Val Ser Asn Ile Gly Lys Pro Val Ser Gly Glu Cys Glu Leu Gln
65                  70                  75                  80
Pro Tyr Glu Gly Arg Ile Phe Glu Val Lys Ala Ile Pro Asn
                85                  90
```

<210> 37317
<211> 75
<212> PRT
<213> A.fumigatus

<400> 37317

```
Cys Cys Leu Cys His Asp Leu Ser Met Thr Lys Asp Ile Val Glu Gln
1               5                   10                  15
Leu Met Leu Asp Val Trp Thr Leu Gln Tyr His Tyr Cys Asp Ile Ser
            20                  25                  30
Ile Leu Trp Asn Ser Thr Val Pro Ala Tyr Val Asn Tyr Asn Thr Leu
        35                  40                  45
Ser Phe His Leu Ser Ser Gln Thr Asn Ser Thr Tyr Gln Gln Gly His
    50                  55                  60
Phe Ser Leu Ile Arg Glu Phe Cys Cys Ser Glu
65                  70                  75
```

<210> 37318
<211> 492
<212> PRT
<213> A.fumigatus

<400> 37318
Gly Cys Leu Phe Ala Lys Met Asp Ala Thr Arg Leu Lys Lys Pro Gln
1 5 10 15
Val Ser Arg Ala Cys Asp Pro Cys Arg Arg Arg Lys Val Arg Cys Asn
20 25 30
Gly Gln His Arg Cys Gln Gln Cys Glu His Leu Asp Leu Leu Cys Thr
35 40 45
Tyr Ser Asp Asn Gln Arg Ala Arg Ser Arg Lys Asn Ala Leu Arg Arg
50 55 60
Gly Thr Val Ile Ser Glu Tyr Lys Ile Pro Phe Ala Arg Glu Leu Lys
65 70 75 80
Ser Glu His Ile Ser Thr Ser Val Leu Val Pro Pro Ser Ser Leu Pro
85 90 95
Asp Leu Lys Ser Val Ala Leu Ser Thr Ser Tyr Leu Tyr Ser Leu Ile
100 105 110
Pro Lys Tyr Met Ala Tyr Val Tyr Pro Phe Asn Pro Ile Met Thr Asp
115 120 125
Glu Glu Ile Arg Glu Ser Ile Gly Lys Met Ala Thr Asp Arg Asp His
130 135 140
Ala Ala Phe Val Tyr Ala Phe Thr Gly Val Thr Ile Asp Leu Thr Gln
145 150 155 160
Ser Asn Ala Ala Thr Ser His Val Ser Glu Gln Ile Asn Glu Leu Ala
165 170 175
Gly Arg Ala Ile Gln Leu Arg Thr Pro Leu Leu Pro Gly Phe Arg Pro
180 185 190
Ser Ile Leu Arg Ala Val Thr Ser Val Tyr Ile Gln Met Cys Tyr Met
195 200 205
Ser Leu Gly Gln Tyr Asp Leu Gly Phe Phe Tyr Leu Arg Glu Ala Ile
210 215 220
Ser Met Val His Leu Leu Arg Ile Glu Asp Lys Ala Val Met Ala Ser
225 230 235 240
Leu Asp Leu Thr Glu Arg Ser Arg Arg Gln Arg Leu Tyr Trp Leu Cys
245 250 255
Phe Ile His Glu Arg Phe Met Ser Ile Phe His Phe Ser Pro Ala Thr
260 265 270
Leu Ser Pro Tyr Ala Gln Phe Pro Glu Asp Asp Pro Ser Leu Asp Pro
275 280 285
Ser Val Ser His Gly Trp Val Gln Val Ile Lys Thr Phe Leu Leu Leu
290 295 300
Glu Pro Thr Phe Ile Ser Leu Trp Ile Gly Asp Arg Ser Gln Val Thr
305 310 315 320
Val Ala Trp Val Glu Gln Lys His Arg Glu Leu Asp Asp Glu Leu Trp
325 330 335
Glu Leu Glu Val Ser Met Leu Ser Asp Leu Gln Gln Ala Asp Leu Val
340 345 350
Val Thr Arg Gln Trp Met Arg Thr Leu Leu Trp Gln Met Ala Met Ser
355 360 365
Asn Cys Leu Leu Ser Ser His Ala Ser Cys Pro Ser Leu Ser Leu Glu
370 375 380
Met Pro Leu Arg Leu Ser Ser Gln Leu Arg Gln Phe Leu Thr Lys Ile
385 390 395 400

```
Ser Gln Asn Thr Ile Gln Ile His Gly Ser Ser Ile Leu Ser Lys Leu
                405                 410                 415
Leu Glu Ile Ile Asn Thr Ile Ala Asp Val Val Leu His Gly Pro Gln
            420                 425                 430
Val Thr Leu Glu Glu Thr Thr Ser Arg Ile Asp Asp Ile Leu Phe Leu
        435                 440                 445
Lys Asp Val Ile Phe Ser Phe Arg Asn Leu Gln Gln Val Ser Lys Lys
    450                 455                 460
Ile Leu Ile Glu Lys Leu His Leu Ile Gly Glu Arg Phe Ala His Ile
465                 470                 475                 480
Glu Val Ala Ser Gln Leu Leu Cys Gly Gln Gly Ala
                485                 490
```

<210> 37319
<211> 73
<212> PRT
<213> A.fumigatus

<400> 37319

```
Arg Arg Thr Ser Leu Ser Met Tyr Gly Arg Gly Thr Glu Gln Ile Arg
1               5                   10                  15
Cys Arg Leu Leu Pro Glu Val Val Phe Gly Ile Ile Ile Ile Arg Lys
            20                  25                  30
Ile Lys Thr Met Asp Lys Phe Leu Cys Phe Ser Ser Asp Phe Glu Ser
        35                  40                  45
Asn Gly Trp Lys Leu Leu Asp Asn Leu Ser Val Phe Arg Asn Ile Tyr
    50                  55                  60
Arg Ile Leu Ala Leu Ser Cys Cys Phe
65                  70
```

<210> 37320
<211> 382
<212> PRT
<213> A.fumigatus

<400> 37320

```
His Glu Glu Gln Met Thr Gly Ala Ala Lys Gln Glu Trp Asp Thr Leu
1               5                   10                  15
Lys Met Glu Leu Glu Ser Arg Ile Ser Gln Ala Glu Glu Leu Asn Thr
            20                  25                  30
Ser Leu Gln Leu Glu Leu Glu Lys Val Arg Thr Glu Arg Asp Ala Thr
        35                  40                  45
Glu Arg Asp Leu Arg Ser Gln Leu Asn Glu Ala Ser Gln Gln Ser Ala
    50                  55                  60
Gly Asp Ala Gly Leu Gln Ser Gln Phe Ser Glu Leu Gln Ile Lys Tyr
65                  70                  75                  80
Arg Asp Leu Gln Ala Glu Leu His Gln Gln Gln Val Thr Glu Glu
                85                  90                  95
Val Arg Arg Glu Ala Ser Thr Phe Leu Met Glu Met Lys Ala Leu Ser
            100                 105                 110
Glu Gln Thr Gln Ser Arg Trp Glu His Glu Glu Arg Leu Ser Gly Glu
        115                 120                 125
Val Gln Arg Leu Glu Asp Glu Leu Gln Gln Trp Lys Thr Arg Tyr Ala
    130                 135                 140
Lys Val Lys Thr Gln Leu Arg His Leu Arg Ala Ser Ser Gly Ile Ser
145                 150                 155                 160
```

```
Glu Thr Arg Pro Gly Leu Ser Thr Val Ile Gln Asp Asn Gly Phe Met
                165                 170                 175
Gln Asp Asp Gly Leu Val Lys Asp Ile His Val Thr Lys Phe Gln Ile
            180                 185                 190
Ser Ile Asp Glu Leu Leu Arg Val Ala Arg Ser Asp Glu Tyr Gln Leu
        195                 200                 205
Val Met His Gln Ile Lys Gly Val Ile Leu Ala Val Arg His Val Leu
    210                 215                 220
Asn Asp Ile Glu Ser Thr Gln Asn Pro Ala Asp Gly Leu Ala Ala Met
225                 230                 235                 240
Arg Thr Lys Ala Thr Arg Lys Val Ser Ala Thr Ala Asn Asn Met Ile
                245                 250                 255
Thr Ala Ala Lys Asn Phe Val Arg Ser Asn Gly Leu Ser Pro Val Ser
            260                 265                 270
Leu Leu Asp Ala Ala Ala Ser His Leu Ser Thr Ala Val Ile Glu Leu
        275                 280                 285
Ile Arg Leu Val Lys Ile Arg Pro Thr Pro Glu His Glu Leu Asn Glu
    290                 295                 300
Asn Glu Glu Glu Arg Asp Gln Phe Ser Gln Met Lys Ser Pro Asp Tyr
305                 310                 315                 320
Phe Ser Val Ala Pro Ser Gln Ser Arg Met Ser Asn Asn Asp Ser Ile
                325                 330                 335
Tyr Ser Ala Met Ser Asp Pro Ser Asn Arg Thr Pro Asn Gly Thr His
            340                 345                 350
Ser His Leu Asp Ala Gly Ser Gln Asn Gly Ala Leu Thr Gly Ser Gln
        355                 360                 365
Leu Lys Ser Glu Asp His Glu Leu Gln Glu Leu Lys Val Ser
    370                 375                 380
```

<210> 37321
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37321

```
Leu Leu Cys Ser Asn Gly Ser Gln Phe Phe Ile Thr Thr Ala Val Thr
1               5                   10                  15
Ser Trp Leu Asp Gly Lys His Val Val Phe Gly Glu Val Ala Asp Glu
            20                  25                  30
Lys Ser Tyr Ser Val Val Lys Glu Ile Glu Ala Leu Gly Ser Ser Ser
        35                  40                  45
Gly Ser Val Arg Phe Asn Thr Arg Pro Lys Ile Val Lys
    50                  55                  60
```

<210> 37322
<211> 192
<212> PRT
<213> A.fumigatus

<400> 37322

```
Pro His Leu Ala Arg Pro Ser Leu Leu Val Pro Ser Ser Pro Pro Leu
1               5                   10                  15
Ser Ile Ala Ile Ser His Pro Ser Cys Leu Phe Ala Asp Ser Ile Lys
            20                  25                  30
Pro Leu Pro Pro Cys Leu Arg Ser Ser Ser Thr Ser Ser Thr Pro Leu
        35                  40                  45
```

```
Trp Ala Pro Leu Lys Val Ser Tyr Ser Ala Pro Ser Leu Thr Leu Phe
    50                  55                  60
Tyr Leu Val Tyr Gly Leu Gly Tyr Asn Cys Ile Thr Pro Pro Ser Arg
65                  70                  75                  80
Phe Ser Ala Ser Ala Arg Asn Cys Ala Gln Ser Gly Leu Asp Ala Phe
                85                  90                  95
Gly Leu Gln Ser Ile Leu Ser Ile Leu Phe Thr Asp Gly Ile Leu Leu
            100                 105                 110
Arg Ala Val Thr Ala Lys Val Gly Arg Ile Val Phe Asn Leu Phe Asp
        115                 120                 125
Lys Asp Val Pro Lys Thr Ala Lys Asn Phe Arg Glu Leu Cys Lys Arg
    130                 135                 140
Pro Ala Gly Glu Gly Tyr Arg Glu Ser Thr Phe His Arg Ile Ile Pro
145                 150                 155                 160
Asn Phe Met Ile Gln Gly Gly Asp Phe Thr Arg Gly Asn Val Ser Phe
                165                 170                 175
Arg His Pro Gln His Arg Ser Cys Arg Ser Arg Leu Leu Ser Gly Phe
            180                 185                 190
```

<210> 37323
<211> 445
<212> PRT
<213> A.fumigatus

```
<400> 37323
Ser His Arg Gln Ala Ser Lys Thr Tyr Ala His Tyr Ser Arg Phe Tyr
1               5                   10                  15
Ala Pro Trp Cys Gly His Cys Gln Asn Leu Lys Pro Ala Tyr Glu Lys
            20                  25                  30
Ala Ala Lys Asn Leu Glu Gly Leu Ala Lys Val Ala Ala Val Asn Cys
        35                  40                  45
Asp Asp Asp Ala Asn Lys Pro Leu Cys Gly Arg Met Gly Val Gln Gly
    50                  55                  60
Phe Pro Thr Leu Lys Ile Val Thr Pro Ser Lys Arg Pro Gly Lys Pro
65                  70                  75                  80
Lys Val Glu Asp Tyr Gln Gly Ala Arg Ser Ala Lys Ala Ile Val Asp
                85                  90                  95
Ala Val Val Asp Arg Ile Pro Asn His Val Lys Arg Val Thr Asp Lys
            100                 105                 110
Asp Leu Asp Gln Trp Leu Ser Glu Asp Gln Glu Ser Pro Lys Ala Val
        115                 120                 125
Leu Phe Thr Glu Lys Gly Thr Thr Ser Ala Leu Leu Lys Ala Val Ala
    130                 135                 140
Ile Glu Phe Leu Gly Ser Ile Lys Val Gly Gln Ile Arg Asn Lys Glu
145                 150                 155                 160
Ser Lys Ala Val Glu Lys Phe Gly Val Lys Glu Phe Pro Thr Leu Val
                165                 170                 175
Leu Val Pro Gly Gly Asp Lys Glu Pro Ile Ile Tyr Asp Gly Glu Leu
            180                 185                 190
Lys Lys Gln Ala Ile Val Glu Phe Leu Ser Gln Val Ala Ala Pro Asn
        195                 200                 205
Pro Asp Pro Ala Pro Ala Ser Thr Asp Ala Lys Ser Ser Lys Ala Thr
    210                 215                 220
Lys Ser Ala Lys Ser Pro Lys Ser Ser Thr Ile Leu Ser Glu Glu Ala
225                 230                 235                 240
Glu Asn Leu Lys Pro Thr Ala Ser Pro Asp Pro Lys Val Val Pro Asp
```

```
                245                 250                 255
Asp Ala Thr Glu Ser Lys Pro Ala Gln Val Pro Ile Gln Ala Pro Pro
            260                 265                 270
Ile Pro Val Leu Pro Thr Ala Glu Glu Leu Glu Ala Ala Cys Leu Lys
        275                 280                 285
Pro Thr Ser Gly Thr Cys Val Leu Ala Leu Leu Pro Glu Pro Arg Glu
    290                 295                 300
Gly Asp Ala Asp Val Ser Ser Pro Ala Lys Glu Ala Leu Thr Ser Leu
305                 310                 315                 320
Ser Glu Ile Ala His Lys His Ala Gln Arg Lys Ser Lys Leu Phe Pro
                325                 330                 335
Phe Tyr Ser Ile Pro Ala Ile Asn Ser Gly Ala Lys Thr Leu Arg Ala
            340                 345                 350
Gly Leu Gly Leu Ser Glu Asp Gln Thr Ser Val Glu Ile Ile Ala Leu
        355                 360                 365
Asn Gly Arg Arg Gly Trp Trp Arg Arg Tyr Asp Ala Ser Glu Ala Gln
    370                 375                 380
Asp Tyr Gly Ala Val Ser Val Glu Ala Trp Ile Asp Ala Ile Arg Leu
385                 390                 395                 400
Gly Glu Gly Ser Lys Ser Lys Leu Pro Asp Gly Val Ile Val Glu Gln
                405                 410                 415
Lys Glu Glu Gly Asp Val Glu Ala Lys Lys Asp Ala Asp Lys Glu Asn
            420                 425                 430
Leu His His Gly Thr Ala Gly Pro Arg Leu Leu Tyr Pro
        435                 440                 445
```

<210> 37324
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37324

```
Leu Ser Lys Arg Gly Gln Gln Ala Tyr Leu Glu Leu Ser Thr Trp Val
1               5                   10                  15
Leu Lys Gln Gly Val Leu Lys Leu Leu Ala Cys Asp Gly Gly Asp Gln
            20                  25                  30
Asn Ser Ser Ala Met Met Gln Thr Ile His Glu Arg Ile Phe Ser Phe
        35                  40                  45
Pro His Ala Met Ala Tyr Ser Ala Thr Ala Leu Phe Thr
    50                  55                  60
```

<210> 37325
<211> 529
<212> PRT
<213> A.fumigatus

<400> 37325

```
Leu Leu Leu Asp Thr Leu Pro Cys Thr Thr Val Lys Met Met Ala Glu
1               5                   10                  15
Val Lys Val Thr Pro Glu Pro Pro Arg Gly Pro Gly Thr Ala Asp Phe
            20                  25                  30
Leu Phe Met Pro Leu Glu Val Phe Trp Met Ile Leu Gln Tyr Leu Asp
        35                  40                  45
Ala Arg Asp Ile Val Arg Cys Arg Arg Val Ser Lys His Trp Lys Glu
    50                  55                  60
Ala Phe Thr Asn Pro Glu Tyr Leu Val Arg Leu Leu Ile Arg Leu Phe
```

```
65                  70                  75                  80
Pro Ser Ala Pro Glu Val Arg Gly Leu Lys Asp Lys Gln Ser Leu Asp
                85                  90                  95
Glu Leu Leu Ser Ala Val Gln Ser Gly Glu His Trp Arg Glu Leu Phe
            100                 105                 110
Asp Lys Val Ala Ser Arg Tyr Asp His Leu Ser Arg Gly Lys Pro Arg
        115                 120                 125
Ser Val Gln Lys Leu Lys Leu Cys Asp Asp Phe Gly Val Thr Gly Glu
    130                 135                 140
Arg Glu Trp Phe Gln Val Gln Pro Trp Asp Ser His Ala Ser His Leu
145                 150                 155                 160
Met Gln Arg Val Asp Tyr Leu Tyr Pro Glu Thr Phe Trp Thr Tyr Glu
                165                 170                 175
Asp Gly Leu Leu Val Tyr Pro Ser Ala Asp Tyr Ser Ser Leu Val Leu
            180                 185                 190
Met Asp Val Glu Thr Gly Lys Gln Val Met Val Pro Phe Leu Ile Ile
        195                 200                 205
Gly Lys Val Ile Arg Arg Ile Arg Leu Gln Lys Arg Val Leu Val Val
    210                 215                 220
Glu Trp Ala Glu Pro Lys Ala Phe His Trp Leu Asn Asp Ser Asp Gly
225                 230                 235                 240
Val His Arg His Phe Ala Ser Ser Phe Asp Val Ala Gln Glu Ala Asn
                245                 250                 255
Gly Ser Trp Asn Val Ser Phe Arg Asn Glu Trp Lys Ile Met Phe Leu
            260                 265                 270
Gly His Pro Leu Ser Glu Arg Asp Arg Phe Tyr Ser Thr His Asn Lys
        275                 280                 285
Thr His Tyr Val Ile Tyr Ile Trp Gln Pro Asn Arg Ser Leu Tyr Thr
    290                 295                 300
Ala Asp Glu Asp Ala Pro Ile Glu Ser Leu Phe Val Trp Asp Ile Ser
305                 310                 315                 320
Lys Pro Cys Pro Tyr Arg Pro Ser Leu Asp Pro Thr Gly Arg Gln Arg
                325                 330                 335
Lys Glu Glu Gln Asp Gln Ala Pro Ala Ile Val Ser Arg Phe Gly Phe
            340                 345                 350
Arg Glu Leu Gly Phe Phe Ser Val Arg Gln Arg Gly Val Pro Gly Ile
        355                 360                 365
Gln Gly Leu Glu Ile Thr Asp Asp Gly Gln Ala Ile Glu Ile Ile Glu
    370                 375                 380
Asn Leu Cys Thr Gly Pro Leu Asp Arg Leu Val Gly Pro Thr Glu Trp
385                 390                 395                 400
Thr Ser Gln Val Gln Ile Thr Ser Ile Pro Leu Ile Gly Asp Gly Pro
                405                 410                 415
Val Trp Arg Arg Asp Val Gly Tyr Ile Leu Ser Pro Tyr Arg Gly Ser
            420                 425                 430
Asn Gly Leu Gln Thr Lys Pro Leu Gly Leu Leu Cys Lys Gln Phe Trp
        435                 440                 445
Tyr Thr Val Ile Ser Glu Val Tyr Asp Arg Asn Ser Lys Ala Gly Phe
    450                 455                 460
Ala Leu His Leu Ser Pro Leu Gly Trp Pro Phe Asp Ser Arg Ile Tyr
465                 470                 475                 480
Met Ser Ile Gln Thr Pro Tyr Ser Arg Ile Val Leu Lys Pro Asp Asp
                485                 490                 495
Val Phe Glu Leu Ala Gly Arg Gly Lys Ile Cys Gly Asn Glu Lys Phe
            500                 505                 510
Val Ile Gly Glu Asn Ala Asn Arg Glu Leu Val Ile Trp Arg Phe Asp
```

515 520 525

Arg

<210> 37326
<211> 222
<212> PRT
<213> A.fumigatus

<400> 37326
Glu Asp Gln Val Leu Pro Gly Leu Ile Asn Ala Val Leu Leu Thr Val
1 5 10 15
Val Leu Ser Ala Ala Asn Ser Asn Val Tyr Ser Gly Ser Arg Val Leu
20 25 30
Leu Gly Leu Ala Arg Glu Gly Phe Ala Pro Gln Trp Phe Ala Lys Val
35 40 45
Thr Gln Arg Gly Val Pro Tyr Ile Ser Val Ala Phe Thr Ala Ala Phe
50 55 60
Gly Leu Leu Gly Phe Leu Asn Leu Ser Glu Ser Gly Gly Lys Val Phe
65 70 75 80
Asn Trp Leu Val Asn Ile Ser Gly Val Ala Gly Phe Ile Cys Trp Ala
85 90 95
Ser Ile Asn Ala Cys His Ile Ala Phe Met Arg Val Leu Ala Ala Arg
100 105 110
Asn Ile Ser Arg Asp Thr Leu Pro Tyr Lys Ala Ile Trp Gln Pro Trp
115 120 125
Leu Ala Tyr Tyr Gly Leu Phe Phe Asn Ile Leu Ile Ile Phe Thr Gln
130 135 140
Gly Phe Thr Ala Trp Ile Pro Thr Phe Asp Val Ser Asp Phe Phe Val
145 150 155 160
Ala Tyr Val Cys Pro Ile Leu Phe Ala Val Leu Tyr Leu Gly His Lys
165 170 175
Ile Val Phe Arg Thr Lys Phe Val Asp Pro Leu Glu Ala Asp Leu Asp
180 185 190
Ser Ala Arg Val Glu Thr Lys Ser Thr Ser Trp Glu Thr Ser Ala Pro
195 200 205
Asn Lys Gly Trp Phe Glu Arg Val Lys Gly Arg Phe Ile Gly
210 215 220

<210> 37327
<211> 130
<212> PRT
<213> A.fumigatus

<400> 37327
Ser Thr Pro Cys Ser Ser Pro Ser Ser Ser Pro Pro Pro Thr Pro Thr
1 5 10 15
Ser Thr Ala Ala Ala Val Cys Ser Ser Val Ser Arg Ala Arg Ala Ser
20 25 30
Pro Arg Asn Gly Ser Pro Lys Ser Arg Ser Ala Ala Cys Pro Thr Ser
35 40 45
Ala Trp Pro Ser Pro Pro Arg Ser Gly Ser Ser Ala Ser Ser Thr Ser
50 55 60
Pro Ser Pro Ala Ala Arg Ser Ser Thr Gly Trp Ser Thr Ser Pro Ala
65 70 75 80
Trp Arg Gly Ser Ser Ala Gly Arg Pro Ser Thr Pro Ala Thr Leu Arg

```
                85                  90                  95
Ser Cys Ala Cys Trp Pro Arg Ala Ile Ser Pro Ala Ile Pro Cys Arg
            100                 105                 110
Thr Arg Pro Ser Gly Ser Arg Gly Ser Pro Thr Thr Gly Phe Ser Leu
        115                 120                 125
Ile Ser
    130
```

<210> 37328
<211> 135
<212> PRT
<213> A.fumigatus

<400> 37328

```
Arg Pro Gly Pro Pro Arg Pro Asp Gln Arg Arg Ala Pro His Arg Arg
1               5                   10                  15
Pro Leu Arg Arg Gln Leu Gln Arg Leu Gln Arg Gln Pro Cys Ala Pro
            20                  25                  30
Arg Ser Arg Ala Arg Gly Leu Arg Pro Ala Met Val Arg Gln Ser His
        35                  40                  45
Ala Ala Arg Arg Ala Leu His Gln Arg Gly Leu His Arg Arg Val Arg
    50                  55                  60
Ala Pro Arg Leu Pro Gln Pro Leu Arg Val Arg Arg Gln Gly Leu Gln
65                  70                  75                  80
Leu Ala Gly Gln His Leu Arg Arg Gly Gly Val His Leu Leu Gly Val
                85                  90                  95
His Gln Arg Leu Pro His Cys Val His Ala Arg Ala Gly Arg Ala Gln
            100                 105                 110
Tyr Leu Pro Arg Tyr Pro Ala Val Gln Gly His Leu Ala Ala Val Ala
        115                 120                 125
Arg Leu Leu Arg Ala Phe Leu
    130                 135
```

<210> 37329
<211> 177
<212> PRT
<213> A.fumigatus

<400> 37329

```
His Gln Ile Leu Arg Thr Ile Cys Phe Tyr Leu Ser Ile Pro Thr Asn
1               5                   10                  15
Arg Thr Asn Ala Gly Ile Phe Trp Tyr Ser Thr Ile His Leu Cys Glu
            20                  25                  30
Ile Phe Ala Arg Ser Asn Gln Ile His Arg Asn Ile Leu Ala Met Asp
        35                  40                  45
Ala Asn Pro Pro Arg Asn Ala Val Thr Pro Val Asn Thr Thr Asn Thr
    50                  55                  60
Pro Tyr Ser Asp Pro Tyr Ala Pro Asn Ala Pro Ala Phe His Pro Pro
65                  70                  75                  80
Thr Phe Ser Ser Ala Ser Leu Ser Gly Pro Leu Ile Thr Phe Pro Thr
                85                  90                  95
Pro Arg Pro Val Ser Arg Asn Ala Asn Thr Met Leu Thr Cys Ala Glu
            100                 105                 110
Arg Ser Leu Phe Cys Thr Ser Trp Asp Ser Ala Asp Gln Glu Asp Glu
        115                 120                 125
Tyr Pro Pro Ala Lys Asn Pro Tyr Thr Met Gln Lys Ala Tyr Ser Val
```

```
    130                 135                 140
Ala Met Trp Phe Ala Asn Pro His Ser Arg Lys Thr Asp Ala Thr Ala
145                 150                 155                 160
Pro Ala Asp Glu Ser Lys Met His Phe Val Thr Trp Cys Arg Ser Ala
                165                 170                 175
Arg
```

<210> 37330
<211> 102
<212> PRT
<213> A.fumigatus

<400> 37330

```
Gly Leu Ala Tyr Leu Pro Thr Pro Ile Val Ile Ala Ile Met Phe Ala
1               5                   10                  15
Phe Pro Arg Ala Arg Arg Trp Phe Ser Thr Ala Gly Phe Val Ile Met
            20                  25                  30
Cys Leu Ala Leu Gly Leu Ser Ser Phe Ser Thr Ser Val Thr His Leu
        35                  40                  45
Ile Met Ser Gln Gly Val Ala Tyr Gly Ile Gly Gly Cys Leu Ala Tyr
    50                  55                  60
Thr Pro Ser Ile Leu Phe Leu Ser Asp Trp Phe Val Glu Lys Lys Gly
65                  70                  75                  80
Leu Ala Phe Gly Ile Val Trp Val Cys Ser Ser Pro Ser Asn Ser Asn
                85                  90                  95
Gln Pro Pro Lys Leu Ile
            100
```

<210> 37331
<211> 255
<212> PRT
<213> A.fumigatus

<400> 37331

```
Tyr Glu Gly Phe Gly Val Ile Ser Ile Ser Ile Tyr Arg Ser Ile Tyr
1               5                   10                  15
Leu Cys Pro Cys Leu Val Ser Ile Leu Ile Ser Cys Thr Val Ala Met
            20                  25                  30
Leu Ala Asn Lys Pro Thr Leu Asp Pro Leu Lys Pro Pro Leu Val Arg
        35                  40                  45
Ser Arg Arg Leu Pro Arg Gly Thr Leu Arg Leu Asp Ala Cys Gly Ile
    50                  55                  60
Gln Ile Arg Leu Glu Gly Ile His Lys Leu Arg Pro Glu Asp Asn Leu
65                  70                  75                  80
Met Ala Gln Ile Gln His Gly Lys Gln Asp Arg Thr Asp Ile Arg Asp
                85                  90                  95
Glu Glu Ile Arg Asp Ile Lys Arg Gly Asp Pro Arg Arg Glu Pro Leu
            100                 105                 110
Arg Glu Asp Asp Gln Asp Ile Lys Glu Lys Pro Val Val Gly Glu Pro
        115                 120                 125
Arg Leu Pro Asp Gly Leu Val Arg Gln Gly Ile Ala Gly Asp Ile Ala
    130                 135                 140
Arg Gly Gln His Ala His Glu Arg Asn Val Ala Gly Val Asp Gly Arg
145                 150                 155                 160
Pro Ala Asp Glu Pro Arg His Ala Gly Asp Val Asp Gln Pro Val Glu
```

```
                165                 170                 175
Asp Leu Ala Ala Gly Leu Gly Glu Val Glu Glu Ala Glu Glu Pro Glu
            180                 185                 190
Arg Gly Gly Glu Gly His Ala Asp Val Gly His Ala Ala Leu Arg Asp
        195                 200                 205
Phe Gly Glu Pro Leu Arg Gly Glu Ala Leu Ala Arg Glu Thr Glu Glu
    210                 215                 220
His Thr Ala Ala Ala Val Asp Val Gly Val Gly Gly Gly Glu Asp Asp
225                 230                 235                 240
Gly Glu Glu His Gly Val Asp Gln Ala Gly Glu Asp Leu Val Phe
                245                 250                 255
```

<210> 37332
<211> 375
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (163),(177),(180)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37332

```
Gly Glu Thr Asp Lys Ala Leu Val Gly Pro Gly Leu Pro Ala His Thr
1               5                   10                  15
His Arg His Arg His His Val Cys Ile Pro Pro Ser Pro Ala Leu Val
            20                  25                  30
Leu Asp Arg Gly Ile Arg His His Val Ser Gly Pro Gly Ser Glu Phe
        35                  40                  45
Val Leu Asp Lys Arg His Pro Leu Asp His Val Ala Gly Ser Gly Ile
    50                  55                  60
Arg His Trp Arg Met Pro Ser Leu His Ala Val His Pro Leu Pro Ile
65                  70                  75                  80
Arg Leu Val Arg Gly Glu Glu Arg Pro Arg Leu Arg His Arg Leu Gly
                85                  90                  95
Met Leu Leu Ser Val Gln Leu Gln Pro Thr Pro Gln Thr Asn Leu Ala
            100                 105                 110
Gln Ser Gly Ser Gly Leu Thr Gly Ile Leu Phe Pro Leu Ile Leu Gln
        115                 120                 125
Thr Leu Leu Asn Gln Tyr Gly Trp Gln Thr Thr Leu Arg Ala Cys Ser
    130                 135                 140
Ile Ala Leu Phe Leu Leu Ala Ala Pro Phe Met Thr Phe His Lys Pro
145                 150                 155                 160
Arg Val Xaa Ile Arg His Ser His Leu Arg Gln Leu Ser Leu Ala Phe
                165                 170                 175
Xaa Trp Asp Xaa Val Tyr Leu Ile Tyr Gln Leu Gly Asn Thr Met Gln
            180                 185                 190
Ala Ile Gly Phe Trp Ile Pro Ser Ile Phe Leu Thr Ser Tyr Ala Arg
        195                 200                 205
Thr Leu Gly Ala Ser Asp Phe Leu Ala Ser Leu Thr Val Thr Leu Phe
    210                 215                 220
Asn Leu Met Thr Val Phe Gly Cys Ile Phe Thr Gly Tyr Leu Ala Asp
225                 230                 235                 240
Arg His His Val Thr Lys Cys Ile Leu Leu Ser Ser Ala Gly Ala Val
                245                 250                 255
Ala Ser Val Phe Leu Leu Trp Gly Leu Ala Asn His Ile Ala Thr Leu
```

```
            260                 265                 270
Tyr Ala Phe Cys Ile Val Tyr Gly Phe Phe Ala Gly Gly Tyr Ser Ser
        275                 280                 285
Ser Trp Ser Ala Leu Ser His Glu Val Gln Lys Ser Glu Arg Ser Ala
    290                 295                 300
His Val Ser Met Val Phe Ala Phe Leu Glu Thr Gly Arg Gly Val Gly
305                 310                 315                 320
Asn Val Ile Ser Gly Pro Leu Ser Glu Ala Leu Leu Lys Val Gly Gly
                325                 330                 335
Trp Lys Ala Gly Ala Phe Gly Ala Tyr Gly Ser Glu Tyr Gly Val Leu
            340                 345                 350
Val Val Leu Thr Gly Val Thr Ala Phe Leu Gly Gly Phe Ala Ser Met
        355                 360                 365
Ala Arg Met Phe Arg Trp Ile
    370                 375
```

<210> 37333
<211> 88
<212> PRT
<213> A.fumigatus

<400> 37333

```
Cys Leu Thr Ile Tyr Ala Pro Pro Asn Val Ser Val Thr Ile Met Met
1               5                   10                  15
Thr Lys Asn Gly Leu Met Ile Asn Ala Val Phe Gln Tyr Met Met Lys
            20                  25                  30
Ala Thr Thr Asn Ala Ala Gln Asn Val Ala Met Ala Val Ser Ile Thr
        35                  40                  45
Ala Ser Leu Leu Val Thr Ala Ser Trp Thr Val Pro Ile Ser Asp Met
    50                  55                  60
Met Arg Leu Val Ile Ser Pro Gly Pro Arg Arg Ser Lys Asn Ala Ile
65                  70                  75                  80
Phe Trp Arg Lys Met Ala Ala Arg
                85
```

<210> 37334
<211> 486
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (474)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37334

```
Arg Asp Thr Gly Val Phe Arg Glu Tyr Ser Val Ile Leu Ser Ser Pro
1               5                   10                  15
Pro Thr Glu Ser Ser Trp Gln Ser Leu Asp Phe Leu Phe Trp Glu Glu
            20                  25                  30
Pro Gly Tyr His Gly Pro Asp Leu Leu Asn Ala Pro Asp Asp Ile Arg
        35                  40                  45
Leu Ile Gln Leu Ala Gln Asp Asn Glu Ser Thr Glu Ile Thr Pro Ala
    50                  55                  60
Ser Leu Gly Ser Pro Lys Ala Phe Glu Phe Leu Leu Gln Met Leu Arg
65                  70                  75                  80
```

```
Ala Ser Ala Ser Gly Ala Lys Cys Ala Val Lys Leu Ile Val Pro Leu
                85                  90                  95
His Arg Gly Phe Ile Val Arg Ser Asp Ile Ile Pro Leu Arg Leu Arg
            100                 105                 110
Asp Ser Glu Tyr Val Glu Ser Ala Val Ser Phe Ala Glu Pro Leu Gln
        115                 120                 125
Thr Tyr Ser Gly Lys Lys Val Ala Ile Ser Ser Arg Ala Asp Leu Thr
    130                 135                 140
Thr Tyr Phe Ala Ala Ala Ala Ala Gly Leu Ile Leu Arg Gln Gly Ser
145                 150                 155                 160
Thr His Ala Ser Asp Ala Gly Ser Gln Ala Leu Phe Gln Met Val Glu
                165                 170                 175
Ser Asp Leu Ala Asn Arg Leu Ser Phe Arg Gly Ile Gln Pro Gly Thr
            180                 185                 190
Pro Arg Arg Arg Thr Leu Ala Leu Val Asp Ala Asn Ser Ser His Pro
        195                 200                 205
Gln Asp Gly Leu Gly Phe Tyr Arg Ala Ala Arg Glu Leu Gly Ile Asn
    210                 215                 220
Val Val Val Leu Glu Asn Ala Gly His Trp Leu Glu Asp Pro Ala Gln
225                 230                 235                 240
Ala His Trp Arg Glu Ala Phe Ile Pro Thr Arg Leu Thr Asn Pro Pro
                245                 250                 255
Glu Glu Asp Val Gly Asp His Ile Leu Ala Ser Leu Arg Ala Tyr Gly
            260                 265                 270
Lys Pro Val Asp Gly Ile Val Thr Phe Ala Asp Ser Phe Trp Tyr Tyr
        275                 280                 285
Ile Ala Arg Ile Ala His Glu Ile Gly Val Glu Thr Ala Pro Pro Asp
    290                 295                 300
Ser Met Arg Ile Ala Thr Asn Lys Phe Leu Thr Ser Lys Tyr Val Gly
305                 310                 315                 320
His Asp Ala Tyr Leu Ala Ser Asn Val Asp Glu Ala Leu Arg Ile Ala
                325                 330                 335
Lys Glu Val Ala Leu Pro Tyr Pro Leu Ile Val Lys Pro Cys Asp Gly
            340                 345                 350
Trp Ser Ser Glu Gly Val Ser Arg Val Glu Ser Pro Asp Ala Phe Pro
        355                 360                 365
Ala Ala Ile Lys Ser Ile Asp Thr Ser Arg His Gly Thr Glu Phe Val
    370                 375                 380
Met Glu Pro Tyr Cys Asp Gly Pro Glu Val Asp Val Asn Leu Val Leu
385                 390                 395                 400
Leu Asp Gly Glu Val Leu Phe Ala Glu Ile Cys Asp Asp Leu Pro Lys
                405                 410                 415
Ser Ala Asp Val Asn Gly Leu Thr Val Gly Ser Leu Thr Asn Phe His
            420                 425                 430
Glu Leu Tyr Ser Val Tyr Pro Ser Ala Leu Pro Ser Lys Glu Leu Glu
        435                 440                 445
Leu Leu Ile His Ser Phe Val Asp Thr Leu Leu Arg Leu Gly Ile Arg
    450                 455                 460
Asn Gly Val Met His Leu Glu Glu Arg Xaa Gln Asn Ser Arg Trp Asn
465                 470                 475                 480
Thr Ala Ser Arg Thr Gly
                485
```

<210> 37335
<211> 325
<212> PRT

<213> A.fumigatus

<400> 37335

```
Cys Trp Arg Leu Ser Pro Phe Ala Ala Pro Ser Arg Ile Leu Asn Ser
1               5                  10                  15
Ser Glu Gln Val Ile Tyr Gly Leu Leu Val Ser Val Tyr Asp Gly Phe
            20                  25                  30
Ala Ala Gly Thr Val Ser Ala Ser Glu Leu Arg Ser Lys Thr Ala Thr
        35                  40                  45
Phe Ser Leu Tyr Tyr Val Tyr Leu Ser Ile Gly Leu Phe Ala Phe Thr
    50                  55                  60
Tyr Val Ala Thr Val Gly Phe Tyr Tyr Thr Gly Glu Arg Met Ala Arg
65                  70                  75                  80
Ala Leu Arg Thr Thr Tyr Leu Ala Ala Ile Leu Arg Gln Asn Met Ala
                85                  90                  95
Phe Phe Asp Leu Leu Gly Pro Gly Glu Ile Thr Ser Arg Ile Met Ser
            100                 105                 110
Asp Met Gly Thr Val Gln Glu Ala Val Thr Ser Lys Leu Ala Val Met
        115                 120                 125
Leu Thr Ala Ile Ala Thr Phe Cys Ala Ala Phe Val Val Ala Phe Ile
    130                 135                 140
Met Tyr Trp Lys Thr Ala Leu Ile Ile Ser Pro Phe Phe Val Ile Met
145                 150                 155                 160
Ile Val Thr Glu Thr Leu Gly Gly Ala Tyr Met Val Arg His His Lys
                165                 170                 175
Arg Ala Met Glu Leu Tyr Ser Gln Ala Ala Gly Ile Ala Glu Glu Ala
            180                 185                 190
Ile Ala Ala Ile Lys His Val Thr Ala Phe Gly Ile Gln Thr Leu Leu
        195                 200                 205
Ser Gln Arg Tyr Leu Ser Val Leu Glu Gln Ala Gly Gln Gly Arg Pro
    210                 215                 220
Lys Gly Arg Glu His Gly Ser Gly His Asp Cys Val Asp Glu Arg His
225                 230                 235                 240
Ala Glu Ser Asp Leu Arg Ser Cys Val Leu Gly Arg Leu Asp Leu Ser
                245                 250                 255
Asp Pro Arg Pro Asp Val Arg Gly Gly Ser Glu Arg Asp Asp Val Gly
            260                 265                 270
Arg His Asp Arg Val Leu Cys His Tyr Pro Asn Cys Pro Phe Arg Thr
        275                 280                 285
Gly Leu Ala Val Arg Asp Arg Asn His Gly Gly Asn Pro Glu Val Asp
    290                 295                 300
Arg Glu Thr Ile Ala Ala Arg Ser Thr Gly Gln Gly Arg Arg Arg Ala
305                 310                 315                 320
Phe Asp Arg Arg Gly
                325
```

<210> 37336
<211> 203
<212> PRT
<213> A.fumigatus

<400> 37336

```
Asp Ile Thr Ser Gly Arg Trp Ser Cys Ile Val Arg Leu Pro Gly Leu
1               5                  10                  15
Pro Arg Lys Pro Ser Pro Arg Ser Ser Met Ser Pro Arg Ser Gly Ser
            20                  25                  30
```

```
Arg Pro Ser Ser Pro Ser Gly Ile Cys Pro Cys Trp Ser Lys Pro Ala
        35                  40                  45
Lys Ala Asp Arg Lys Ala Glu Asn Met Val Ala Gly Met Ile Ala Trp
    50                  55                  60
Met Asn Ala Met Pro Asn Leu Ile Tyr Ala Leu Ala Phe Trp Ala Gly
65                  70                  75                  80
Ser Ile Tyr Leu Thr Arg Gly Gln Met Ser Val Ala Glu Val Ser Ala
                85                  90                  95
Thr Thr Leu Ala Val Thr Ile Gly Ser Phe Ala Ile Ile Arg Ile Ala
            100                 105                 110
Pro Ser Ala Gln Ala Leu Leu Ser Gly Ile Ala Ile Thr Gly Glu Ile
        115                 120                 125
Leu Lys Ser Ile Ala Arg Arg Ser Pro Gln Asp Pro Leu Val Lys Glu
    130                 135                 140
Gly Asp Glu Pro Ser Thr Val Val Gly Asp Ile Val Leu Asp Arg Val
145                 150                 155                 160
Gly Leu Ile Tyr Pro Ser Arg Asp Asp Val Asp Ile Leu Gln Asp Val
                165                 170                 175
Ser Leu Arg Cys Ala Ala Met Lys Lys Thr Ala Ile Val Phe Thr Thr
            180                 185                 190
Gly Leu Glu Gly Ser Thr Val Val Ser Ser Lys
        195                 200
```

<210> 37337
<211> 107
<212> PRT
<213> A.fumigatus

```
<400> 37337
Thr Leu Leu Cys Pro Val Met Phe Ser Ser Ile Gly Glu Lys Thr Leu
1               5                   10                  15
Tyr Ile Phe Ala Ile Ser Asn Val Ile Thr Ile Pro Met Val Trp Ala
            20                  25                  30
Leu Tyr Pro Glu Ser Asn Gln Arg Thr Leu Glu Asp Met Asp Leu Leu
        35                  40                  45
Phe Ala Ala Glu Thr Pro Trp Val Trp Asp Ala Glu Arg Thr Phe Ala
    50                  55                  60
Arg Leu Lys Ala Glu Asn Pro Gly Tyr Ile Glu Thr Ala Gly Arg Lys
65                  70                  75                  80
Asn Ser Leu Leu Asp Ser Glu Ala Gly Val Gly Lys Pro Ala Ala Gln
                85                  90                  95
Thr Thr Gln His Glu Glu Asn Val Ser Ser Glu
            100                 105
```

<210> 37338
<211> 98
<212> PRT
<213> A.fumigatus

```
<400> 37338
Asp Asn Leu Arg Met Ala Gln Thr Gln Glu Thr Ala Arg Thr Pro Gly
1               5                   10                  15
Phe Arg Ala Arg Lys Asp Ala Ile Leu Ser Arg Arg Tyr Ile Glu Gly
            20                  25                  30
Gln Ile Ala Asp Gly Lys His Ile Ile Ile Phe Asp Asp Arg Val Leu
        35                  40                  45
```

```
Lys Val Asp Ala Trp Ile Lys Phe His Pro Gly Gly Asp Lys Ser Ile
    50                  55                  60
Lys His Met Val Gly Arg Asp Ala Thr Asp Glu Ile Asn Ala Tyr Gly
65                  70                  75                  80
Phe Arg Gly Ile Gln Asp Asp Ser Asn Leu Gln Arg Leu Thr Ser Ala
                85                  90                  95
Phe Val
```

<210> 37339
<211> 283
<212> PRT
<213> A.fumigatus

<400> 37339

```
His Pro Leu Leu Tyr Arg Leu His Ser Ser Glu Ala Arg Gln Arg Met
1               5                   10                  15
Leu Ser Phe Gln Ile Gly Arg Ile Gln Gly Pro Trp Leu Asn Phe Leu
            20                  25                  30
Pro Pro Ile Gln Gly Gly Lys Phe Arg Pro Tyr Pro Gly Glu Thr Cys
        35                  40                  45
Ser Ser Asp Glu Asp Ser Thr Asp Gln Asp Ile Ser Gln Pro Pro Ser
    50                  55                  60
Pro Val Phe Asp Ala Ala Asp Ala Gly Asp Lys Ala Pro Arg Val Arg
65                  70                  75                  80
Arg Arg Arg Lys Ser Ala Thr Ile Ser Asp Thr Ser Val Ser Thr Thr
                85                  90                  95
Pro Thr Glu Gly Phe Glu Pro Lys Pro Phe Phe Leu Asp Ala Arg Thr
            100                 105                 110
Gln Glu Glu Ile Ile Phe Asp Val Ala Lys Tyr Pro Ser Leu Asp Thr
        115                 120                 125
Ala Asn Gln Glu Glu Ile Lys Arg Lys Tyr Arg Glu Leu Asn Glu Arg
    130                 135                 140
Ile Arg Ala Glu Gly Leu Tyr Asn Cys Asn Tyr Phe Ser Tyr Phe Ile
145                 150                 155                 160
Glu Cys Cys Arg Tyr Thr Leu Leu Ala Thr Leu Ser Tyr Thr Phe Leu
                165                 170                 175
Arg Leu Gly Trp Tyr Gly Ile Ser Ala Phe Leu Leu Gly Cys Phe Trp
            180                 185                 190
His Gln Leu Val Phe Thr Ala His Asp Ala Gly His Met Gly Ile Thr
        195                 200                 205
His Tyr Phe His Val Asp Ser Val Ile Gly Ile Ile Ile Ala Asp Tyr
    210                 215                 220
Leu Gly Gly Leu Ser Leu Gly Trp Trp Lys Arg Asn His Asn Val His
225                 230                 235                 240
His Ile Val Thr Asn Ala Pro Glu His Asp Pro Asp Ile Glu His Met
                245                 250                 255
Pro Phe Phe Ala Ile Ser His Arg Phe Leu Thr Ser Arg Leu His His
            260                 265                 270
Ala Pro Leu Glu Gly Ser Glu Leu Ala Gln Leu
        275                 280
```

<210> 37340
<211> 114
<212> PRT
<213> A.fumigatus

<400> 37340
Phe Gly Arg Gln Asn Pro Ala Gln Asp Asn Gly Met Asn Cys Thr Pro
1 5 10 15
Tyr Ile Ser Val Leu Ile Ala Asn Cys Val Gln Val Thr Lys Cys Ser
20 25 30
Ala His Ala Ser Leu Ile Gln Met Asp Asp Ala Asp Trp Trp Thr Arg
35 40 45
Phe Phe Lys Asn Gly Ala Gln Ile Asn Thr Pro Met Asp Val Glu Ile
50 55 60
Ala Gln Ser Ile Asp Asn Asn Leu Glu Pro Trp Pro Asn Ala Trp Asp
65 70 75 80
Ser Leu Glu Ala Thr Ala Tyr Leu His Ala Glu Ala Leu Gln Thr Ile
85 90 95
Leu Pro Arg Tyr Thr Glu Ala Val Trp Asn Tyr Ala Val Arg Ile Leu
100 105 110
Pro Pro

<210> 37341
<211> 97
<212> PRT
<213> A.fumigatus

<400> 37341
Lys Ser Thr Val Pro Ser Trp Ser Ser Pro Arg Pro Phe Met Tyr Thr
1 5 10 15
Pro Leu His Gly Val Gly Gly Leu Ile Phe Pro Glu Leu Cys Arg Ser
20 25 30
Val Gly Ile Thr Asp Phe Ala Ala Val Thr Glu Gln Val Glu Pro Asn
35 40 45
Pro Asp Phe Pro Thr Val Ala Phe Pro Asn Pro Glu Glu Asn Gly Ser
50 55 60
Leu Asp Leu Ala Met Gln Ser Ala Asp Lys Glu Gly Lys Thr Leu Ile
65 70 75 80
Ile Ala Asn Asp Pro Asp Ala Asp Arg Phe Ala Ala Ala Glu Lys Val
85 90 95
Glu

<210> 37342
<211> 262
<212> PRT
<213> A.fumigatus

<400> 37342
Ser Ser Gly Ser Trp Phe Thr Phe Thr Gly Asn His Leu Gly Val Leu
1 5 10 15
Leu Ala Ser His Leu Phe Asp Ser Leu Glu Gly Arg His Asp Lys Ser
20 25 30
Arg Ile Ala Val Leu Asn Ser Ala Val Ser Thr Gly Met Leu Glu Lys
35 40 45
Met Ala Arg Ser Lys Gly Phe His Phe Glu Glu Thr Leu Thr Gly Phe
50 55 60
Lys Trp Met Gly Asn Ile Ala Arg Arg Leu Glu Glu Ser Gly Tyr His
65 70 75 80

```
Val Pro Phe Ala Phe Glu Glu Ala Leu Gly Tyr Met Phe Pro Asp Val
                85                  90                  95
Cys His Asp Lys Asp Gly Val Thr Ala Ala Met Val Phe Leu Ala Ala
            100                 105                 110
Glu Ala Arg Trp Arg Ser Gln Gly Leu Thr Pro Tyr Ser Lys Leu Gln
        115                 120                 125
Gln Leu Phe Lys Asp Phe Gly Tyr Phe Glu Thr Leu Asn Lys Tyr Ser
    130                 135                 140
Asp His Leu Ser Pro Glu Ile Thr Lys Ser Leu Phe Gly Ala Ile Arg
145                 150                 155                 160
Asn Gly Pro Tyr Arg Thr Gln Lys Ser Leu Gly Ser Phe Lys Ile Leu
                165                 170                 175
Arg Trp Arg Asp Met Thr Glu Gly Tyr Asp Ser Gly Thr Glu Asp Gln
            180                 185                 190
Lys Pro Ala Leu Pro Ile Asp Lys Ser Ser Gln Met Leu Thr Ile Trp
        195                 200                 205
Leu Asp Arg Asp Val Arg Phe Thr Ile Arg Gly Ser Gly Thr Glu Pro
    210                 215                 220
Lys Val Lys Gly Asn Ser His Asn Arg Asn Met Arg Lys Ala Leu Leu
225                 230                 235                 240
Ile His Phe Leu Ser Leu His Arg Lys Leu Gln Cys Phe Ser Cys Ala
                245                 250                 255
Gly Cys Gly Cys Cys Leu
            260
```

<210> 37343
<211> 197
<212> PRT
<213> A.fumigatus

<400> 37343

```
Cys Ile Glu Arg Leu Leu Ile Ser Lys Arg Arg Ile Pro Arg Arg Gly
1               5                  10                  15
Leu Lys Leu Ser Ser Tyr Arg Arg Leu Glu Arg Leu Gln Ser Ser Ser
            20                  25                  30
Cys Val Phe Gly Ser Val Arg Ile Phe Tyr Asn Thr Gly Ser Phe Val
        35                  40                  45
Ser Cys Thr Ser Arg Leu Ser Asn His Thr Ser Ala Gly Ile Gln Phe
    50                  55                  60
Gly Thr Ala Gly Leu Arg Gly Arg Met Ala Ala Gly Phe Ser Cys Met
65                  70                  75                  80
Asn Ser Leu Thr Val Ile Gln Ala Ser Gln Gly Leu Ala Lys Tyr Ile
                85                  90                  95
Arg Asp Lys His Ser Asp Ile Ala Pro Asn Gly Val Val Ile Gly His
            100                 105                 110
Asp Ala Arg His Asn Ser Ala Lys Phe Ala Ala Leu Ala Ala Asn Ala
        115                 120                 125
Phe Ile Ala Met Gly Ile Pro Val Trp Tyr Tyr Ser Lys Pro Thr Leu
    130                 135                 140
Thr Pro Ser Val Pro Phe Gly Val Thr His Val Arg Ala Ala Ala Gly
145                 150                 155                 160
Val Met Ile Thr Ala Ser His Val Cys Leu Leu Thr Ile Arg Ala Val
                165                 170                 175
Thr Arg Ala Lys Arg Ser Asp Thr Asp Asp Leu Val Asp Arg Thr Gln
            180                 185                 190
Pro Lys Thr Thr Val
```

195

<210> 37344
<211> 150
<212> PRT
<213> A.fumigatus

<400> 37344
Cys Pro Tyr Arg Gln Tyr Leu Leu Ile Trp Thr Leu Gly Tyr Arg Leu
1 5 10 15
Lys His Ala His Ala Leu Val Glu Gly Met His Gln His His Tyr His
20 25 30
Gln Gln Thr Thr Ser Thr Ser His Cys Asn Arg Lys Ala His Phe His
35 40 45
Ser Ser Glu Gly Cys Pro Arg Tyr Leu Thr Cys His Ser His Thr His
50 55 60
Val Gln Gln His Arg His His His His His His His Gln Gln Leu Thr
65 70 75 80
His Ser Thr His Tyr Asp Gly Ala Arg Glu Thr Ser Gln Ser Cys Thr
85 90 95
Cys Ser His Ser Tyr Gly Ser Glu Thr Arg Ala His Ser Gly Gly Tyr
100 105 110
Arg Gly Cys Arg Gly Leu Thr Gln Val Cys Leu Cys Arg Arg Pro Tyr
115 120 125
Gly Pro Pro Leu Pro Gly Gly Leu Met Cys Val Gly Arg Gly Arg Val
130 135 140
Gly Cys Val Cys Arg Arg
145 150

<210> 37345
<211> 116
<212> PRT
<213> A.fumigatus

<400> 37345
Ile Gln Pro His Ile Met Ala Ser Pro Ser Ser Thr Pro Pro His Ser
1 5 10 15
Asp Ala His Val Asn Gly Asn Val Leu Pro Thr Ala Ser Val Pro Lys
20 25 30
Leu Tyr Gly Ser Gly Asp Gly Ala Gln Ser Gly Ala Gly Thr Pro Ile
35 40 45
Gly Phe Gln Arg Tyr Pro His Asn Lys Ile Leu Asp Asn Val Ala Gly
50 55 60
Ser Asn Val Arg His Pro Ser Pro Gln Pro Thr His Leu Gly Ile Pro
65 70 75 80
Gly Ser Pro Leu His Arg Val Leu Ser Glu Glu Asp Pro Gly Tyr Ile
85 90 95
Ala Ala Lys Phe Glu Gly Lys Gln Lys Gln Met Glu Gln Gly Met Arg
100 105 110
Tyr Ser Leu Ala
115

<210> 37346
<211> 515
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (455),(476)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37346

```
Gly Arg Ser Arg Leu His Cys Cys Gln Val Arg Gly Gln Ala Glu Ala
1               5                  10                  15
Asp Gly Thr Arg Tyr Ala Leu Leu Ala Arg Leu Ser Ser Cys Ala Arg
            20                  25                  30
Ser Val Pro Leu Ile Arg Val Val Leu Pro Ile Val Met Asp Gln Leu
        35                  40                  45
Glu Glu Lys Gly Phe Phe Pro Ser Asp Phe Val Val Ser Glu Thr Thr
    50                  55                  60
Trp Phe Tyr Asn Met Leu Gly Ile Asp Asp Thr Tyr Phe Gln Thr Glu
65                  70                  75                  80
Thr Val Asp Ser Ile Val Thr Gln Ile Leu Ser Leu Tyr Ala Ala Lys
                85                  90                  95
Val Ala Ala Tyr Ala Arg Asp Asp Lys Lys Leu Glu Ile Arg Leu Asp
            100                 105                 110
Lys Glu Ala Glu Asp His Ala Val Tyr Ile Asp Thr Ser Lys Pro Gly
        115                 120                 125
Ile Ser Ser Val Asp Gly Pro Arg Tyr Glu Gln Arg Ile Asp Ala Lys
    130                 135                 140
Tyr Ile Asn Asn Ser Thr Pro Glu Asn Ser Tyr Arg Val Glu Thr Phe
145                 150                 155                 160
Arg Ser Pro Thr Pro Leu Pro Gly Asp Ser Glu Gln Gln Leu Arg Cys
                165                 170                 175
Tyr Phe Val Tyr Lys Cys Gln Phe Ala His Pro Asn Pro Ser Pro Thr
            180                 185                 190
Glu Thr Asp Ile Glu Ile Ile Gly Glu Lys Arg Phe Leu Gln Lys Ala
        195                 200                 205
Thr Ala Asn Thr Lys Ala Ile Tyr Gln Glu Ile Ile Ser Asn Ala Val
    210                 215                 220
Asn Arg Ala Gly Pro Val Ile Glu Met Phe Glu Ile Glu Gly Ser Arg
225                 230                 235                 240
Glu Lys Arg Leu Val Ile Ala Tyr Arg Gln Gly Ser Ala Met Gly Leu
                245                 250                 255
Phe Ser Ala Leu Ser Asp Leu Tyr His Tyr Tyr Arg Leu Thr Ser Ser
            260                 265                 270
Arg Lys Tyr Leu Glu Asn Phe Ser Asn Gly Ile Thr Val Ile Ser Leu
        275                 280                 285
Tyr Leu Arg Pro Leu Lys Asn Ala Glu Ile Ser Ala Lys Tyr Pro Pro
    290                 295                 300
Ile Glu Ala Ala Ile His Gln Ile Ile Lys Glu Thr Ser Leu Leu Tyr
305                 310                 315                 320
Cys Ile Pro Gln Asn Arg Phe Gln His His Phe Ala Val Gly Arg Leu
                325                 330                 335
Ser Leu Gln Glu Thr Ile Tyr Ala His Cys Ala Trp Val Phe Val Gln
            340                 345                 350
Gln Phe Leu Asn Arg Leu Gly Ser Glu Tyr Thr Ser Leu Ala Ala Val
        355                 360                 365
Leu Asp Ala Asn Asn Ser Val His Gln Glu Leu Leu Ser Lys Ile Lys
    370                 375                 380
Lys Arg Leu Arg Thr Glu Thr Phe Thr Ala Asp Tyr Ile Phe Glu Ile
```

385 390 395 400
Ile Asn Lys Tyr Pro Glu Leu Ile His Lys Leu Tyr Leu Asp Phe Ala
405 410 415
Asn Thr His Tyr Val Gln Thr Arg Ala Ser Glu Asp Asp Phe Leu Pro
420 425 430
Thr Leu Ser Tyr Leu Arg Leu Gln Val Asp Glu Val Leu Asp Ser Thr
435 440 445
Arg Leu Lys Gln Leu Ile Xaa Ser Thr Val Ala Asn Glu His Asp Glu
450 455 460
Met Val Met Ser Ala Phe Arg Val Phe Asn Asn Xaa Ile Leu Lys Thr
465 470 475 480
Gln Leu Phe His Ala Asp Glu Val Ala Phe Ser Phe Arg Leu Asn Ser
485 490 495
Glu Phe Leu Pro Arg His Glu Tyr Pro His Thr Ser Val Arg His Cys
500 505 510
Ser Trp Tyr
515

<210> 37347
<211> 196
<212> PRT
<213> A.fumigatus

<400> 37347
Val Leu Phe Gly Ile Pro Phe Leu Arg Asn Asn Pro Ala Gly Tyr Val
1 5 10 15
Ser Arg Ala Phe Glu Leu Thr Arg Gln Phe Met Phe Lys Trp Thr Val
20 25 30
Asn Trp Arg Phe Val Gly Glu Glu Leu Phe Leu Ser Arg Lys Phe Ser
35 40 45
Leu Ala Leu Leu Ala Leu His Leu Leu Leu Leu Gly Leu Phe Val Ala
50 55 60
Thr Val Trp Leu Glu Pro Ser Gly Ser Asn Leu Pro Ser Phe Leu Gln
65 70 75 80
Arg Leu Ile Gln Arg Arg Tyr Arg Thr Ala Ser Leu Ser Lys Ser Phe
85 90 95
Val Met Thr Ala Met Leu Ser Ser Leu Ala Ile Gly Leu Leu Cys Ala
100 105 110
Arg Ser Leu His Tyr Gln Phe Phe Ala Tyr Leu Ala Cys Ala Thr Pro
115 120 125
Phe Leu Leu Trp Gln Ala Gly Phe His Pro Ile Leu Val Tyr Val Val
130 135 140
Trp Ala Ala Gln Glu Trp Ala Trp Asn Ala Tyr Pro Ser Thr Asn Ala
145 150 155 160
Ser Ser Leu Val Val Val Leu Ser Leu Ala Ala Gln Val Phe Gly Val
165 170 175
Leu Gly Asn Ser Phe Ser Arg Lys His Leu Asp Gln Ser Ser Gln Lys
180 185 190
Glu His Met Arg
195

<210> 37348
<211> 231
<212> PRT
<213> A.fumigatus

<400> 37348
Ser Val Gly Thr Ile Pro Ser Tyr Leu Lys Leu Thr Ile Glu Pro Ser
1 5 10 15
Asn Ala Asp Thr Glu Ile Asp Trp Thr Thr Tyr Met Gln Gln Val Ser
20 25 30
Leu Tyr Ile Ser Gly Glu Arg Asp Tyr Thr Leu Ile Lys Gly Ser Thr
35 40 45
Gly Pro Leu Val Tyr Pro Ala Ala His Val Tyr Ile Tyr Asn Ile Leu
50 55 60
Tyr His Leu Thr Asp Glu Gly Arg Asp Ile Phe Leu Gly Gln Ile Leu
65 70 75 80
Phe Ala Ile Leu Tyr Leu Ala Thr Leu Thr Val Ala Met Thr Cys Tyr
85 90 95
Arg Gln Ala Gly Ala Pro Pro Tyr Leu Leu Val Pro Leu Val Leu Ser
100 105 110
Lys Arg Leu His Ser Val Phe Met Leu Arg Leu Phe Asn Asp Gly Ile
115 120 125
Ala Ala Phe Ala Met Trp Val Ser Ile Phe Leu Phe Met Asn Lys Lys
130 135 140
Leu Ala Ala Gly Val Ile Val Trp Ser Thr Gly Val Ala Ile Lys Met
145 150 155 160
Thr Leu Leu Leu Leu Ala Pro Ala Ile Ala Met Val Leu Val Leu Ser
165 170 175
Leu Ser Phe Gly Pro Ser Ile Arg Leu Gly Phe Leu Ala Val Leu Ile
180 185 190
Gln Val Met Gln Val Ser Phe Ala Arg Lys Lys Val Ala Asn Met Ala
195 200 205
Gly Arg Ser Tyr Leu Gly Tyr His Phe Cys Glu Thr Thr Arg Arg Asp
210 215 220
Met Phe Arg Glu Pro Leu Ser
225 230

<210> 37349
<211> 230
<212> PRT
<213> A.fumigatus

<400> 37349
Ser Arg Gln Val Ile Leu Lys Asn Phe Ala Cys His Glu Ser Pro Arg
1 5 10 15
Pro Ser Leu Thr Ser Val Ala Phe Ile Arg Ala Ile Ala Gln Leu Arg
20 25 30
Ala Cys Arg Leu Ile Pro Glu Ser Glu Val Arg Glu Leu Cys Tyr Lys
35 40 45
Ala Arg Glu Ile Leu Ile Glu Glu Gly Asn Val Val Ser Val Asp Ala
50 55 60
Pro Val Thr Ile Cys Gly Asp Ile His Gly Gln Phe His Asp Leu Met
65 70 75 80
Glu Leu Phe Arg Val Gly Gly Asp Val Pro Asp Thr Asn Tyr Leu Phe
85 90 95
Met Gly Asp Phe Val Asp Arg Gly Phe Tyr Ser Leu Glu Ser Phe Leu
100 105 110
Leu Leu Leu Cys Leu Lys Val Arg Tyr Pro Asp Arg Ile Thr Leu Ile
115 120 125
Arg Gly Asn His Glu Ser Arg Gln Ile Thr Thr Val Tyr Gly Phe Tyr
130 135 140

```
Asp Glu Cys Ile Arg Lys Tyr Gly Ser Ala Asn Val Trp Arg Tyr Cys
145                 150                 155                 160
Cys Glu Val Phe Asp Tyr Leu Ala Leu Gly Ala Leu Val Leu Gly Ala
                165                 170                 175
Ser Ser Glu Leu Gly Pro Thr Gly Ser Thr Phe Ser Asp Thr Thr Gln
            180                 185                 190
Ser Thr Met Pro Ile Asp Gly Pro Glu Leu Gly Asn Glu Val Leu Asn
        195                 200                 205
Ser Arg Gly Asp Val Pro Leu Ser Pro Tyr Arg Leu Gly Gly Arg Ser
    210                 215                 220
Ser Ser Glu Gly Val Asp
225                 230
```

<210> 37350
<211> 129
<212> PRT
<213> A.fumigatus

<400> 37350

```
Phe Ile His Asp Pro Leu Ile Asn Trp Arg Leu Asn Ile Arg Glu Ser
1               5                   10                  15
Pro Glu Arg Pro Pro Phe Ser Thr Glu Arg Arg Gln Ser Ile Thr Ser
            20                  25                  30
Val Met Asn Leu Glu His Gly Val Gln Pro Ser Asn Phe Ser Arg His
        35                  40                  45
Arg Arg Pro Ser Ile Leu Asp Gly Gly Ile Leu Asp Val Gln Glu Gly
    50                  55                  60
Ile Pro Pro Glu Ala Arg Glu Ala Gln Asn Ala Arg Ala Val Gln Val
65                  70                  75                  80
Leu Ala Arg Val Lys Glu Lys Leu Thr Gly Arg Asp Phe Lys Pro Thr
                85                  90                  95
Glu Glu Leu Asn Val Ser Asp Gln Val Asp Lys Leu Leu Ala Gln Ala
            100                 105                 110
Thr Ser Val Glu Asn Ile Cys Gln His Trp Ile Gly Trp Cys Ser Phe
        115                 120                 125
Trp
```

<210> 37351
<211> 83
<212> PRT
<213> A.fumigatus

<400> 37351

```
Met Ala Ser Asn Arg His His Tyr Ser Phe Glu Ser Leu Lys Leu Cys
1               5                   10                  15
Glu Leu Ile Val Leu Leu Arg Phe Ile Ser Thr Asp Cys Ser Met Ser
            20                  25                  30
Gly Thr Cys Met Ser Ile His Ser Gln Ala Glu Val Ala Ser Gly Gln
        35                  40                  45
Leu His Leu Arg Ser Gly Ala Ile Leu Gly Asn Ser Phe Arg Phe Val
    50                  55                  60
Leu His Pro Tyr Ile Ser Ser Val Ser Ser Leu Cys Ser Arg Phe Tyr
65                  70                  75                  80
Ser Lys Arg
```

<210> 37352
<211> 344
<212> PRT
<213> A.fumigatus

<400> 37352
Leu Tyr Arg Glu Thr Glu Glu Ile Gly Asp Leu Asn Gln Ala Trp Asp
1 5 10 15
Leu Tyr Tyr Thr Val Phe Arg Lys Ile Ser Arg Gln Leu Pro Gln Leu
20 25 30
Ser Thr Leu Asp Leu Lys Tyr Val Ser Pro Arg Leu Lys Asp Cys His
35 40 45
Asp Leu Ala Leu Ala Val Pro Gly Thr Tyr Gln Ser Gly Arg Pro Ile
50 55 60
Ile Arg Ile Ile Ser Phe Asp Pro Ile Leu His Val Leu Gln Thr Lys
65 70 75 80
Lys Arg Pro Arg Arg Met Thr Leu Lys Gly Ser Asn Gly Ser Ser Tyr
85 90 95
Met Tyr Ala Leu Lys Gly His Glu Asp Ile Arg Gln Asp Glu Arg Val
100 105 110
Met Gln Leu Phe Gly Leu Val Asn Thr Leu Leu Asp Asn Asp Gly Glu
115 120 125
Thr Phe Lys Arg His Leu Ser Val Gln Arg Phe Pro Ala Ile Pro Leu
130 135 140
Ser Gln Asn Ser Gly Leu Ile Gly Trp Val Cys Asn Ser Asp Thr Leu
145 150 155 160
His Ala Leu Ile Lys Glu Tyr Arg Glu Ser Arg Arg Ile Leu Leu Asn
165 170 175
Ile Glu His Arg Ile Met Leu Gln Met Ala Pro Asp Tyr Asp Asn Leu
180 185 190
Thr Leu Met Gln Lys Val Glu Val Phe Gly Tyr Ala Met Asp Asn Thr
195 200 205
Thr Gly Lys Asp Leu Tyr Arg Val Leu Trp Leu Lys Ser Lys Ser Ser
210 215 220
Glu Ala Trp Leu Glu Arg Lys Thr Asn Tyr Thr Arg Ser Leu Gly Val
225 230 235 240
Met Ser Met Val Gly Tyr Ile Leu Gly Leu Gly Asp Arg His Pro Ser
245 250 255
Asn Leu Leu Leu Glu Arg Ala Thr Gly Arg Val Val His Ile Asp Phe
260 265 270
Gly Asp Cys Phe Glu Val Ala Met His Arg Glu Lys Tyr Pro Glu Arg
275 280 285
Val Pro Phe Arg Leu Thr Arg Met Leu Thr Phe Ala Met Glu Val Ser
290 295 300
Asn Ile Glu Gly Ser Tyr Arg Ile Thr Cys Glu Ala Val Met Arg Val
305 310 315 320
Ile Arg Asp Asn Lys Asp Ser Leu Met Ala Val Leu Glu Ala Val Arg
325 330 335
Phe Val His Phe Ser Leu Ser Ile
340

<210> 37353
<211> 96
<212> PRT
<213> A.fumigatus

<400> 37353
Thr Met Thr Pro Ala Asp Ala Asp Ala His Pro Leu Val Arg Asn Ala
1 5 10 15
Leu Arg Ile Thr Leu Ser Ala Lys Glu Tyr Lys Leu Leu His Glu Tyr
20 25 30
Ile Ile Gln Arg Thr Pro Pro Ser Ile Lys Asp Lys Ala Pro Ser Pro
35 40 45
Ser Arg Tyr Glu Ala Ile Val Arg Ser Lys Asn Lys His Asn Glu Ala
50 55 60
Ala Leu Arg Ala Ser Leu Arg Val Ile Leu Val Ser Gly Gly Leu Leu
65 70 75 80
Lys Leu Val Glu Ala Ile Val Arg Arg Ile Gln Gly Asp Met Ser Lys
85 90 95

<210> 37354
<211> 635
<212> PRT
<213> A.fumigatus

<400> 37354
Leu Asn Pro Gly Arg Thr Val Leu Leu Ile Thr Arg His Gly Ile Ala
1 5 10 15
Asp Tyr Asp Pro Ile Asp His Leu Asn Ala Ile Phe Ser His Pro Ser
20 25 30
Thr Leu Ser Ser Val Ser Glu Val Ser Gln Ala Leu Arg Glu Tyr Glu
35 40 45
Asp Glu Leu Asp His Asp Ile Ala Thr Leu Val Glu Glu Gln Val Thr
50 55 60
Ser Asn Ala Glu Ser Val Glu Arg Ile Gln Ala Ala Lys Ala Asp Leu
65 70 75 80
Thr Glu Leu Phe Lys Lys Ile Asp Glu Val Arg Asp Arg Ala Ser Lys
85 90 95
Thr Glu Gln Ala Ile Thr Glu Met Thr Ala Asp Ile Lys Gln Leu Asp
100 105 110
Asn Ala Lys Lys Asn Leu Thr Gln Ser Met Thr Ala Leu Lys Arg Leu
115 120 125
Gln Met Leu Thr Thr Ala Tyr Asp Gln Leu Arg Ala Leu Ser Lys Thr
130 135 140
Arg Gln Tyr Arg Asp Cys Ala Gln Leu Leu Gln Ala Val Ile Gln Leu
145 150 155 160
Met Ala His Phe Lys Ser Tyr Arg Ser Ile Asp Gln Ile Ala Leu Leu
165 170 175
Ser Arg Asn Val Ala Asp Ile Gln Arg Glu Leu Leu Glu Gln Val Cys
180 185 190
Glu Asp Phe Glu Leu Ala Phe Ala Lys Gly Glu Val Ala Gln Asn Arg
195 200 205
Ile Thr Leu Ser Glu Gly Cys Gln Val Ile Asp Ala Leu Gly Glu Ser
210 215 220
Ala Arg Ser Arg Leu Val Thr Trp Tyr Cys Asn Phe Gln Leu Arg Glu
225 230 235 240
Tyr Arg Gln Val Phe Arg Asn Asn Glu Glu Ala Gly Ser Leu Asp Asn
245 250 255
Ile Ser Arg Arg Tyr Ser Trp Phe Arg Arg Ile Leu Lys Ile Tyr Asp
260 265 270
Glu Glu Tyr Ala Ala Ile Phe Pro Ala Ser Trp Arg Val Asn Glu Ile

```
        275                 280                 285
Leu Ala Asn Val Phe Cys Glu Gly Thr Arg Asp Asp Phe Lys Gly Ile
    290                 295                 300
Leu Ser Arg Ser Val Arg Asn Gly Gln Thr Ile Asp Val Asn Leu Leu
305                 310                 315                 320
Leu Ser Cys Leu Gln Glu Thr Leu Asp Phe Glu His Ser Leu Glu Arg
                325                 330                 335
Arg Phe Ala Ser Pro Ala Arg Pro Ser Thr Asp Thr Phe Ala Ser Thr
            340                 345                 350
Glu Thr Pro Val Phe Gly Gln Ala Ile Ser Glu Ala Phe Glu Pro Tyr
        355                 360                 365
Leu Ser Val Trp Val Glu Ala Gln Asp Lys Gln Leu Ala Ala Leu Ile
    370                 375                 380
Pro Lys Tyr Arg Gln Gln Pro Ile Arg Pro Pro Asp Glu Glu Phe Asp
385                 390                 395                 400
Cys His Ile Val Ile Ser Ser Ser Thr Glu Leu Phe Thr Phe Tyr Arg
                405                 410                 415
His Ser Arg Gln Gln Cys Ala Lys Leu Ser Thr Gly Gly Ser Leu Ala
            420                 425                 430
Asp Leu Ala Lys Val Phe Ala Lys Tyr Leu Asp Gln Tyr Ala Gln Gln
        435                 440                 445
Val Phe Leu Asn Tyr Ile Ser Glu Arg Arg Thr Gly His Thr Pro Ser
    450                 455                 460
Asn Val Pro Ser Leu Glu Asp Leu Ile Leu Val Leu Asn Thr Ala Asp
465                 470                 475                 480
Tyr Cys Tyr Thr Thr Cys Asn Gln Leu Glu Glu Lys Ile Lys Gly Arg
                485                 490                 495
Leu Asp Lys Asn Leu Lys Gln Ser Val Asp Leu Gln Ser Gln Ala Asp
            500                 505                 510
Ser Phe Met Gly Ile Ala Ser Ala Ala Ile Arg Gly Leu Val Arg Lys
        515                 520                 525
Val Glu Ile Asn Leu Glu Pro Ser Trp Arg Glu Met Arg Asn Thr Pro
    530                 535                 540
Trp Ser Arg Leu Asp Ala Val Ser Asp His Ser Pro Tyr Val Gly Glu
545                 550                 555                 560
Leu Leu Ser Lys Thr Gln Ala Thr Phe Ser Glu Ile Leu Gln Phe Leu
                565                 570                 575
His Lys Gln Gln Tyr Ala Arg Ala Phe Ala Asp His Val Val Glu Leu
            580                 585                 590
Leu Ser Thr Gln Phe Ile Ser Asn Ile Ser Gln Cys Lys Pro Ile Thr
        595                 600                 605
Glu Thr Gly Ala Glu Gln Val Cys Ser Val Phe Leu Pro Arg Gln Ile
    610                 615                 620
Ser Leu Tyr Ser Leu His Ala Arg Gly Trp Lys
625                 630                 635
```

<210> 37355
<211> 79
<212> PRT
<213> A.fumigatus

<400> 37355

```
Ser Leu Val Val Ser Leu Gly Pro Ile Asp Arg Trp Ser Leu Val Ala
1               5                   10                  15
Thr Ala Ala Cys Ala Leu Arg Leu Pro Pro Leu Arg Ala Asn Gly Met
            20                  25                  30
```

```
Ser Val Ser Thr Pro Thr Ser Ser Thr Gly His Val Pro Pro Asn Gly
        35                  40                  45
Ala Ala Asp Leu Asp Pro Leu Asp Ala Gly Glu His Thr Asn Leu Ile
    50                  55                  60
Glu Ser Arg Ser Asn Gly Leu Ala Asn Asn Ser Ala Trp Asn Ser
65                  70                  75
```

<210> 37356
<211> 143
<212> PRT
<213> A.fumigatus

<400> 37356

```
Thr Asn Trp Ile Ala Ile Val Leu Cys Cys Pro Asp Thr Arg Asp Tyr
1               5                   10                  15
Leu Ile Asn Tyr Ala Arg Ser Leu Ile Tyr Thr Thr Ala Met Gly Phe
            20                  25                  30
Pro Phe Leu Ala Ser Ile Arg Ala Ala Tyr Glu Leu Leu Val Glu Gly
        35                  40                  45
Gln Thr Glu Pro His Gln Thr Lys Leu Gln Gln Leu Val Ala Tyr Phe
    50                  55                  60
Arg Asp Arg Leu Ala Glu Leu Asp Ala Gly Asp Ser Ala Ala Phe Gln
65                  70                  75                  80
Val Asp His Phe Pro Thr Ser Pro Ile Phe Ser Val Arg Ser Arg Phe
                85                  90                  95
Pro Arg Gln Leu Ala Ala Ala Cys Gln Gln Lys Gly Tyr Val Val Arg
            100                 105                 110
Ala Ile Met Gly Ala Thr Cys Pro Cys Gly Lys Glu Ala Gly Glu Gly
        115                 120                 125
Leu Pro Ser Cys Leu Glu His Glu Trp Arg Lys Met Met Gly Gly
    130                 135                 140
```

<210> 37357
<211> 275
<212> PRT
<213> A.fumigatus

<400> 37357

```
Ser Val Arg Met Asp Ser Ser Pro Pro Lys Ser Leu Arg Glu Ser Leu
1               5                   10                  15
Arg Gln Ala Leu Leu Arg Arg Glu Ala Lys Ser Ser Arg Arg Arg Leu
            20                  25                  30
Thr Val Leu Pro Gln Ser Ser Val Asp Phe Ser Ser Asn Asp Phe Leu
        35                  40                  45
Ser Leu Ser Thr Ser Pro Ala Phe Arg Gly Arg Phe Leu Asp Leu Leu
    50                  55                  60
His Arg Ala Pro Pro Leu Tyr Pro Phe Ala Ser Gly Gly Ser Arg Leu
65                  70                  75                  80
Leu Asp Gly Asn Ser Thr Tyr Ala Glu Glu Leu Glu Lys Phe Ile Ala
                85                  90                  95
Glu Phe His Ser Ala Pro Ser Gly Leu Leu Phe Asn Ser Gly Phe Asp
            100                 105                 110
Ala Asn Val Gly Val Phe Ser Cys Ile Pro Gln Pro Gly Asp Leu Ile
        115                 120                 125
Val Tyr Asp Glu Leu Ile His Ala Ser Ala Arg Glu Gly Met Arg Leu
    130                 135                 140
```

```
Ser Arg Ala Gly Lys Arg Val Pro Phe Ser His Ser Ser Pro Asp Ser
145                 150                 155                 160
Leu Asp Glu Val Leu Gln Ser His Ile Ala Ala Asp Pro Leu Ile Gln
                165                 170                 175
Arg Gly Ser Arg Ser Val Phe Ile Ala Ile Glu Ser Ile Tyr Ser Met
            180                 185                 190
Asp Gly Asp Ile Ala Pro Ile Gln Asp Phe Leu Arg Val Val Asp Arg
        195                 200                 205
Leu Leu Pro Gln Gly Asn Gly Tyr Phe Ile Val Asp Glu Ala His Ala
    210                 215                 220
Thr Gly Val Phe Gly Pro Arg Gly Ala Gly Val Val Gln Ser Leu Gly
225                 230                 235                 240
Val Glu Lys Arg Met Phe Ile Arg Val His Thr Phe Gly Lys Ala Leu
                245                 250                 255
Ala Ser His Gly Gly Lys Pro Glu Ser Ile Pro Ile Tyr Met Phe Glu
            260                 265                 270
Leu Thr Gly
        275
```

<210> 37358
<211> 130
<212> PRT
<213> A.fumigatus

```
<400> 37358
Ile Pro Arg Asp Asp Asp Ile Leu Gly Ser Val His Lys Thr Leu Ser
1               5                   10                  15
Glu Trp Ala Arg Thr Gly Val Thr Phe Ala Leu Val Glu Thr Ala Gly
            20                  25                  30
Gly Val His Ser Pro Gly Pro Asn Gly Ser Ser Gln Ala Asp Leu Tyr
        35                  40                  45
Arg Pro Leu Arg Leu Pro Val Val Leu Val Ala Asp Ser Arg Leu Gly
    50                  55                  60
Gly Ile Ser Ser Ser Ile Ser Ala Tyr Glu Ser Leu Leu Leu Arg Gly
65                  70                  75                  80
Tyr Asp Val Asn Ser Val Leu Leu Phe Arg Asp Asp Tyr Tyr Lys Asn
                85                  90                  95
His Glu Tyr Leu Gly Asn Tyr Phe Arg Asn Lys Ser Ile Pro Leu Val
            100                 105                 110
Pro Leu Pro Gln Pro Pro Lys Arg Pro Pro Ser Gln Asp Ala Ala Ser
        115                 120                 125
Leu Ala
    130
```

<210> 37359
<211> 284
<212> PRT
<213> A.fumigatus

```
<400> 37359
Thr Met Pro Leu Arg Ile Ser Arg Thr Cys Leu Ala Gln Ala Ala Ile
1               5                   10                  15
Asn Ser Pro Val Pro Phe Leu Tyr Gln Thr Arg Thr Leu Ala Ala Pro
            20                  25                  30
Leu Ser Tyr Ala Lys Trp Ser Ala Arg Asp Gly Arg Ser Phe Gln Ser
        35                  40                  45
```

```
Thr Ser Thr Thr Phe Thr Thr Pro Glu Ser Ser Leu His Arg Gly Glu
    50                  55                  60
Glu Ser Ala His Asp Gly Glu Ser Ser Glu Asn Ala Thr Pro Pro Leu
65                  70                  75                  80
Glu Ser Asp Ser Pro Ser Pro Ala Pro Ser Asn Asp Gly Arg Arg Ser
                85                  90                  95
Arg Arg Ser Tyr Leu Lys Lys Arg Gly Ala Ala Val Ser Gln Ser Arg
            100                 105                 110
Thr Pro Pro Ser Ser Gln Pro Pro Arg Arg Pro Leu Thr Met Thr Glu
        115                 120                 125
Ser Glu Lys Arg Ala Phe Gly Gly Leu Leu Glu Gln Met Gly Val Lys
    130                 135                 140
Glu Lys Glu Asp Leu Glu Ala Ala Thr Glu Ala Thr Asp Lys Pro Ala
145                 150                 155                 160
Leu Ser Lys Asp Glu Met His Lys Ile Ser Asn Ile Phe Asn Ser Val
                165                 170                 175
Leu Glu Asp Leu Arg Lys Lys Lys Glu Gly Ser Glu Val Ser Thr Glu
            180                 185                 190
Gly Ala Gly Lys Arg Lys Ser Arg Arg Gln Val Asp Glu Pro Ala Ser
        195                 200                 205
Thr Ser Lys Pro Gly Pro Gln Glu Gln Ala Val Asp Ser Asn Pro Pro
    210                 215                 220
Glu Ser Arg Ser Asp Val Pro Arg Ser Ala Glu Leu Ala Ile Gln Phe
225                 230                 235                 240
Thr Val Gln Arg Glu Ser Ala Lys Ile Glu Arg Ala Leu Arg Ala Ala
                245                 250                 255
Ile Asp Glu Gly Lys Gly Asp Thr Gly Ile Trp Glu Val Cys Lys Phe
            260                 265                 270
Ser Gln Gln Pro Gly Arg Thr Pro Ile Ala Leu Ala
        275                 280
```

<210> 37360
<211> 343
<212> PRT
<213> A.fumigatus

<400> 37360

```
Lys Val Arg Cys Leu Val Ser Leu Ser Cys Phe Phe Tyr Phe Cys Ser
1               5                   10                  15
Ser Pro Leu Ile Leu Ala Asp His Pro Arg Pro Arg Ala Gln Arg Thr
            20                  25                  30
Leu Thr Leu Ile Ala Lys Ala Leu Gln Gly Leu Ala Asn Met Thr Thr
        35                  40                  45
Phe Gly Asn Lys Glu Pro Trp Met Glu Pro Met Asn Lys Phe Leu Leu
    50                  55                  60
Gly Asn Arg Val Glu Phe Lys Gln Phe Val Asp Ser Ile Cys Ala Ile
65                  70                  75                  80
Pro Ala Asp Arg Pro Thr Pro Ile Val Thr Pro Ser Tyr Ala Thr Pro
                85                  90                  95
Ile Gln Ile Leu Asn Arg Leu Pro Pro Thr Ser Arg Glu Gly Phe Pro
            100                 105                 110
Ser Leu Pro Phe Leu Ile Asp His Ala Arg Ser Phe Ala Asn Leu Ile
        115                 120                 125
Arg Ile Trp Leu Glu Ala Ala Pro Gly Lys Leu Ala Glu Leu Glu Asp
    130                 135                 140
Ile Asp Pro Ala Val Lys Lys Phe His Glu Met Ala Leu Arg Leu His
```

145 150 155 160
Gln Arg Thr Lys Glu Cys Leu Ser Lys Ala Glu Gln Ala Glu Arg Pro
165 170 175
Asn Gly Thr Leu Glu Val Lys Trp Glu Glu Leu Val Asp Ser Met Glu
180 185 190
Arg Ser Ala Thr Phe Phe Glu Asp Ser Ser Lys Pro Thr Thr Pro Ala
195 200 205
Thr Glu Thr Val Ile Ala Thr Pro Ala Ser Val Pro Gly Ser His Arg
210 215 220
Asn Ser Ile Gly Tyr Phe Ala Ser Arg Pro Ser Leu Pro Arg Arg Ser
225 230 235 240
Thr Asp Tyr Gly Pro Asp Ala Glu Glu Glu Thr Pro Pro Ser Ser Ser
245 250 255
Ser Ala Thr Trp Asp Gln Ser Arg Val Pro Phe Ser Met Pro Arg Trp
260 265 270
Ser Asp Thr Arg Asp Ser Thr Gly Ser Ser Lys Asn Ser Ser Thr Tyr
275 280 285
Ser Leu Glu Tyr Ser Glu Pro Ser Lys Ala Arg Arg Ser Ser Met Thr
290 295 300
Lys Glu Thr Ser Ser Lys Tyr Arg Phe Phe Asp Phe Val Pro Ala Ser
305 310 315 320
Ser Arg Arg Lys Ala Lys Asp Arg Glu Ser Thr Gln Gln His Ser Arg
325 330 335
Glu Glu Leu Arg Asn Glu Phe
340

<210> 37361
<211> 233
<212> PRT
<213> A.fumigatus

<400> 37361
Arg Asp Ile Ser Gly Arg Val Ser Ser Val Arg Ser Ala Gly Ser Ala
1 5 10 15
Cys Asp Thr Asp Leu Ser Pro Leu His Tyr Ser Phe Asn Cys Gln Gly
20 25 30
Ala Arg Lys Thr Val Thr Ile Met Gly Ala Asp Asn Glu Leu Ser Glu
35 40 45
Phe Glu Lys Gln Arg Leu Ala Asn Ile Ala Glu Arg Asp Ala Leu Leu
50 55 60
Lys Lys Leu Ser Leu Asp Ala Gln Ser Ser Gly Leu Phe Pro Pro Lys
65 70 75 80
Ser Ala Arg Ser Ser Pro Gly Gly Gln Thr Lys Pro Lys Lys Lys Pro
85 90 95
Pro Pro Lys Lys Val Lys Lys Glu Asp Glu His Pro Val Pro Arg Arg
100 105 110
Met Ser Ser Arg Leu Arg Gly Leu Ala Ala Asp Ser Glu Val Ala Lys
115 120 125
Arg Lys Ala Asp Glu Gln Tyr Glu Ala Ala Gln Gln Ala Glu Arg Ala
130 135 140
Lys Arg Val Arg Lys Ser Asp Ala Phe Ser Phe Ser Glu Met Leu Val
145 150 155 160
Ser Gly Gln Lys Leu Ser Gly Asp Ser Leu Ile Gly Val Asp Val Val
165 170 175
Thr Lys Gly Val Ala Met Pro Tyr Gln Arg Thr Phe Gly Asp Glu Asp
180 185 190

```
Ile Lys Lys Thr Thr Asp Lys Glu Leu Lys Ala Leu Arg Glu Glu Met
        195                 200                 205
Ser Gly Leu Arg Leu Trp Glu Ala Trp Glu Pro Asn Arg Ala Leu Ala
    210                 215                 220
Phe Arg Met Asn Cys Asp Ser Gly Asp
225                 230
```

<210> 37362
<211> 280
<212> PRT
<213> A.fumigatus

<400> 37362

```
His Asp Arg Ile Thr Gly Ile Lys Leu Thr Pro Glu Arg Ile Tyr Thr
1               5                   10                  15
Met Thr Phe His Pro Ser Glu Ala Lys Pro Leu Ile Phe Ala Gly Asp
            20                  25                  30
Lys Met Gly Asn Leu Gly Val Leu Asp Ala Ser Gln Glu Lys Pro Thr
        35                  40                  45
Ser Ala Val Lys Gln Glu Asp Asp Glu Glu Asp Ala Glu Asp Asp Asp
    50                  55                  60
Pro Asp Pro Val Leu Thr Thr Leu Lys Pro His Thr Arg Thr Ile Ser
65                  70                  75                  80
Ser Leu His Ile His Pro Ser Lys Pro Thr His Leu Tyr Ser Ala Ser
                85                  90                  95
Tyr Asp Ser Ser Ile Arg Glu Leu Asp Leu Glu Lys Thr Thr Ser Val
            100                 105                 110
Glu Lys Tyr Ala Pro Glu Ser Thr Ser Asp Asp Ile Pro Ile Ser Gly
        115                 120                 125
Ile Asp Met Ala Pro Asp Asp Pro Asn Thr Leu Tyr Trp Thr Thr Leu
    130                 135                 140
Asp Gly Ala Phe Gly Arg Tyr Asp Thr Arg Ala Ser Arg Arg Ser Ala
145                 150                 155                 160
Val Ala Thr Trp Gln Leu Ser Glu Lys Lys Ile Gly Gly Phe Ser Leu
                165                 170                 175
Phe Pro Thr His Pro His Phe Phe Ala Thr Ala Ser Leu Asp Arg Thr
            180                 185                 190
Met Arg Leu Trp Asp Ile Arg Lys Leu Ser His Asp Asp Pro Val Pro
        195                 200                 205
Val Gly Glu His Val Ser Arg Leu Ser Val Ser His Ala Ala Phe Asn
    210                 215                 220
Ser Ala Gly Gln Ile Ala Thr Ser Ser Tyr Asp Asp Thr Leu Lys Ile
225                 230                 235                 240
Tyr Asp Phe Gly Ser Lys Gly Ile Ala Ala Trp Glu Pro Gly Tyr Thr
                245                 250                 255
Leu Ser Asp Ala Glu Met Lys Pro Asp Thr Ile Val Arg His Asn Cys
            260                 265                 270
Gln Thr Gly Arg Trp Val Thr Met
        275                 280
```

<210> 37363
<211> 741
<212> PRT
<213> A.fumigatus

<400> 37363

```
Leu Lys Ile Gly Ala Gly Ile Asp Ser Phe Phe Glu Tyr Ala Phe Lys
1               5                  10                  15
Ser Tyr Val Leu Leu Ser Ser Gly Gln His Pro Ser His Asp Pro Arg
            20                  25                  30
Ser Pro Trp Gln Val Leu Asp Gly His Phe Pro Pro Leu Ser Glu Tyr
        35                  40                  45
Glu His Ser Ala Glu Ala Phe Leu Arg Val Trp Glu Glu Ser His Ala
    50                  55                  60
Ala Ile Lys Arg His Leu Tyr Arg Gly Glu Gly Tyr Gln His Pro His
65                  70                  75                  80
Val Ile Gln Gly Asp Ile Phe Thr Gly Ala Thr Arg Ala Phe Trp Ile
                85                  90                  95
Asp Ser Leu Ser Ala Phe Tyr Pro Gly Leu Leu Ser Ile Ala Gly Glu
            100                 105                 110
Leu Asp Glu Ala Ile Ala Ile His Leu Leu Thr Thr Ala Val Trp Thr
        115                 120                 125
Arg Phe Ser Gly Leu Pro Glu Arg Trp Asn Val Ala Thr Gly Asn Ile
    130                 135                 140
Glu Gly Glu Leu Ala Trp Tyr Gly Gly Arg Pro Glu Phe Ile Glu Ser
145                 150                 155                 160
Thr Tyr Tyr Ile Tyr Arg Ala Thr Lys Asp Pro Trp Tyr Leu His Val
                165                 170                 175
Gly Glu Met Val Leu Arg Asp Leu Lys Arg Arg Cys Trp Thr Lys Cys
            180                 185                 190
Gly Trp Ala Gly Leu Gln Asp Val Arg Asn Gly Glu Leu Asn Asp Arg
        195                 200                 205
Met Glu Ser Phe Phe Leu Gly Glu Thr Ala Lys Tyr Leu Phe Leu Leu
    210                 215                 220
Tyr His Pro Asp His Pro Leu Asn Asp Met Asp Gln Pro Phe Val Phe
225                 230                 235                 240
Ser Thr Glu Gly His Pro Leu Ile Ile Pro Thr Ser Thr Ile Ser Ser
                245                 250                 255
Thr His Gln His Arg Lys Gln Val Gln His Gly Glu Leu Val Asn Leu
            260                 265                 270
Pro Val Cys Gln Leu Ala Pro Glu Pro Pro Thr Phe Gly Pro Ser Ser
        275                 280                 285
Thr Ala Ala Arg Pro Asp Val Phe His Ala Ala Thr Leu Ala Arg Leu
    290                 295                 300
His Leu Met Pro Ser Arg Gly Pro Thr Glu Gly Pro Ile Phe Glu Tyr
305                 310                 315                 320
Ala His Asp His Pro Ser Val Thr Val Ser Asp Leu Ser Ser Pro Thr
                325                 330                 335
Asn Tyr Thr Tyr Tyr Pro Trp Thr Leu Pro Pro Glu Leu Val Pro Phe
            340                 345                 350
Asn Ala Thr Ser Ser Pro Met Thr Ser Arg Pro Thr Leu Asp Ile Ser
        355                 360                 365
Phe Pro Ala Ile Pro Gly Met Val Ile Gly Pro Gly Ser Ile Glu Arg
    370                 375                 380
Val Arg Asp Gly Ile Phe Ile Lys Asn Ile Gly Gly Leu Arg Leu Ser
385                 390                 395                 400
Met Val Gln Asp Val Pro Ser Val Asp Ala Thr Gly Lys Ala Ser Gln
                405                 410                 415
Asp Asp Phe Arg Val Gln Val Ile Asn Asn Val Pro Leu Gly Lys Asp
            420                 425                 430
Glu Lys Val Tyr Leu Ser Arg Glu Ile Thr Phe Asp Ile Leu Asp Pro
        435                 440                 445
```

```
Thr Asp Pro Asn Phe Thr Arg Met Ser Asp Ser Ala Met Ile Asp Ile
    450                 455                 460
Val Ile Asp Val Thr Pro Glu Leu Leu Arg Arg Gly Asn Asp Ser Ile
465                 470                 475                 480
Ala Ser Arg Glu Arg Gly Ala Ala Ala Ala Glu His Ser Glu Asn His
                485                 490                 495
Val Ile Gln Glu Asn Ala Ser Val Asp Asp Lys Ile Gly Ser Val Asp
            500                 505                 510
Pro Ser Thr Ser Gly Met Lys Asn Val Phe Ser Ser Leu Met Asp Thr
        515                 520                 525
Val Ser Ala Leu Leu Arg Asp Glu Asp Pro Gly Leu Thr Thr Gln Ser
    530                 535                 540
Pro Ser Arg Lys Ser Ser Ile Leu Arg Leu Ser Leu Pro Ala Ala Val
545                 550                 555                 560
Ser Ser Gly Ala Gly Ser Ala Pro Leu Pro Glu Val Glu Asp Ala Ser
                565                 570                 575
Ile Val Ser Ile Ser Gly Gln Pro Leu Arg Ser Arg Leu Ser Trp Ser
            580                 585                 590
Thr Ile Tyr Phe Ala Asp Glu Ile Cys Asp His Arg Ile Leu Arg Glu
        595                 600                 605
Ile Ala Gln Ser His Gln Val Leu Val Ile Lys Arg Gly Gly Cys Ser
    610                 615                 620
Phe Ser Gln Lys Leu Arg Asn Ile Ala Ala Tyr Pro Pro Ser Arg His
625                 630                 635                 640
Ala Leu Lys Leu Val Ile Val Val Asp Tyr Asp Glu Lys Thr Phe Ala
                645                 650                 655
Glu Ala Ser Thr Ser Thr Pro Pro His Ser Ala Gly Leu Ala Ala Ile
            660                 665                 670
Arg Ala Glu Pro Phe Leu Ile Arg Pro Leu Leu Asp Glu Pro Gln Met
        675                 680                 685
Thr Ala Gly Gly Leu Pro Arg Arg His Pro Ile Ser Met Val Met Val
    690                 695                 700
Gly Gly Gly Glu Glu Thr Tyr Gly Leu Leu Arg Arg Ala Thr Gly Val
705                 710                 715                 720
Gly Ile Lys Arg Arg Tyr Ser Ile Arg Ser Gln Gly Ile Pro Ile Asn
                725                 730                 735
Asn Leu Tyr Ile Val
            740
```

<210> 37364
<211> 415
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (12)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37364

```
Leu Val Ala Leu Val Cys Ala Ile Ala Val Leu Xaa Glu Pro Tyr Pro
1               5                   10                  15
Gly Thr Val Met Arg Ser Gly Ala Gln Ser Thr Pro Ser Leu His Gln
            20                  25                  30
Asp Asp Glu Ser Gly Ala Asp Asp Lys Leu Ser Leu Gln Phe Trp Asn
        35                  40                  45
```

```
Ile Ala Leu Lys Arg Leu Gly Tyr Ala Met Arg Glu Asn Ser Val Glu
    50                  55                  60
Ala Val Gln Ser Leu Val Leu Ala Gly Asn Trp Tyr Met His Arg Met
65                  70                  75                  80
Glu Pro Leu Glu Ala Trp Lys His Phe Asn Leu Ala Gly Ala Ala Trp
                85                  90                  95
Asn Thr Leu Arg Leu Thr Arg Phe Pro Leu Trp Asp Leu Lys His Asn
            100                 105                 110
Arg Asp Ser Thr Ser Asn Glu Leu Thr Ile Leu Gln Ala Leu Tyr Phe
        115                 120                 125
Thr Ile Trp Lys Ser Glu Cys Lys Leu Arg Leu Glu Leu Pro Val Pro
    130                 135                 140
Gly Pro Ser Leu Thr Asn Thr Thr Asp Phe Pro Leu Ala Phe Pro Gln
145                 150                 155                 160
Pro Pro Arg Leu Gly Ser Glu Pro Ser Thr Pro Asp Ala Ser Glu Ser
                165                 170                 175
Glu Arg Ser Trp Tyr Tyr Tyr Leu Thr Glu Ile Ala Ala Arg His Leu
            180                 185                 190
Leu Asn Arg Leu Val Gln Met Asn Ser Glu Cys Ala Asp Thr Leu Thr
        195                 200                 205
Glu Arg Gln Val Ser Leu Leu Ile Gly His Ala Glu Ile Leu Gln Ala
    210                 215                 220
Gln Ile Phe Asp Trp Tyr Thr Ser Leu Pro Ser Met Phe His Phe Thr
225                 230                 235                 240
Ile Pro Asp Gly Tyr Asp Ala Asp Phe Gln Ser Asp Pro Met Ile Phe
                245                 250                 255
Val Leu Gln His Arg Tyr Phe Thr Leu Arg Glu Leu Val Ala Arg Pro
            260                 265                 270
Phe Val Arg Leu Val Val Asp Gly Leu Leu Asp Gly Met Asp Pro Leu
        275                 280                 285
Leu Arg Ala Arg Ala Arg Ser Phe Ala Ser Glu Ser Ile Gln Phe Cys
    290                 295                 300
Met Leu Lys Leu Ser Gln Thr Val Ala Tyr Arg His Gln Gly Asn Trp
305                 310                 315                 320
Tyr Met Leu Arg Ser Ile Thr Thr Ala Ser Leu Ile Leu Ala Ser Val
                325                 330                 335
Tyr Leu Ala Gln Cys Arg Leu Arg Glu Arg Glu Ala Ala Gly Ala Thr
            340                 345                 350
Pro Thr Ser Glu Ser Leu Met Pro Pro Glu Ala Trp Ile Ser Arg Val
        355                 360                 365
Lys Asp Ala Val Glu Leu Ala Gln Pro Phe Phe Asp Glu Pro Ser Gly
    370                 375                 380
Gly Ala Ser Asn Met Lys Gln Ile Ile Leu Ala Ala Leu Glu Ala Ala
385                 390                 395                 400
Gln Gln Arg Ser Ala Trp Cys Gly Trp Arg Asn Tyr Gly Lys Glu
                405                 410                 415
```

<210> 37365
<211> 718
<212> PRT
<213> A.fumigatus

<400> 37365

```
Val Leu Thr Lys Met Asn Ser Ser Cys Ala Asp Ile Leu Leu Phe Ala
1               5                   10                  15
Thr Asn Lys Trp Asn Val Thr Arg Pro Ser Ile Leu Phe Asp Thr Lys
```

```
            20                  25                  30
Asp Val Tyr Glu Pro Thr Thr Thr Asn Lys Phe Trp Leu Asp Val Gln
        35                  40                  45
Leu Arg Tyr Gly Asp Tyr Asp Ser His Asp Ile Glu Arg Tyr Val Arg
    50                  55                  60
Ala Lys Tyr Leu Asp Tyr Thr Thr Asp Ser Met Ser Ile Tyr Pro Ser
65                  70                  75                  80
Ala Thr Gly Leu Met Ile Gly Ile Asp Leu Ala Tyr Asn Leu Tyr Ser
                85                  90                  95
Ala Tyr Gly Gln Tyr Phe Pro Gly Leu Lys Thr Leu Ile Gln Gln Ala
            100                 105                 110
Met Ala Lys Ile Met Lys Ala Asn Pro Ala Leu Tyr Val Leu Arg Glu
        115                 120                 125
Arg Ile Arg Lys Gly Leu Gln Leu Tyr Ala Ser Glu Ser Asn Gln Glu
    130                 135                 140
Phe Leu Asn Ser Gln Asn Tyr Ser Glu Leu Phe Ser Pro Gln Ile Gln
145                 150                 155                 160
Leu Phe Ile Asp Asp Thr Asn Val Tyr Arg Val Thr Ile His Lys Thr
                165                 170                 175
Phe Glu Gly Asn Leu Thr Thr Lys Pro Ile Asn Gly Ala Ile Phe Ile
            180                 185                 190
Phe Asn Pro Arg Thr Gly Gln Leu Phe Leu Lys Ile Ile His Thr Ser
        195                 200                 205
Val Trp Ala Gly Gln Lys Arg Leu Gly Gln Leu Ala Lys Trp Lys Thr
    210                 215                 220
Ala Glu Glu Val Ala Ala Leu Ile Arg Ser Leu Pro Val Glu Glu Gln
225                 230                 235                 240
Pro Lys Gln Leu Ile Val Thr Arg Lys Gly Leu Leu Asp Pro Leu Glu
                245                 250                 255
Val His Leu Leu Asp Phe Pro Asn Ile Ser Ile Arg Ala Ser Glu Leu
            260                 265                 270
Gln Leu Pro Phe Gln Ala Ala Met Lys Val Glu Lys Leu Ala Asp Met
        275                 280                 285
Ile Leu Arg Ala Thr Glu Pro Gln Met Val Leu Phe Asn Leu Tyr Asp
    290                 295                 300
Glu Trp Leu Lys Ser Ile Ser Pro Tyr Thr Ala Phe Ser Arg Leu Ile
305                 310                 315                 320
Leu Ile Leu Arg Ala Leu His Val Asn Ile Asp Lys Ala Lys Ile Ile
                325                 330                 335
Leu Arg Pro Asp Lys Thr Val Ile Thr Gln Glu His His Ile Trp Pro
            340                 345                 350
Thr Leu Ser Asp Glu Asp Trp Ile Lys Val Glu Val Gln Leu Arg Asp
        355                 360                 365
Leu Ile Leu Asn Asp Tyr Gly Lys Lys Asn Asn Val Asn Val Gln Ser
    370                 375                 380
Leu Thr Ser Ser Glu Val Arg Asp Ile Ile Leu Gly Met Glu Ile Ser
385                 390                 395                 400
Ala Pro Ser Leu Gln Arg Gln Gln Ala Ala Glu Ile Glu Lys Gln Gln
                405                 410                 415
Glu Glu Ala Lys Gln Leu Thr Ala Val Thr Thr Lys Thr Gln Asn Val
            420                 425                 430
Arg Gly Glu Glu Ile Ile Val Thr Thr Thr Ser Gln Tyr Glu Gln Gln
        435                 440                 445
Ser Phe Ala Ser Lys Thr Glu Trp Arg Thr Arg Ala Ile Ala Thr Ser
    450                 455                 460
Asn Leu Arg Thr Arg Ala Asn Asn Ile Tyr Ile Ser Ser Asp Asp Val
```

```
465                 470                 475                 480
Ser Glu Glu Gly Tyr Thr Tyr Ile Met Pro Lys Asn Ile Leu Arg Arg
                485                 490                 495
Phe Ile Thr Ile Ala Asp Leu Arg Val Gln Val Ala Gly Tyr Leu Tyr
            500                 505                 510
Gly Ser Ser Pro Pro Asp Asn Asp Gln Val Lys Glu Ile Arg Thr Ile
        515                 520                 525
Val Met Ile Pro Gln Val Gly Asn Thr Arg Asp Val Gln Leu Pro Gln
    530                 535                 540
Gln Leu Pro Gln His Glu Tyr Leu Asn Gly Leu Glu Pro Leu Gly Ile
545                 550                 555                 560
Ile His Thr Ile Ser Gly Asn Glu Pro His Tyr Met Thr Ala Met Asp
                565                 570                 575
Val Thr Gln His Ala Arg Val Met Asn Ala His Pro Ser Trp Asp Lys
            580                 585                 590
Lys Thr Val Thr Met Thr Val Ser Phe Thr Pro Gly Ser Val Ser Leu
        595                 600                 605
Ala Ala Trp Gly Leu Thr Pro Gln Gly Tyr Lys Trp Gly Ala Glu Asn
    610                 615                 620
Lys Asp Thr Thr Ser Asp Gln Pro Gln Gly Phe Ser Thr Ser Met Gly
625                 630                 635                 640
Gln Lys Cys Gln Leu Leu Leu Ser Asp Lys Ile Arg Gly Tyr Phe Leu
                645                 650                 655
Val Pro Glu Asp Asn Val Trp Asn Tyr Ser Phe Met Gly Ser Ser Phe
            660                 665                 670
Ser Ser Val Glu Lys Arg Pro Val Tyr Val Lys Ile Asp Thr Pro Leu
        675                 680                 685
Arg Phe Tyr Asp Asp Gln His Arg Pro Leu His Phe Gln Asn Phe Ala
    690                 695                 700
Glu Leu Glu Asp Ile Trp Val Asp Arg Ser Asp Asn Phe Ala
705                 710                 715
```

<210> 37366
<211> 70
<212> PRT
<213> A.fumigatus

```
<400> 37366
Ala Ala Arg Glu Trp Leu Pro Leu Gln Ser Thr Ala Ile Asn Leu Ser
1               5                   10                  15
Gly Asn Pro Arg Tyr Ala Ser Lys His Thr Arg Gly Leu Gln Arg Thr
            20                  25                  30
Ser Gly Ser Thr Leu Ile Asp Ser Thr Trp Gly Ile Thr Asn Phe Trp
        35                  40                  45
Phe Asn Ile Lys Ser His Pro Leu Gly Leu Gly Trp Pro Ser Gln Cys
    50                  55                  60
Glu Asp Leu Ser Phe Lys
65                  70
```

<210> 37367
<211> 68
<212> PRT
<213> A.fumigatus

```
<400> 37367
Leu Thr His Thr His Asn Ser Glu Ser His Glu Lys Tyr Ser Pro Ala
```

```
1               5                   10                  15
Tyr Ser Gly Leu Lys Ile Ala Lys Ser Pro Pro Thr Gly Gly Asp Thr
            20                  25                  30
Leu Phe Ile Ser Thr Tyr Gly Leu Tyr Tyr Arg His Ser Glu Pro Phe
        35                  40                  45
Gln Lys Phe Ala Glu Pro Leu Thr Gly Glu Tyr Ser Ala Phe Asp Leu
    50                  55                  60
Lys His Gly Ala
65
```

<210> 37368
<211> 118
<212> PRT
<213> A.fumigatus

<400> 37368

```
Tyr Arg Gly Cys Ser Gly Glu Phe Arg Pro Ala Ile Asp Phe Ala Val
1               5                   10                  15
Ser Ser Val Gly Asn Tyr Ser Tyr Pro Thr Gln Leu Val Pro Gln Pro
            20                  25                  30
Phe Ile Ser Pro Ile Ser Met Arg Asp Ser Met Asn Asp Cys Asn Ala
        35                  40                  45
Leu Cys Arg Tyr Arg Gly Asn His Arg Arg Gly Ser Arg Pro Glu Ile
    50                  55                  60
Cys Arg Cys His Cys Thr Cys Asn Glu Ser Leu Ser Ala Ile Ile Tyr
65                  70                  75                  80
Gly Ile Leu Ser His Lys Leu Tyr Leu Tyr Pro Trp Leu Lys Arg Arg
                85                  90                  95
Ser Thr Thr Val Ser Cys Val Arg Leu Thr Pro Gln Asp Arg Ser Ser
            100                 105                 110
Ser Val Met Ser Cys Gly
        115
```

<210> 37369
<211> 160
<212> PRT
<213> A.fumigatus

<400> 37369

```
Thr Arg Gln Thr Ala Pro Phe Glu Ala Phe Trp Lys Ile Gly Lys Cys
1               5                   10                  15
Lys Ser Pro Gln Ser Cys Arg Leu Gln Thr Met Cys Val Tyr Tyr Thr
            20                  25                  30
Gly Ala Ser Cys Leu Val Gln Gly Phe Leu Gly Asn Ala Asp Arg Phe
        35                  40                  45
Phe Lys Asn Ala Val Met Asn Gln Leu Ala Tyr Asp Val Leu Gln Ala
    50                  55                  60
Val His Pro Glu Val Ser Val Phe Leu Arg Ala Asp Gly Ser Gln Val
65                  70                  75                  80
Ile Pro Thr Ala Trp Leu Ile Glu Arg Cys Gly Trp Lys Gly Arg Arg
                85                  90                  95
Ile Gly Arg Val Gly Val Tyr Asp Gln His Ala Leu Val Ile Val Tyr
            100                 105                 110
Tyr Gly Ser Val Asn Gly Phe Asp Val Leu Glu Phe Ala Ser Arg Ile
        115                 120                 125
Arg Glu Gly Val Met Gly Arg Phe Gly Ile Trp Leu Glu Phe Glu Val
```

```
    130                 135                 140
Arg Ile Val Thr Glu Val Pro Val Ile Lys Lys Ser Val Ser Ser Asp
145                 150                 155                 160

<210> 37370
<211> 75
<212> PRT
<213> A.fumigatus

<400> 37370
Pro Gly Val Lys Ile Gln Leu Val Gly Gln Asn Ala Val Asn Tyr Gly
1               5                   10                  15
Ala Glu Arg Leu Val Ala Ser Thr Val Ala Ala Thr Asp Leu Arg Ala
            20                  25                  30
Gly Ala Ser Pro Val Ile Ala Thr Ile Pro Ala Glu Gly Val Thr Ile
        35                  40                  45
Val His Gly Ile Ala His Gly Asp Arg Gly Tyr Glu Arg Leu Arg Asp
    50                  55                  60
Lys Leu Ser Arg Ile Gly Val Val Ser Asn Thr
65                  70                  75

<210> 37371
<211> 182
<212> PRT
<213> A.fumigatus

<400> 37371
Ala Tyr Gly Phe Leu Asp His Arg Asn Phe Cys Asp Asp Pro Tyr Phe
1               5                   10                  15
Lys Leu Lys Pro Tyr Ala Glu Ser Ala His His Thr Leu Pro Tyr Ser
            20                  25                  30
Thr Gly Lys Leu Gln Asp Ile Lys Ala Ile His Ala Ala Val Val His
        35                  40                  45
Tyr Asp Glu Ser Met Leu Val Ile His Ser His Ala Ala Asn Ser Pro
    50                  55                  60
Ala Leu Pro Ala Ala Ser Leu Asp Gln Pro Ser Cys Trp Asp His Leu
65                  70                  75                  80
Gly Ala Val Cys Ser Gln Lys Tyr Arg Asp Leu Trp Val Asn Ser Leu
                85                  90                  95
Gln Asn Val Val Arg Lys Leu Val His Asn Cys Val Leu Glu Glu Thr
            100                 105                 110
Val Arg Ile Ser Glu Lys Thr Leu Asp Gln Ala Thr Cys Ser Cys Val
        115                 120                 125
Val Asp Thr His Arg Leu Gln Pro Thr Gly Leu Trp Gly Leu Ala Leu
    130                 135                 140
Pro Asn Phe Pro Glu Cys Phe Glu Trp Ser Arg Leu Ser Cys Ser Ser
145                 150                 155                 160
Arg Trp Leu Pro Gly Leu Val Ser Ser Asn Val Thr Leu Ala Met Asn
                165                 170                 175
Thr Ser Val Glu Phe Ala
            180

<210> 37372
<211> 164
<212> PRT
<213> A.fumigatus
```

<400> 37372
Arg Cys Thr Cys Cys Ile Asp Gly Glu Asn Pro Met Leu Asp Ala Ile
1 5 10 15
Gln Ala Leu Gln Asn Glu Gly Thr Arg Gly Glu Val Ala Gln Ser Tyr
20 25 30
Arg Glu Gln Gly Asn Glu Ala Ala Arg Glu Lys Arg Trp Ile Asp Ala
35 40 45
Lys Glu Phe Tyr Thr Lys Ala Leu Ala Val Val Thr Thr Lys Ile Asp
50 55 60
Lys Trp Asp Lys Pro Glu Asn Pro Glu Glu Asp Glu Lys Leu Leu Arg
65 70 75 80
Gln Val Glu Glu Ala Ser Tyr Ile Asn Arg Ala Leu Cys Asn Leu Glu
85 90 95
Leu Ser Met Pro Leu Cys Tyr Gly His Thr Trp His Lys Leu Leu Ile
100 105 110
Arg Phe Arg Lys Leu Pro Phe Tyr His Pro Arg Leu Cys Leu Cys Pro
115 120 125
Gln Ala Gln Ser Lys Gln Tyr Gln Ser Leu Leu Pro Phe Arg Tyr Gly
130 135 140
Ala Leu Phe Pro Arg Gln Ala Ser Gly Gly Arg Gly Cys Arg Leu Ala
145 150 155 160
Gly Ser Arg Pro

<210> 37373
<211> 241
<212> PRT
<213> A.fumigatus

<400> 37373
Leu Gly Ser Glu Asn Tyr Arg Ser Thr Thr Leu Asp Cys Ala Ser Val
1 5 10 15
Leu Lys Leu Asn Pro Asn Asn Ile Lys Ala Tyr Tyr Arg Ser Ala Met
20 25 30
Ala Leu Tyr Ser Leu Asp Lys Leu Pro Glu Ala Glu Asp Ala Ala Ser
35 40 45
Arg Gly Leu Ala Leu Asp Pro Lys Asn Lys Ser Leu Gln Gln Val Ala
50 55 60
Ala Lys Ile Ala Asp Arg Lys Ala Thr Leu Glu Arg Ile Ala Ala Arg
65 70 75 80
Lys Lys Ala Glu Glu Glu Arg Ile Gln Lys Glu Lys Gln Leu Leu Ser
85 90 95
Thr Ala Leu Arg Ala Arg Gln Ile Arg Thr Arg Lys Thr Thr Gln Pro
100 105 110
Pro Glu Met Glu Asp Ala His Ile Arg Leu Thr Pro Asp Pro Leu Ser
115 120 125
Pro Glu Ser Thr Leu Glu Phe Pro Ala Val Leu Leu Tyr His Met Asp
130 135 140
Ala Gln Ser Asp Phe Ile Lys Thr Phe Ser Glu Ala Thr Ser Ile Gln
145 150 155 160
Asp His Leu Glu Tyr Ile Phe Pro Leu Pro Trp Asp Thr Lys Gln Glu
165 170 175
Tyr Thr Ile Asn Ser Val Asp Cys Phe Met Glu Thr Val Thr Gly Gly
180 185 190
Leu Ile Lys Ala Gly Lys Lys Leu Pro Leu Leu Gln Ile Leu Ser Gly

```
        195                 200                 205
Gly Lys Val Glu Val Val Asp Glu Leu Val Arg Ile Tyr Val Ile Pro
    210                 215                 220
Thr Ser Lys Ser Ala Lys Phe Ile Ala Glu Met Lys Ala Arg Lys Glu
225                 230                 235                 240
Gly
```

<210> 37374
<211> 98
<212> PRT
<213> A.fumigatus

<400> 37374

```
Met Ser Ile Ala Leu Arg Ser Cys Ser Arg Pro Pro Ser Gly Pro Ser
1               5                  10                  15
Arg Pro Arg Arg Ile Trp Ser His Leu Gly Pro Pro Thr Ala Ala Lys
            20                  25                  30
Ser Thr Ala Ser Asp Ser Arg Ala Ala Phe Phe Thr Ser Ser Val Thr
        35                  40                  45
Asp Phe Pro Cys Ala Ser Met Leu Gln Pro Pro Met Ser Ser Cys Arg
    50                  55                  60
Arg Leu Asn Phe Arg Cys Ser Phe Ser Lys Thr Phe Ser Thr Leu Thr
65                  70                  75                  80
Ala Ser Val Met Thr Ser Gly Pro Ile Pro Ser Pro Gly Arg Thr Arg
                85                  90                  95
Met Leu
```

<210> 37375
<211> 125
<212> PRT
<213> A.fumigatus

<400> 37375

```
Asp Phe Phe Phe Gly Thr Gly His Gln Thr Phe Val Tyr Thr Thr Asp
1               5                  10                  15
Ser Thr Met Gly Gln Ile Glu Glu Leu Pro Asp Asp Phe Asp Glu Arg
            20                  25                  30
Leu Ser Leu Asn Glu Gln Pro Pro Ala Thr Glu Val Pro Pro Ala Lys
        35                  40                  45
Ile Tyr Asn Asp Gly Pro Ser Pro Ala Val Glu Glu Thr Pro Phe Pro
    50                  55                  60
Ile Asn Glu Glu Arg Leu Lys Glu Leu Glu Asn Asp Pro Asn Ala Pro
65                  70                  75                  80
Lys Leu Pro Pro Thr Met Ala Ser Val Lys Ser His Thr Ser Glu Glu
                85                  90                  95
Leu Leu Ser Met Met Asn Lys Thr Pro Leu Phe Met Thr Asp Ile Asn
            100                 105                 110
Gln Ala Gly Asp Glu Ser Glu Pro Ile Phe Pro Ser Leu
        115                 120                 125
```

<210> 37376
<211> 204
<212> PRT
<213> A.fumigatus

<400> 37376
Pro Ile Pro Pro Gly Ser Asp Arg Gly Arg Arg Phe Arg Arg Gly Glu
1 5 10 15
Gly Glu Leu Arg Gly Ser Val Phe Arg Glu Glu Asp Arg Arg Arg Arg
20 25 30
Leu Trp Tyr Val Val Phe Asn Lys Gln Tyr Ala Phe Glu Thr Asp Cys
35 40 45
Val Ile Ser Ala Met Asp Glu Trp Gly Tyr Ser Glu Arg Glu Ile Gln
50 55 60
Arg Ile Thr Arg Leu Ser Ala Glu Ile Ala Leu Arg His Asn Pro Pro
65 70 75 80
Trp Pro Val Ile Ser Leu Asp Lys Ala Asn Val Leu Ala Ser Ser Arg
85 90 95
Leu Trp Arg Arg Val Val Glu Lys Thr Met Thr Thr Glu Tyr Pro Gln
100 105 110
Val Lys Leu Val His Gln Leu Ala Asp Ser Ala Ser Leu Ile Leu Ala
115 120 125
Thr Asn Pro Arg Ala Leu Asn Gly Val Ile Leu Ala Asp Asn Thr Phe
130 135 140
Gly Asp Met Ile Ser Asp Gln Ala Gly Ser Ile Val Gly Thr Leu Gly
145 150 155 160
Val Leu Pro Ser Ala Ser Leu Asp Gly Leu Pro Ser Glu Thr Arg Lys
165 170 175
Arg Thr Asn Gly Leu Tyr Glu Pro Thr His Gly Ser Ala Pro Thr Tyr
180 185 190
Val Ser Ser Phe Val Thr Arg Ile Ile Met Phe His
195 200

<210> 37377
<211> 79
<212> PRT
<213> A.fumigatus

<400> 37377
Ser Lys Leu Thr Ile Ile Cys Arg Ile Ala Gly Gln Asn Ile Ala Asn
1 5 10 15
Pro Val Ala Met Ile Leu Cys Val Ala Leu Met Phe Arg Tyr Ser Leu
20 25 30
Asp Met Glu Thr Glu Ala Gln Arg Ile Glu Lys Ala Val Gln Gly Val
35 40 45
Leu Asp Ala Gly Ile Arg Thr Pro Asp Leu Gly Gly Lys Ser Gly Thr
50 55 60
Asn Glu Val Gly Asp Ala Ile Val Ala Ala Leu Gln Gly Ser Ser
65 70 75

<210> 37378
<211> 312
<212> PRT
<213> A.fumigatus

<400> 37378
Asn Asn Val Val Gln Leu Ser Arg Ile Tyr Ser Asn Glu Leu His Arg
1 5 10 15
Thr Asn Pro Ala Val Ser Ser Thr Pro Gln His Arg Leu Glu Thr Asp
20 25 30

```
Arg Arg Tyr Arg Ser Tyr Asp Tyr Ala Tyr Ile Val Leu Cys Gln Gln
        35                  40                  45
Asp Ile Val Phe Pro Trp Ser His Gln Ala Leu Asn Gln Val Cys Gly
    50                  55                  60
Ile Ala Leu Asp Thr Asp His Leu Leu His Leu Ser His Ile Ile Gln
65                  70                  75                  80
Ser Lys Arg Met Val Thr Thr Tyr Asn Ile Leu Val Leu Pro Gly Asp
                85                  90                  95
Gly Ile Gly Pro Glu Val Met Thr Glu Ala Val Lys Val Leu Lys Val
            100                 105                 110
Phe Glu Asn Glu His Arg Lys Phe Asn Leu Arg Gln Glu Leu Ile Gly
        115                 120                 125
Gly Cys Ser Ile Asp Ala His Gly Lys Ser Val Thr Glu Glu Val Lys
    130                 135                 140
Lys Ala Ala Leu Glu Ser Asp Ala Val Leu Phe Ala Ala Val Gly Gly
145                 150                 155                 160
Pro Lys Trp Asp His Ile Arg Arg Gly Leu Asp Gly Pro Glu Gly Gly
                165                 170                 175
Leu Leu Gln Leu Arg Lys Ala Met Asp Ile Tyr Ala Asn Leu Arg Pro
            180                 185                 190
Cys Ser Ala Ser Ser Pro Ser Ala Ser Ile Ala Lys Glu Phe Ser Pro
        195                 200                 205
Phe Arg Gln Glu Val Ile Glu Gly Val Asp Phe Val Val Val Arg Glu
    210                 215                 220
Asn Cys Gly Gly Ala Tyr Phe Gly Lys Lys Ile Glu Glu Glu Asp Tyr
225                 230                 235                 240
Gly Thr Ser Phe Leu Thr Ser Ser Met Leu Ser Arg Leu Thr Val Leu
                245                 250                 255
Phe Gln Arg Trp Thr Asn Gly Ala Ile Ala Ser Ala Arg Ser Ser Ala
            260                 265                 270
Ser Pro Ala Ser Arg Arg Lys Leu Pro Ser Val Thr Thr Pro Pro Gly
        275                 280                 285
Pro Ser Ser Pro Trp Thr Lys Pro Met Cys Ser Pro Arg Arg Gly Ser
    290                 295                 300
Gly Gly Ala Ser Leu Lys Arg Pro
305                 310
```

<210> 37379
<211> 281
<212> PRT
<213> A.fumigatus

<400> 37379

```
Lys Tyr Leu Ser Leu Val Ile Cys Tyr Thr Ser Leu Phe Ser Val Ala
1               5                   10                  15
Val Asn Leu Val Ala Leu Gly Tyr Leu Tyr Pro Arg Asp Ile Ala Arg
            20                  25                  30
Ser Thr Pro Ser Asp Phe Thr Ile His Leu Gln Gly Ser Cys Leu Ser
        35                  40                  45
Phe Leu Ser Arg Asp Ser Gly Asp Pro Ser His Ala Thr Gln Val Thr
    50                  55                  60
Glu Glu Arg Arg Ala Gly Thr Ser Ser Asn Ala Leu Arg Ser Thr Thr
65                  70                  75                  80
Asn Ala Ile Ile Ser Ser Cys Arg Ser Thr Ser Leu Thr Arg Ala Thr
                85                  90                  95
Ser Arg Ala Ser Arg His Ala Asp Arg Arg Thr Pro Ala Thr Thr Thr
```

```
            100                 105                 110
Thr Gln Leu Ala Leu Ser Glu His Phe Asn Ala Pro Ile Arg Pro His
        115                 120                 125
Val Trp Tyr Ser Lys Arg Arg Thr Trp Ser Arg Ala Gln Leu Asp Gln
    130                 135                 140
Glu Arg Lys Glu Phe Phe Glu Thr Arg Val Thr Gly Arg Pro Glu Val
145                 150                 155                 160
Trp Ala Ala Leu Ala Ala Ala Ile Ser Phe Met His Val Asn Asp Leu
                165                 170                 175
Ala Thr Ala Gln Ser Ile Ile Asp Ala Ala Gly Val Thr Val Pro Thr
            180                 185                 190
Gly Asp Leu Cys Gln Gly Cys Tyr Asp Glu Gln Gly Ala Leu Tyr Arg
        195                 200                 205
Leu Pro Arg Cys Ile Val Ser Asp Pro Glu Asn Met Val Gln Glu Asp
    210                 215                 220
Ser Ala Ser Arg Cys Asp Asp Gly Tyr Asp Asp Phe Asp Thr Asp Asp
225                 230                 235                 240
Ser Lys Leu Ser Leu Asp Glu Ala Ser Gly Asp Glu Leu Ile Ala Gly
                245                 250                 255
Asp Ser Gly Asp Arg Arg Asp Glu Lys Gly Lys Ile Ser Glu Pro Glu
            260                 265                 270
Ser Ser Pro Trp Val Glu Ile Arg Val
        275                 280
```

<210> 37380
<211> 347
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (340),(342)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37380

```
Ile Trp Pro Asp Phe Ser Arg Tyr Phe Asn Thr Val Gly Ser Lys Glu
1               5                   10                  15
Gly Trp Thr Pro Ala Ala Phe Val Ser Ser Arg Gln Asn Arg Ala Lys
            20                  25                  30
Asp Ser Gln Gln Lys Phe Gln Gln Arg Pro Glu Asp Phe Met Asp Glu
        35                  40                  45
Glu Asp Ile Arg Glu Ala Glu Glu Ala Lys Lys Leu Gln Thr Ser Asp
    50                  55                  60
Asp Phe Ala Gly Phe Gly Phe Ala Ala Thr Gly Ala Thr Arg Arg Gly
65                  70                  75                  80
Gly Leu Met Asp Leu Leu Met Ala Gly Gly Glu Thr Met Gly Val Lys
                85                  90                  95
Leu Leu Lys Lys Met Gly Trp Arg Glu Gly Gln Gly Ile Gly Pro Lys
            100                 105                 110
Val Arg Arg Lys Ala Asn Leu Gly Asp Gly Pro Gly Pro Gly Glu Asn
        115                 120                 125
Glu Ala Asp Lys Thr Tyr Leu Phe Ala Pro Glu Asp Ser Pro Met Ile
    130                 135                 140
Ala Ile Val His Lys Ala Asp His Lys Gly Leu Gly Phe Glu Gly Glu
145                 150                 155                 160
Ser Arg Leu Asp Ser His Lys Pro Gly Ala Asp Glu Ser Asp Glu Asp
```

```
                165                 170                 175
Asp Phe Phe Gly Arg Arg Leu Thr Ser Gly Ser Arg Arg Lys Pro Ser
            180                 185                 190
Lys Thr Lys Glu Gln Pro Arg Arg Gly Ala Phe Gly Val Gly Val Leu
        195                 200                 205
Asn Asp Thr Gly Ser Asp Asp Asp Asp Pro Tyr Ser Ile Gly Pro Gln
    210                 215                 220
Ile Ser Tyr Asn Arg Val Ile Gly Gly Asp Lys Lys Lys Lys Lys Lys
225                 230                 235                 240
Lys Pro Thr Asp Glu Ser Lys Pro Ala Leu Val Ala Ala Asn Pro Leu
                245                 250                 255
Val Asn Thr Lys Pro Val Phe Ile Ser Lys Lys Thr Leu Thr Ala Lys
            260                 265                 270
Ser Ser Thr Gly Phe Arg Lys Cys His Asp Gly Arg Leu Pro Leu Asp
        275                 280                 285
Gly Phe Leu Leu Ala Asp Gly Ile Ser Ser Leu Ser Ile Ser Thr Gln
    290                 295                 300
Glu Lys Arg Tyr Ala Pro Pro Glu Val Pro Lys Asp Trp Ile Ser Ser
305                 310                 315                 320
Lys Ile Pro Leu Ser Leu Gln Glu Met Ser Ser Asn Tyr Val Phe Thr
                325                 330                 335
Ala Arg Gly Xaa Gln Xaa Phe Phe Phe Ser Thr
            340                 345
```

<210> 37381
<211> 64
<212> PRT
<213> A.fumigatus

<400> 37381

```
Tyr Arg Thr Ser Val Ser Gly Tyr Thr Asn Ser Arg Ser Gln Leu Arg
1               5                   10                  15
Val Thr Ala Ala Arg Pro Gly Thr Val Asn Phe Glu Leu Asp Ile Gln
            20                  25                  30
Lys Glu His Thr Val Ser Leu Arg Pro Val Thr Asp Ser Leu Ser His
        35                  40                  45
Phe Asn Asn Ile Ile Arg Ile Asp Ser Ala Ser Phe Met Glu Gly Gln
    50                  55                  60
```

<210> 37382
<211> 105
<212> PRT
<213> A.fumigatus

<400> 37382

```
Cys Gln Ala Val Gly Phe Asn Glu Ile Leu His Gly Tyr Ser Arg Leu
1               5                   10                  15
Leu Met Gln Trp Val Ile Leu Gly Leu Ile Ala Arg Ser Lys His Asn
            20                  25                  30
Phe Val Leu Val Gln Gln Leu Val Phe Pro Val Arg Gln Cys Ile Val
        35                  40                  45
Tyr Tyr Glu Val Leu Ile Thr His Gly Pro Asn Leu Gly Leu Ser His
    50                  55                  60
Phe Lys His Ile Leu Pro Glu Met Phe Asp Ser Leu His Arg Cys Thr
65                  70                  75                  80
Leu Asn Leu Val Val Gln Arg Ser Cys Gly Trp Glu His Phe Ala Arg
```

85 90 95
Gly Gln His Glu Phe Val Arg Ala Leu
100 105

<210> 37383
<211> 540
<212> PRT
<213> A.fumigatus

<400> 37383
Arg Leu Ile Glu Tyr Val Glu Asn Thr Ser Lys Ala Pro Ser Glu Thr
1 5 10 15
Ser Leu Lys Lys Arg Arg Arg Asp Pro Val Glu Lys Glu Gly Thr Ser
20 25 30
Ala Arg Val Ile Arg Val Ser Thr Tyr Lys Gln Pro Asn Pro Gly Pro
35 40 45
Tyr Pro Val Asp Ala Pro Lys Leu Asn Thr Ile Arg Phe Thr Pro Ala
50 55 60
Gln Val Glu Ala Ile Ala Ser Gly Thr Gln Pro Gly Leu Thr Val Ile
65 70 75 80
Val Gly Pro Pro Gly Thr Gly Lys Thr Asp Val Ala Thr Gln Ile Ile
85 90 95
Asn Asn Ile Tyr His Asp Phe Pro Lys Glu Arg Thr Leu Leu Ile Ala
100 105 110
His Ser Asn Gln Ala Leu Asn Gln Leu Phe Gln Lys Ile Val Ala Leu
115 120 125
Asp Ile Asp Glu Arg His Leu Leu Arg Leu Gly His Gly Glu Glu Glu
130 135 140
Leu Glu Thr Glu Thr Ser Tyr Ser Lys Tyr Gly Arg Val Glu Ser Phe
145 150 155 160
Leu Glu Asn Arg Asn Tyr Phe Leu Ala Glu Val Thr Arg Leu Ala Ala
165 170 175
Ser Ile Gly Ala Glu Gly Ala His Gly Asn Ser Cys Glu Thr Ala Gly
180 185 190
Tyr Phe Asn Thr Val Tyr Ile Gln Pro Ala Trp Ala Lys Phe Phe Asp
195 200 205
His Ala Arg Ala Glu Ser Thr Thr Thr Glu Asp Ile Ile Ala Ser Phe
210 215 220
Pro Phe His Ala Tyr Phe Ser Thr Ala Pro Gln Pro Val Phe Asp Pro
225 230 235 240
Ala Arg Phe Glu Arg Asp Ile Ala Gly Met Trp Arg Gln Gly Cys Gln
245 250 255
Arg His Ile Asp Lys Ile Phe Ser Glu Leu Glu Asp Ile Arg Pro Phe
260 265 270
Glu Ile Leu Arg Gln Ser Arg Asp Lys Ala Asn Tyr Leu Leu Val Lys
275 280 285
Glu Ala Arg Ile Ile Ala Met Thr Ser Thr His Ala Ala Met Arg Arg
290 295 300
Gln Glu Ile Ala Asp Leu Gly Phe His Tyr Asp Asn Val Val Met Glu
305 310 315 320
Glu Ala Ala Gln Ile Thr Glu Ile Glu Ser Phe Ile Pro Ser Ala Leu
325 330 335
Gln His Met Lys Asn Gly Glu Leu Pro Leu Lys Arg Val Val Leu Cys
340 345 350
Gly Asp His Leu Gln Asn Ser Pro Ile Ile Gln Asn Leu Ala Phe Arg
355 360 365

```
Gln Tyr Ala His Phe Glu Gln Ser Leu Phe Leu Arg Leu Val Arg Leu
    370                 375                 380
Gly Val Pro Val Ile Asn Leu Asp Gln Gln Gly Arg Ala Arg Pro Ser
385                 390                 395                 400
Leu Ala Glu Leu Phe Arg Trp Arg Tyr His Gln Leu Gly Asp Leu Pro
                405                 410                 415
Ile Val His Thr Ala Gln Glu Tyr Lys His Ala Asn Ala Gly Phe Gln
            420                 425                 430
Tyr Asp Tyr Gln Phe Ile Asn Val Pro Asp Tyr Gln Gly Ser Gly Glu
        435                 440                 445
Arg Glu Pro Thr Pro His Phe Ile Gln Asn Leu Gly Glu Ala Glu Tyr
    450                 455                 460
Ala Val Ala Ile Tyr Gln Tyr Met Arg Leu Leu Gly Tyr Pro Ala Ser
465                 470                 475                 480
Lys Ile Ser Ile Leu Ala Thr Tyr Ala Gly Gln Thr Ala Leu Ile Lys
                485                 490                 495
Asp Val Leu Ala His Arg Cys Ala Lys Asn Ala Leu Phe Gly Met Pro
            500                 505                 510
Lys Ile Val Thr Thr Val Asp Lys Tyr Gln Gly Glu Gln Asn Asp Cys
        515                 520                 525
Lys Leu Asn Cys Leu Glu Leu Arg Ile Met Leu Thr
    530                 535                 540
```

<210> 37384
<211> 151
<212> PRT
<213> A.fumigatus

<400> 37384

```
Pro Arg Leu Cys Ala Asp Val Ile Leu Ser Leu Thr Arg Thr Arg Thr
1               5                   10                  15
Val Gly Tyr Leu Arg Asp Val Arg Arg Leu Thr Val Ala Leu Ser Arg
            20                  25                  30
Ser Arg Leu Gly Leu Tyr Ile Leu Gly Arg Arg Glu Val Phe Glu Ser
        35                  40                  45
Cys Tyr Glu Leu Lys Pro Ala Phe Asp Leu Leu Leu Gln Arg Pro Asp
    50                  55                  60
Lys Leu Met Leu Thr Thr Gly Glu Met Phe Pro Thr Thr Arg Ser Leu
65                  70                  75                  80
Asp Asp Glu Val Gln Gly Thr Pro Met Glu Gly Val Glu His Leu Gly
                85                  90                  95
Gln Tyr Val Phe Glu Met Thr Gln Ala Lys Val Arg Ala Met Gly Asp
            100                 105                 110
Gln Asp Leu Ile Val Asp Asp Ala Leu Pro Asp Gly Glu Asn Glu Leu
        115                 120                 125
Leu Asp Glu Asp Glu Val Met Leu Gly Ala Gly Asp Glu Pro Glu Asp
    130                 135                 140
Asp Pro Leu His Glu Gln Thr
145                 150
```

<210> 37385
<211> 278
<212> PRT
<213> A.fumigatus

<400> 37385

```
Lys Ile Leu Thr Glu Ala Lys Val Phe Leu Ser Gly Asn Gly Arg Asn
1               5                  10                  15
Ser Leu Asn Asn Lys Arg Lys Asn Arg Leu Ala Gly Pro Leu Lys Leu
            20                  25                  30
Trp Lys Pro Arg Val Arg Met Ser Tyr Leu Ile Pro Thr Ser Leu Gln
        35                  40                  45
Gln His Gly Arg Val Phe Leu Ala Leu Val Thr Trp Gly Ser Gly Arg
    50                  55                  60
Thr Phe Pro Leu Arg Lys Leu Met Cys Leu Thr Arg Lys Phe Ala Thr
65                  70                  75                  80
Met Phe Leu Tyr Arg Gln Leu Arg Ile Leu Phe Ala Ala Ala Ala Val
                85                  90                  95
Ser Leu Asn Asp Asn Glu Leu Phe Thr Asp Trp Glu Phe Ser Phe Met
            100                 105                 110
Leu Lys Glu Lys Leu Thr Lys Glu Gly His Leu His Leu Ala Ala His
        115                 120                 125
Gln Ala Ala Val Glu Ile Cys Leu Met His Ala Leu Lys Lys Pro Leu
    130                 135                 140
Thr Lys Ile Cys Asp Val Val Glu His Glu Lys Pro Val Phe Lys Leu
145                 150                 155                 160
Ile Trp Lys Cys Lys Ile Val Pro Asn Ala Glu Ser Gln Trp Gly Gln
                165                 170                 175
Ser Leu Val Tyr Pro Asp Asp Glu Ser Lys Asp Val Leu Val His Ile
            180                 185                 190
Phe Glu Gln Ile Gly Gly Gly Ala Asp Thr Thr Ala Thr Pro Ala Glu
        195                 200                 205
Glu Glu Val Gln Glu Asp Val Glu Thr Glu Glu Gln Gly Ala Val Glu
    210                 215                 220
Asp Ser Ile Ser Gln Ala Pro Thr Pro Pro Phe Phe Gly Tyr Arg Ser
225                 230                 235                 240
Val Arg Asp Lys Gly Phe Leu Ser Leu Ser Leu Asn Asp Pro Glu Thr
                245                 250                 255
Lys Phe Ala Val Ser Cys Leu Ala Ser Leu Ile Asp Ile Leu Trp Glu
            260                 265                 270
Ile Leu Leu Met Leu Ser
        275
```

<210> 37386
<211> 91
<212> PRT
<213> A.fumigatus

<400> 37386

```
Phe Leu Lys Arg Leu Ser Gln Leu Ser Gly His Tyr Phe Pro Asp Pro
1               5                  10                  15
Val Met His Ser Ile Ser Thr Val Lys Gln Ala Val Glu Tyr Leu Glu
            20                  25                  30
Gly Val Val Asn Pro Lys Pro Thr Lys Leu Ala Asp Gln Leu Val Asn
        35                  40                  45
Asn Pro Glu Leu Gln His Leu Pro Asn Val Lys Leu Phe Thr Lys Arg
    50                  55                  60
Gln Thr Ala Leu His Lys Asp Glu Glu Leu Gly Arg Lys Lys Ile Ile
65                  70                  75                  80
Glu Ser Glu Leu Arg Ala Arg Gly Leu Ile Glu
                85                  90
```

<210> 37387
<211> 249
<212> PRT
<213> A.fumigatus

<400> 37387
Phe Leu Pro Ser Gly Val Leu Gly Pro Arg Gly Glu Asp Arg Tyr Gly
1 5 10 15
Ile Ser Arg Ala Asp Gln Asp Ala Phe Ala Ala Glu Ser His Lys Lys
20 25 30
Ala Ser Ala Ala Gln Asn Ala Gly Leu Phe Asp Thr Glu Ile Val Pro
35 40 45
Val Lys Thr Leu Ser Phe Asp Pro Glu Asn Pro Asp Ala Ala Pro Lys
50 55 60
Glu Ile Thr Val Thr Lys Asp Asp Gly Ile Arg His Asn Ile Ser Val
65 70 75 80
Glu Lys Met Ala Thr Leu Lys Pro Ala Phe Lys Ala Asp Gly Thr Ser
85 90 95
Thr Ala Gly Asn Ser Ser Gln Val Ser Asp Gly Ala Ala Ala Ala Leu
100 105 110
Leu Met Arg Arg Ser Thr Ala Thr Glu Leu Gly Leu Thr Ala Ser Ile
115 120 125
Gln Ala Arg Trp Val Ala Thr Ala Val Ala Gly Cys Ala Pro Asp Glu
130 135 140
Met Gly Val Gly Pro Ala Val Ala Ile Pro Lys Leu Leu Glu Leu Val
145 150 155 160
Gly Met Asp Val Ser Asp Val Gly Ile Trp Glu Ile Asn Glu Ala Phe
165 170 175
Ala Ser Gln Ala Leu Tyr Ser Val Arg Lys Leu Gly Ile Asp Glu Thr
180 185 190
Lys Val Asn Pro Lys Gly Gly Ala Ile Ala Ile Gly His Pro Leu Gly
195 200 205
Ala Thr Gly Ala Arg Gln Leu Ala Thr Leu Leu Pro Glu Leu Lys Arg
210 215 220
Thr Gly Gln Asp Val Gly Val Val Ser Met Cys Ile Gly Thr Gly Met
225 230 235 240
Gly Met Ala Gly Met Phe Val Arg Glu
245

<210> 37388
<211> 266
<212> PRT
<213> A.fumigatus

<400> 37388
Trp Arg Asn Ser Pro Ala Pro Val Ala Lys Phe Tyr Lys Asp Thr Thr
1 5 10 15
Thr Phe Ser Cys Ile Ser Asn Pro Ala Ile Gln Ile Pro Phe Ser Ala
20 25 30
Val Asn Asp Asp Tyr Cys Asp Cys Pro Asp Gly Ser Asp Glu Pro Gly
35 40 45
Thr Ser Ala Cys Ser Tyr Leu Ser Arg Asn Tyr Pro Leu Thr Ser Ala
50 55 60
Asp Arg Pro Gly Asn Ser Asp Leu Glu Leu Thr Leu Ala Leu Pro Gly
65 70 75 80
Phe Tyr Cys Lys Asn Lys Gly His Lys Pro Ser Phe Val Ser Phe Gln

```
                85                  90                  95
Arg Val Asn Asp Gly Ile Cys Asp Tyr Glu Phe Cys Cys Asp Gly Ser
            100                 105                 110
Asp Glu Trp Ala His Val Gly Gly Thr Lys Cys Glu Asp Lys Cys Lys
        115                 120                 125
Glu Ile Gly Lys Gln Trp Arg Lys Gln Glu Glu Lys Arg Ala Lys Ser
    130                 135                 140
Met Thr Ala Ala Leu Lys Lys Lys Lys Glu Leu Leu Val Asp Ser Gly
145                 150                 155                 160
Arg Gln Gln Lys Glu Val Glu Asp His Ile Arg Arg Phe Glu Val Glu
                165                 170                 175
Ile Gln Ala Leu Glu Met Lys Val Lys Asp Met Glu Ala Asp Tyr Glu
            180                 185                 190
Glu Val Lys Lys Arg Glu Glu Ser Lys Met Val Arg Gly Lys Lys Ala
        195                 200                 205
Gly Lys Val Asn Ile Leu Ala Ser Leu Ala Lys Gly Arg Val Glu Glu
    210                 215                 220
Leu Arg Asn Ala Leu Val Glu Val Arg Lys Glu Lys Asp Glu Ala Arg
225                 230                 235                 240
Ser Pro Leu Asn Lys Ser Arg Arg His Leu Val Gln Val Gln Asn Pro
                245                 250                 255
Ile Gln Pro Gln Phe Gln Arg Arg Arg Cys
            260                 265
```

<210> 37389
<211> 167
<212> PRT
<213> A.fumigatus

```
<400> 37389
Leu Val Arg Asp Thr Gln Cys Asn Glu Pro Tyr Ala Glu Asp Asn Val
1               5                   10                  15
Ile Pro Ile Leu Pro Pro Lys Glu Ser Glu Lys Gln Arg Leu Met Ala
            20                  25                  30
Arg Ala Gln Lys Leu Ala Glu Gln Gly Leu Thr His Ser Leu Lys Lys
        35                  40                  45
Ala Pro Gly Ser Lys Lys Arg Lys Lys His Ala Asn Gly Asp Ser Ala
    50                  55                  60
Glu Ile Glu Thr Thr Ala Glu Ala Glu Ser Lys Ser Ala Leu Ala Ser
65                  70                  75                  80
Tyr Ser Gln Lys Glu Arg Pro Ala Ala Ser Ser Arg Ser Asn Thr Ser
                85                  90                  95
Thr Pro Thr Pro Ser Ala Ser Asn Gly Ile Lys Asn Ala Ser Thr Ala
            100                 105                 110
Leu Leu Thr Ala Arg Val Leu Glu Glu Glu Asn Glu Lys Lys Arg Arg
        115                 120                 125
Arg Lys Met Met Gly Ala Asn Glu Asn Ile Ser Ser Leu Phe Thr Lys
    130                 135                 140
Ser Ser Gly Asp Ala Lys Ser Thr Asn Ser Asp Phe Met Thr Arg Gly
145                 150                 155                 160
Tyr Thr Met Pro Ser Lys Lys
                165
```

<210> 37390
<211> 171
<212> PRT

<213> A.fumigatus

<400> 37390

```
Asp Cys Pro Thr Lys Val Leu His Ser Ile Pro Thr Arg Arg Glu Leu
1               5                  10                  15
Val Arg Glu Ala Ala Lys Ala Pro Ser Thr Ala Gln Val Lys Glu Ala
            20                  25                  30
Gln Arg Glu Met Gln Glu His Phe Trp Thr Thr Cys Pro Leu Ser His
        35                  40                  45
Lys Pro Leu Ala Arg Pro Ile Val Ser Asp Cys Val Gly Asn Leu Tyr
    50                  55                  60
Asn Lys Asp Ala Ile Leu Glu Phe Leu Leu Pro Gly Asp Asp Ala Gln
65                  70                  75                  80
Gly Ile Ser Ser Lys Ala Asp Cys Glu Glu Ile Leu Cys Gly Arg Val
                85                  90                  95
Lys Gly Leu Arg Asp Val Val Glu Leu Lys Phe Glu Val Asp Thr Glu
            100                 105                 110
Arg Gly Glu His Ala Ser Asn Lys His Asn Lys Arg Glu Ala Trp Ile
        115                 120                 125
Cys Pro Val Thr Ala Lys Pro Leu Gly Pro Ser Val Lys Ser Val Tyr
    130                 135                 140
Leu Val Pro Cys Gly His Val Phe Ser Glu Glu Ala Ile Arg Gln Leu
145                 150                 155                 160
Arg Asp Asp Lys Cys Leu Gln Val Cys Leu Leu
                165                 170
```

<210> 37391
<211> 781
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (552)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37391

```
Asn Asn Leu Gly Pro Ser Arg Leu Phe Ile Ser Ala Gly Gly Ala Asp
1               5                  10                  15
Asn Val Thr Ile Ser Gly Pro Pro Ser Lys Leu Arg Gln Val Phe Arg
            20                  25                  30
Val Ser Glu Lys Leu Arg Ser Ala Arg Tyr Ala Gln Leu Pro Val Tyr
        35                  40                  45
Gly Gly Leu Cys His Ala Pro His Leu Tyr Asn Cys His His Trp Thr
    50                  55                  60
Trp Ile Met Glu Pro Ile Asn Gly Ala Ala Phe Asn Gln Asn Met Val
65                  70                  75                  80
Asp Thr Ala Pro Leu Phe Ser Ala Gly Asp Asp Val Pro Phe Glu Ala
                85                  90                  95
Ser Thr Pro Arg Gln Leu Phe Glu Ser Val Val Cys Asp Leu Leu Met
            100                 105                 110
Gly Met Ile Arg Trp Asn Arg Ala Val Asp Gly Val Val Glu Leu Leu
        115                 120                 125
Gly Gln Thr Leu Pro Ser Glu Cys His Val Tyr Ala Phe Arg Pro Cys
    130                 135                 140
Ala Val Val Thr Gly Met Val Ala Ser Gly Gln Val Lys Leu Pro His
```

```
145                 150                 155                 160
Cys Gln Phe Gln Thr His Asp Leu Leu Gly Trp Thr Cys His Asp Asp
                165                 170                 175
Thr Asp Asn Gly Pro Thr Cys Arg Glu Asp Ser Ser Ile Ala Ile Val
            180                 185                 190
Gly Met Ala Cys Arg Phe Pro Gly Gly Ala Asn Asp Leu Asn Gln Phe
        195                 200                 205
Trp Asp Leu Leu Glu Gln Gly Ala Asp Val His Arg Arg Val Pro Ala
    210                 215                 220
Asp Arg Tyr Asp Val Glu Ser His Thr Asp Thr Ser Gly Lys Ser Arg
225                 230                 235                 240
Asn Thr Ser Leu Thr Pro Phe Gly Cys Phe Ile Asp Gln Pro Gly Leu
                245                 250                 255
Phe Asp Ala Gly Phe Phe Asp Met Ser Pro Arg Glu Ala Met Gln Thr
            260                 265                 270
Asp Pro Met His Arg Leu Ala Leu Met Thr Ala Tyr Glu Ala Leu Glu
        275                 280                 285
Gln Ala Gly Phe Val Pro Asn Arg Thr Glu Ser Thr His Leu Lys Arg
    290                 295                 300
Ile Gly Thr Phe Tyr Gly Gln Ser Cys Asp Asp Tyr Arg Glu Ala Asn
305                 310                 315                 320
Ala Gly Gln Glu Val Asp Thr Tyr Tyr Ile Pro Gly Gly Cys Arg Ala
                325                 330                 335
Phe Ala Pro Gly Arg Ile Asn Tyr Phe Phe Lys Phe Ser Gly Pro Ser
            340                 345                 350
Phe Asp Cys Asp Thr Ala Cys Ser Ser Ser Leu Ala Thr Ile Gln Met
        355                 360                 365
Ala Cys Thr Ser Leu Gln His Gly Asp Thr Asn Met Ala Val Ala Gly
    370                 375                 380
Gly Leu Asn Ile Leu Thr Asn Ser Asp Gly Phe Ala Gly Leu Ser Arg
385                 390                 395                 400
Gly His Phe Leu Ser Lys Thr Gly Gly Cys Lys Thr Phe Asp Cys Asn
                405                 410                 415
Ala Asp Gly Tyr Cys Arg Ala Asp Gly Ile Gly Ser Ile Val Leu Lys
            420                 425                 430
Arg Leu Asp Asp Ala Gln Arg Asp Asn Asp His Ile Phe Gly Ile Ile
        435                 440                 445
Leu Ala Ala Ala Thr Asn His Ser Ala Arg Ala Ile Ser Ile Thr His
    450                 455                 460
Pro His Ala Pro Ser Gln Ala Glu Leu Tyr Arg Asp Ile Leu Thr Arg
465                 470                 475                 480
Ala Gly Val Ser Pro Leu Asp Val Asp Phe Ile Glu Met His Gly Thr
                485                 490                 495
Gly Thr Gln Ala Gly Asp Ser Thr Glu Met Glu Ser Ile Thr Ser Val
            500                 505                 510
Phe Ser Pro Gly Val Pro Lys Arg Ser Arg Pro Leu Tyr Ile Gly Ser
        515                 520                 525
Val Lys Ala Asn Val Gly His Gly Glu Ala Ala Ala Gly Val Met Ser
    530                 535                 540
Leu Ile Lys Val Leu Leu Val Xaa Gln Arg Gln Ala Ile Pro Lys His
545                 550                 555                 560
Val Gly Ile Lys Thr Ala Leu Asn Pro Arg Phe Pro Asn Leu Asp Arg
                565                 570                 575
Leu Asn Val Arg Ile Pro His Asp Gln Val Pro Trp Pro Arg Ser Pro
            580                 585                 590
Thr Arg Lys Arg Tyr Ala Leu Val Asn Asn Phe Ser Ala Ala Gly Gly
```

595 600 605
Asn Thr Ser Leu Leu Ile Glu Glu Pro Pro Val Arg Pro Glu Pro Lys
610 615 620
Ala Asp Pro Arg Ala Ala Phe Thr Val Ala Val Ser Ala Lys Ser Lys
625 630 635 640
Ala Ser Leu Lys Asn Asn Leu Arg Ser Phe Leu Ala Tyr Leu Glu Ser
645 650 655
Gln Pro Ser Ile Ser Leu Ala His Leu Ser Tyr Thr Thr Thr Ala Arg
660 665 670
Arg Met His His Asn His Arg Ile Ala Val His Gly Ser Thr Leu Ser
675 680 685
Ser Ile Met Gln Glu Leu Glu Pro Tyr Leu Pro Ala Val Asp Thr His
690 695 700
Arg Pro Val Pro Asn Thr Pro Pro Ser Ile Ala Phe Val Phe Ser Gly
705 710 715 720
Gln Gly Asn Phe Tyr Thr Gly Ile Ala Arg Gln Leu Tyr Glu His His
725 730 735
Pro Gly Phe Arg Leu Gln Ile Thr Arg Leu His Asn Ile Cys Leu Ser
740 745 750
His Gly Phe Pro Ser Phe Arg Arg Ala Ile Thr Gly Asp Leu Ser Asn
755 760 765
Asp Gly Ser Glu Ala Glu Pro Ile Ile Thr His Leu Thr
770 775 780

<210> 37392
<211> 299
<212> PRT
<213> A.fumigatus

<400> 37392
Thr Ser Ile Gly Gln Gln Gly Ser Asn Asn Ala Asn Pro Gly Ser Ala
1 5 10 15
Thr Asn Ala Ala Gly Ser Ala Ser Ala Val Asn Ala Ala Ile Ala Ala
20 25 30
Ile Thr Ser Asn Pro Ser Ser Asn Thr Thr Ala Thr Ser Ser Ser Ser
35 40 45
Asn Asn Arg Trp Thr Ser Asn Val Gln Glu Ile Leu Ser Met Asn Leu
50 55 60
Glu Leu Trp Arg Asn Ser Leu Pro Asp Val Met Lys Trp Lys Asp Thr
65 70 75 80
Asp Pro Pro Ser Asn Asp Ile Asn Val Ala Arg Met Arg Ala Lys Tyr
85 90 95
Tyr Gly Ala Arg Tyr Ile Ile His Arg Pro Leu Leu Tyr His Ala Leu
100 105 110
His Phe Ala Gly Leu Pro Asn Pro Asn Pro Thr Ala Ala Ser Val Glu
115 120 125
Ser Pro Ala Gly Ser Ile Leu Ser Gly Ser Lys Ser Gln Gln Val Ser
130 135 140
Pro Ser Met Ser His Ser Gln Arg Ala Ser Asn Met Ala Arg Leu Ser
145 150 155 160
Ser Asp Met Gly Met Ala Ala His Ser Ala Pro Pro Ser Phe Gln Gly
165 170 175
Gly Ser Met Gly Thr Ile Ala Tyr Arg Asp Leu Pro Pro Lys Leu Arg
180 185 190
Arg Ala Cys Lys Val Cys Ile Asp Ser Ala Ile Leu Ser Thr Glu Ala
195 200 205

```
Phe Asp Gly Ile Glu Gly Arg Pro Ile Val Thr Asn Ile Phe Gly Thr
    210                 215                 220
Ala His Ala Gln Phe Gly Asn Met Leu Val Leu Ser Ala Thr Tyr Met
225                 230                 235                 240
Ser Ser Leu Ser Glu Leu Val Asp Arg Asn Val Leu Glu Lys Leu Leu
                245                 250                 255
Lys Arg Thr Ile Lys Phe Leu Leu Gln Ser Arg Tyr Ile Ser Pro Ser
            260                 265                 270
Leu Arg Ala Asp Ala Arg Ile Leu Thr Glu Ile Tyr Glu Lys Ile Phe
        275                 280                 285
Gly Glu Pro Ala Thr Ser Phe Ser Ser Tyr Val
    290                 295
```

<210> 37393
<211> 81
<212> PRT
<213> A.fumigatus

<400> 37393

```
Asp Asp Phe Arg Leu Glu Leu Tyr Ser Ile Leu Tyr Phe Met Ala Ser
1               5                   10                  15
Leu Tyr Ser Leu Tyr Ile Asp Val Pro Ile Asp Thr Ile Tyr Tyr Asn
            20                  25                  30
Thr Asn Leu Tyr Ile Lys Val Ser Ala His Ala Leu His Tyr Ile Ser
        35                  40                  45
Leu Leu Gly Asp Leu Asn Pro Thr Leu Thr Gln Lys Lys Ser Pro Val
    50                  55                  60
Ile Ile Glu Met Tyr Asp Gln Ala Asp Gln Glu Ser Leu Leu Tyr Ser
65                  70                  75                  80
Asp
```

<210> 37394
<211> 72
<212> PRT
<213> A.fumigatus

<400> 37394

```
Phe Leu Gln His Asp Trp Leu Cys Ala Phe Ile Phe Glu Ser Asn Arg
1               5                   10                  15
Lys Ser Asn Leu Asn Ser Ser Gly Leu Leu Val Tyr Leu Ser Asn Ser
            20                  25                  30
Val Leu Leu Ala Leu Ile Arg Cys Ser Phe Ser Ser Thr Asp Leu Glu
        35                  40                  45
Thr Ile Met Pro Ser Lys Thr Ile Ile Val Thr Gly Ala Ser Arg Gly
    50                  55                  60
Thr Ser Ile Tyr Gln Ala Ser Pro
65                  70
```

<210> 37395
<211> 134
<212> PRT
<213> A.fumigatus

<400> 37395

```
Ile His Leu Ala Asn Ser His Ser Thr Thr Leu Ser Gly Ile Gly Leu
```

```
1               5                   10                  15
Ala Ile Ala Lys Tyr Leu Leu Thr Ala Pro Gln Ser His Asn Val Val
            20                  25                  30
Val Ile Ala Arg Ser Val Glu Pro Leu Gln Lys Leu Lys Glu Gln Tyr
        35                  40                  45
Asn Lys Gln Val Glu Val Leu Asn Gly Asp Leu Ala Asp Phe Ser Leu
    50                  55                  60
Gly Gln Lys Ala Val Asp Leu Ala Ile Lys Ser Phe Gly Arg Leu Asp
65                  70                  75                  80
Gly Leu Val Leu Asn His Gly Ile Leu Gly Gln Val Gly Lys Ile Asp
                85                  90                  95
Lys Ala Asp Pro Glu Gln Trp Lys Leu Gly Phe Asp Val Asn Phe Ile
            100                 105                 110
Ser Phe Val Ala Phe Val Arg His Asp Arg Tyr Trp Met Leu Val Leu
        115                 120                 125
Glu Cys Lys Gly Thr Asn
    130
```

<210> 37396
<211> 124
<212> PRT
<213> A.fumigatus

<400> 37396

```
Ile Lys Ala Gly Leu Pro Ala Leu Arg Glu Ala Lys Gly Lys Ile Ile
1               5                   10                  15
Phe Thr Ser Ser Gly Ala Ala Val Ser Ala Tyr Arg Gly Trp Ala Leu
            20                  25                  30
Tyr Gly Ala Thr Lys Ala Ala Met Asn His Leu Ala Leu Ser Leu Gly
        35                  40                  45
Glu Glu Glu Pro Asp Val Thr Thr Ile Ser Ile Arg Pro Gly Met Val
    50                  55                  60
Asp Thr Glu Met Gln Arg Glu Leu Arg Glu Asp His Ala Ala Asn Leu
65                  70                  75                  80
Glu Pro Gln Met His Ser Lys Phe Thr Thr Ala His Lys Asp Gly Lys
                85                  90                  95
Leu Leu Lys Pro Glu Gln Pro Gly His Val Met Ala Lys Leu Val Leu
            100                 105                 110
Asp Ala Pro Ala Ser Leu Ser Gly Lys Phe Leu Ser
        115                 120
```

<210> 37397
<211> 109
<212> PRT
<213> A.fumigatus

<400> 37397

```
Leu Thr Leu Phe Pro Thr Ala Thr Val Gln Lys Ile Ile Thr Glu Ile
1               5                   10                  15
Leu Pro Pro Ser Ser Gly Gln Thr Phe Ser Lys Asp Ala Arg Asp Leu
            20                  25                  30
Leu Met Glu Cys Cys Val Glu Phe Ile Thr Leu Ile Ser Ser Glu Ala
        35                  40                  45
Asn Asp Ile Ser Glu Lys Glu Ala Lys Lys Thr Ile Ala Cys Glu His
    50                  55                  60
Val Glu Arg Ala Leu Arg Asp Leu Gly Phe Gly Asp Tyr Ile Pro Glu
```

65 70 75 80
Val Leu Ala Val Ala Glu Glu His Lys Glu Gln Leu Lys Val Cys Ile
85 90 95
Leu Gln Tyr Leu Ser Lys Lys Ala Thr Phe Ala Lys Glu
100 105

<210> 37398
<211> 70
<212> PRT
<213> A.fumigatus

<400> 37398
Val Trp Cys Thr Ser Ser Leu Cys Phe Leu Phe Asn Leu Tyr Asp Glu
1 5 10 15
Tyr Pro Thr Phe His Ala Lys Tyr Glu Gly Ala Leu His Leu Met Leu
20 25 30
Leu Lys Cys Ile Ala Phe His Leu Ser Thr Asp Tyr Asp Tyr Lys Leu
35 40 45
Leu Pro Phe Ile Ser Ile Cys Ser Leu Val Gln Thr Cys Thr Asp Gly
50 55 60
His Met Tyr Arg Pro Arg
65 70

<210> 37399
<211> 194
<212> PRT
<213> A.fumigatus

<400> 37399
Arg Lys Ser Cys Tyr Thr Asp Ile Ala Gln Thr Glu Asn Thr Asn Asp
1 5 10 15
His Asn Leu Thr Asp Glu Ala Arg Ser Lys Ala Pro Ser Gly Pro Val
20 25 30
Met Gly Pro Leu His Asp Glu Ala Pro Ser Ser Asn Lys Leu Pro Thr
35 40 45
Glu Leu Gln Leu Ser Pro Ala Ser Ala Ala Arg Thr Leu Val His Asp
50 55 60
Leu Thr Leu Pro Pro Val Ala Asn Leu Asp Ile Pro Pro Ser Pro Pro
65 70 75 80
Gly Ser Pro Glu Pro Met Ala Asn Ala Lys Phe Thr His Phe Leu Ser
85 90 95
Leu Lys Lys Gln Gly Thr His Phe Asn Glu Lys Leu Ala Asn Ser Ser
100 105 110
Ser Leu Arg Asn Pro Ser Leu Leu Pro Lys Leu Met Asp His Ala Gly
115 120 125
Ile Asp Glu Arg Ala Gln Tyr Asn Thr Ser Leu Pro Ser Glu Leu Trp
130 135 140
Asn Pro Ser Gly Leu Pro Ser Trp Gly Tyr Lys Glu Glu Leu Leu Lys
145 150 155 160
Ser Gln Lys Glu Ser Asn Asn Lys Phe Glu Glu Arg Val Arg Thr Gly
165 170 175
Gln Arg Glu Ser Ile Asp Phe Val Pro Ser Val Thr Met Asp Ser Asn
180 185 190
Thr Thr

<210> 37400
<211> 225
<212> PRT
<213> A.fumigatus

<400> 37400
Glu Arg Asp Asp Glu Ile Leu Ile Asp Ala Gln Ala Ser Gly Gln Gly
1 5 10 15
Glu Ala Pro Ser Pro Ile Pro Thr Glu Ser Ala Gln His Ser Asp Met
20 25 30
Arg Ile Asp Glu Glu Ser Arg Pro Val Phe Thr Pro Ile Ala Asp Ala
35 40 45
Gly Thr Val Leu Arg Val Glu Thr Arg Lys Val Pro Val Pro Pro His
50 55 60
Arg Met Thr Pro Leu Lys Ala Asn Trp Pro Lys Ile Tyr Pro Pro Leu
65 70 75 80
Val Glu His Leu Lys Leu Gln Val Arg Met Asn Ile Lys Asn Arg Ala
85 90 95
Val Glu Leu Arg Thr Ser Lys Phe Thr Thr Asp Thr Gly Ala Leu Gln
100 105 110
Lys Gly Glu Asp Phe Val Lys Ala Phe Thr Leu Gly Phe Asp Val Asp
115 120 125
Asp Ala Ile Ala Leu Leu Arg Leu Asp Asp Leu Tyr Ile Arg Ser Phe
130 135 140
Glu Ile Arg Asp Val Lys Ala Ser Leu Asn Gly Glu His Leu Ser Arg
145 150 155 160
Ala Ile Gly Arg Ile Ala Gly Lys Asp Gly Lys Thr Lys Phe Ala Ile
165 170 175
Glu Asn Ala Ser Arg Thr Arg Val Val Leu Gln Gly Thr Lys Val Thr
180 185 190
Ile Leu Gly Arg Phe Arg Asp Leu Gly Ile Ala Gln Glu Ala Ile Val
195 200 205
Ser Leu Ile Leu Gly Ser Pro Pro Val Ser Cys Cys Val Ala Leu Pro
210 215 220
Val
225

<210> 37401
<211> 268
<212> PRT
<213> A.fumigatus

<400> 37401
Gly Tyr Arg Ile Phe Leu Cys Ser Ala Lys Gln Arg Arg Ser Gln Arg
1 5 10 15
Thr Leu Ile Leu Pro Val Cys Asn Arg Ser Leu Ile His Asn Lys Glu
20 25 30
Pro Ser Leu Thr Ser Gly Leu Ser Tyr Thr Asp Asn Gly Gly Ser Thr
35 40 45
Leu Gly Ile Thr Gly Ser Asp Phe Ala Ile Leu Ala Gly Asp Thr Arg
50 55 60
Ser Val Ala Gly Tyr Asn Ile Asn Ser Arg Tyr Val Pro Lys Val Phe
65 70 75 80
Lys Ile Gly Gly Asp Ala Glu Thr Gly Glu Gly Ala His Ile Leu Leu
85 90 95
Ser Val Val Gly Phe Ala Ala Asp Gly Gln Ala Leu Lys Glu Arg Leu

```
            100                 105                 110
Asp Ala Val Val Arg Met Tyr Lys Tyr Gln His Gly Lys Pro Met Ser
        115                 120                 125
Val Arg Ala Cys Ala Gln Arg Leu Ser Thr Ile Leu Tyr Gln Lys Arg
    130                 135                 140
Phe Phe Pro Tyr Tyr Val His Ala Ile Leu Ala Gly Leu Asp Glu Glu
145                 150                 155                 160
Gly Lys Gly Ala Leu Tyr Ser Tyr Asp Pro Val Gly Ser Tyr Glu Arg
                165                 170                 175
Glu Gln Cys Arg Ala Ala Gly Ser Ala Ala Ser Leu Ile Met Pro Phe
            180                 185                 190
Leu Asp Asn Gln Val Asn Phe Lys Asn Gln Tyr Ile Pro Gly Ser Gly
        195                 200                 205
Glu Gly His Ala Leu Glu Pro Lys Lys Ala Glu Pro Leu Pro Arg Ala
    210                 215                 220
Thr Val Glu Gln Leu Val Arg Asp Ala Phe Thr Ser Ala Val Glu Arg
225                 230                 235                 240
His Ile Glu Val Gly Asp Gly Leu Gln Met Met Val Ile Thr Gln Arg
                245                 250                 255
Gly Ile Glu Glu Ile Tyr Thr Pro Leu Lys Lys Asp
            260                 265
```

<210> 37402
<211> 289
<212> PRT
<213> A.fumigatus

<400> 37402

```
Gly Lys Cys Ser Glu Cys Asp Gly Ile Met Ser Phe Asn Phe Gly Arg
1               5                   10                  15
Arg Leu Tyr Thr Ser Ile Trp Asp Thr Ala His Pro Leu Leu Val Arg
            20                  25                  30
Glu Leu Arg Asn Ser Arg Met Thr Phe Phe Phe Glu Ser Pro Ser Thr
        35                  40                  45
Gly Asn Trp Phe Arg Arg Phe Leu Phe Asn Thr His Ala Arg Lys Ile
    50                  55                  60
Ser Ser Leu Pro Pro Arg Thr Arg His Ile Thr Lys Arg Phe Ala Ser
65                  70                  75                  80
Gly Ser Phe Phe Met Leu Gly Ile Ser Pro Ser Pro Cys Ala Val Glu
                85                  90                  95
Ala Gly Thr Ser Cys Ala Ile Ser Pro Glu Lys Phe Val Ser Gln Ser
            100                 105                 110
His Leu Leu Asp Arg Lys Phe Val Cys Ala Ser Leu Tyr Thr Trp Lys
        115                 120                 125
Arg Gly Leu His Thr Thr Lys Asp Asp Asp Gly Leu Lys Ser Glu Gln
    130                 135                 140
Ser Asn Glu Leu Leu Thr Asn Asp Ser Asn Thr Ser Pro Ser Pro Ser
145                 150                 155                 160
Arg Glu Thr Ala Asp Ser Asp Thr Arg Ser Gly Thr Met Lys Ser Gln
                165                 170                 175
Glu Glu His Ile Glu Gly Phe Thr Ser Arg His Ile Met Asn Arg Leu
            180                 185                 190
Pro His Met Ser His Leu His Arg Pro Thr Lys Glu Glu Leu Leu Ala
        195                 200                 205
Ala Ala Asn Gly Phe Trp Ser Arg Leu Lys Val Arg Phe Lys Trp Phe
    210                 215                 220
```

```
Ser Ile Arg Ser Val Arg Pro Phe Asn Phe Asp Glu Ile Thr Ala Leu
225                 230                 235                 240
Phe Ser Trp Val Leu Leu Gly His Val Val Trp Ile Val Leu Gly Thr
                245                 250                 255
Thr Thr Phe Phe Ser Leu Leu Ile Ile Ala Ile Asn Thr Val Leu Ala
            260                 265                 270
Gln Gly Met Phe Arg Val Ile Asp Arg Arg Ser Tyr Ser Asn Tyr Met
        275                 280                 285
Tyr
```

<210> 37403
<211> 135
<212> PRT
<213> A.fumigatus

<400> 37403

```
Glu Thr Leu Ala Gly Trp Val Gly Asn Tyr Leu Thr Lys Ser Ser Gly
1               5                   10                  15
Val Lys Val Val Phe Glu Ser Ala Ile Val Pro Lys Trp Lys Asp Gly
            20                  25                  30
Val Ile Thr Phe Lys Asn Val Phe Val Ser Arg Arg Pro Gly Gln Gly
        35                  40                  45
Thr Gly His Val Ser Lys Gly Ser Ser Lys Thr Ala Ala Ala Val Ala
    50                  55                  60
Ala Ala Ala Ala Leu Ser Gly Ser Ser Ser Pro Glu Pro Phe Ser Asp
65                  70                  75                  80
Gln Gln Ser Ile Pro Asp Glu Glu Asp Thr Asn Tyr Thr Gln Phe Asp
                85                  90                  95
Leu Ser Ile Glu Thr Val Asn Val Thr Leu Ser Phe Thr Lys Trp Ile
            100                 105                 110
Asn Gly Lys Gly Leu Leu Arg Asp Val Asp Val Phe Gln His Ala Ala
        115                 120                 125
Arg Arg Leu Ile Ala Arg Pro
    130                 135
```

<210> 37404
<211> 117
<212> PRT
<213> A.fumigatus

<400> 37404

```
Val Thr Arg Leu Ala Arg Gly Tyr Val Val Thr Asn Arg Arg Leu Gly
1               5                   10                  15
Ile Pro Tyr Gln Arg His Trp Glu Gly Asn Cys Ser Arg Thr Ala Asn
            20                  25                  30
Pro Ala Arg Ser Trp Glu Gln Val Lys Thr Asn Ala Phe Leu Gly Asp
        35                  40                  45
Arg Ala Pro Arg Ala Ile Gly Arg Asn Phe Val Arg Ser Thr Tyr Gly
    50                  55                  60
Ser Arg Phe Leu Ser His Lys Ser Leu Ile Ala Gln Pro Ala Pro Leu
65                  70                  75                  80
Met Ile Asn Ala Pro Val Lys Lys Arg Pro Val Val Pro Arg Ile Cys
                85                  90                  95
Met Gly Val Ala Asp Ala Met Gly Ala Ala Met Ser Val Glu Lys Thr
            100                 105                 110
```

His Gly Lys Lys Arg
115

<210> 37405
<211> 94
<212> PRT
<213> A.fumigatus

<400> 37405
Ala Tyr Leu Pro Leu Arg Arg Phe Lys Thr Cys Asn Leu Gly Lys Pro
1 5 10 15
Ile Leu His Ile Glu Leu Arg Lys Trp Ala His Val Leu Leu Val Ala
20 25 30
Pro Leu Ser Ala Asn Thr Leu Ala Lys Met Thr Met Gly Ile Ala Asp
35 40 45
Asn Leu Leu Leu Ser Val Ile Arg Ala Trp Asp Thr Thr Gly Lys Val
50 55 60
Asp Ser Gly Leu Lys Asp Arg Lys Pro Val Val Phe Val Ala Pro Gly
65 70 75 80
Glu Met Arg Gln Tyr Ile Thr Cys Ser Leu Ser Asn Leu Phe
85 90

<210> 37406
<211> 85
<212> PRT
<213> A.fumigatus

<400> 37406
Leu Ser Ile Ala Met Asn Thr Ala Met Trp Asn His Pro Ala Thr Lys
1 5 10 15
Arg Gln Leu Lys Ile Leu Thr Asp Glu Trp Gly Val Ser Arg Thr Asn
20 25 30
Glu Glu Gly Trp Val Thr Val Leu His Pro Ile Glu Lys Ser Leu Ala
35 40 45
Cys Gly Asp Thr Gly Asn Gly Ala Met Met Asp Trp Lys Asp Ile Val
50 55 60
Asn Val Val Glu His His Leu Gly Ile Ser Ser Val Lys Ile Lys Asp
65 70 75 80
Ile Arg Cys Gly Thr
85

<210> 37407
<211> 434
<212> PRT
<213> A.fumigatus

<400> 37407
Gly Arg Asn Leu Trp Lys Leu Ser Pro Ile Thr Ala Tyr Tyr Lys Met
1 5 10 15
Arg Leu Gln Phe Ser Tyr Leu Pro Pro Val Arg Leu Asp Gln Leu Ser
20 25 30
Arg Arg Tyr Gly Ser Gly Ser Ser Leu Leu Asn Asp Lys Arg His Arg
35 40 45
Leu Leu Cys Asn Arg Asn Ser Leu Thr Thr Ser Ser Arg Val Asn Ser
50 55 60
Thr Gly Arg Gln Ser Ala Tyr Thr Ala Lys Pro Arg Ser Ala Ile Thr

```
65                  70                  75                  80
Lys Arg Thr Ser Leu Met Arg Cys Gln Pro His Ser Ser Gln Ser Pro
                85                  90                  95
Ser Ser Thr Asp Arg Pro Ala Ala Ile Thr Asp Asn Asn Pro Ala Thr
            100                 105                 110
His Tyr Ile Pro Pro Gln Lys Gly Phe Ile Ala Ser Leu Pro Gly Ser
        115                 120                 125
Trp Ile Pro Tyr Ala Glu Leu Ile Arg Leu Asp Lys Pro Thr Gly Thr
    130                 135                 140
Tyr Tyr Leu Phe Phe Pro Cys Val Phe Ser Thr Leu Ile Ala Ala Pro
145                 150                 155                 160
Met Ala Ser Ala Thr Pro Met Gln Ile Leu Gly Thr Thr Gly Leu Phe
                165                 170                 175
Phe Thr Gly Ala Leu Ile Met Arg Gly Ala Gly Cys Ala Ile Asn Asp
            180                 185                 190
Leu Trp Asp Arg Asn Leu Asp Pro Tyr Val Glu Arg Thr Lys Phe Arg
        195                 200                 205
Pro Ile Ala Arg Gly Ala Leu Ser Pro Lys Lys Ala Leu Val Phe Thr
    210                 215                 220
Cys Ser Gln Leu Leu Ala Gly Leu Ala Val Leu Leu Gln Phe Pro Ser
225                 230                 235                 240
Gln Cys Leu Trp Tyr Gly Ile Pro Ser Leu Leu Leu Val Thr Thr Tyr
                245                 250                 255
Pro Leu Ala Lys Arg Val Thr Tyr Tyr Pro Gln Ala Val Leu Gly Leu
            260                 265                 270
Thr Phe Ser Trp Gly Ala Ile Met Gly Phe Pro Ala Leu Gly Val Asp
        275                 280                 285
Leu Phe Ser Asn His Ala Ala Leu Glu Ala Ala Ala Ala Leu Tyr Ser
    290                 295                 300
Ser Cys Val Ala Trp Thr Val Leu Tyr Asp Met Ile Tyr Ala His Met
305                 310                 315                 320
Asp Ile Lys Asp Asp Val Ala Ala Gly Ile Lys Ser Ile Ala Leu Arg
                325                 330                 335
His Glu His Asn Thr Lys Thr Val Leu Ser Gly Leu Ala Ala Val Gln
            340                 345                 350
Val Ala Leu Leu Ala Thr Ala Gly Val Ala Ala Gly Ala Gly Pro Leu
        355                 360                 365
Phe Tyr Val Gly Thr Cys Gly Ser Ala Ala Val Ser Leu Gly Ile Met
    370                 375                 380
Ile Trp Lys Val Gln Leu Lys Asn Val Lys Asn Cys Trp Trp Trp Phe
385                 390                 395                 400
Lys Asn Gly Cys Leu Leu Thr Gly Gly Gly Ile Thr Leu Gly Met Phe
                405                 410                 415
Phe Glu Tyr Ile Ala Gln Thr Thr Gly Leu Tyr Lys Ser Asp Asn Asn
            420                 425                 430
Leu His
```

<210> 37408
<211> 69
<212> PRT
<213> A.fumigatus

<400> 37408

```
Leu Lys Pro Leu Ala Cys Ile Lys Ala Ile Ile Thr Tyr Ile Lys Arg
1               5                   10                  15
```

```
Ile Ala Leu Thr Asn Ile Gly Gln Asp Ser Arg Phe Leu Ser Ser Ser
            20                  25                  30
Ala Ala Asn Ile Phe Tyr Leu Asn Thr Thr Asp Ser Lys Met Met Leu
        35                  40                  45
Tyr Tyr Val Asn Tyr Ile Phe Pro Ile His His Gly Thr Val Thr Ser
    50                  55                  60
Ile Thr Thr Ser Lys
65
```

<210> 37409
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37409

```
Ser Leu Glu Arg Gln Ala Pro Pro Leu Thr Leu Gln Ser Gln Phe Leu
1               5                   10                  15
Asp Tyr Leu Val Glu Gly Gln Phe Asn Arg Thr Pro Ile Ser Val Tyr
            20                  25                  30
Cys Lys Thr Gln Val Ser Asp His Glu Glu Asp Val Ser His Glu Met
        35                  40                  45
Ser Ala Thr Phe Phe Pro Val Pro Ile Leu Tyr Arg Ser Pro Ser Ser
    50                  55                  60
His Asn Gly Gln
65
```

<210> 37410
<211> 201
<212> PRT
<213> A.fumigatus

<400> 37410

```
Leu Ile Leu Val Leu Gly Ile Ile Pro Arg Ala Ala Gln Leu Leu Phe
1               5                   10                  15
Glu Lys Leu Asp Gly Pro Ala Lys His Asn Arg Asn Ser Ser Thr Gly
            20                  25                  30
Leu Arg Thr Pro Ala Arg Tyr Ser Ile Ser Ser Thr Ser Ser Phe Gly
        35                  40                  45
Arg Ala Thr Ala Glu Lys Asn Trp Gln Leu Lys Ala Ser Tyr Val Glu
    50                  55                  60
Val Arg His Leu Arg Thr Asp Ser Glu Ala Cys Ser Arg Asn Cys Leu
65                  70                  75                  80
Leu Thr Cys Leu Gln Ile Tyr Asn Glu Gln Leu Arg Asp Leu Leu Leu
                85                  90                  95
Pro Glu Ser Thr Pro Met Ser Asp Arg Gly Ser Val Ala Ile Arg Glu
            100                 105                 110
Asp Ala Lys Gly Arg Ile Ile Leu Thr Gly Leu His Gln Val Asn Ile
        115                 120                 125
Asn Ser Phe Glu Asp Leu Met Asn Ala Leu Ser Phe Gly Ser Ser Ile
    130                 135                 140
Arg Gln Thr Asp Ser Thr Ala Ile Asn Ala Lys Ser Ser Arg Ser His
145                 150                 155                 160
Ala Val Phe Ser Leu Asn Leu Val Gln Arg Lys Ser Ser Ser Ser Ile
                165                 170                 175
Thr Phe Ala Lys Arg Glu Thr Asp Val His Ala Gly Arg Gly Ala Phe
            180                 185                 190
```

Arg Leu Arg Cys Val Arg His Gly Arg
195 200

<210> 37411
<211> 163
<212> PRT
<213> A.fumigatus

<400> 37411
Ser Trp Arg Arg Lys Ser Gly Leu Arg Arg Gly Trp Gln Asn Ser Gly
1 5 10 15
Gln Ser Arg Tyr Val Ser Arg Ala Ile Trp Leu Arg Thr Cys Glu Gly
20 25 30
Gln Gly Arg Val Met Arg Leu Asn Gln Gln Ala Asp Val Ile Thr Ala
35 40 45
Val Arg Val Arg Pro Pro Leu Lys Pro Thr Asp Pro Gly Tyr Glu Leu
50 55 60
Ile Pro Gln Arg Phe Gln Arg Ser Met Val His Val Thr Ser Pro Thr
65 70 75 80
Ser Leu Ala Val Asp Val Pro Gln Gly Arg Lys Leu Phe Val Phe Asp
85 90 95
Arg Val Phe Pro Glu Thr Thr Asp Gln Asn Gly Ile Trp Glu Tyr Leu
100 105 110
Ser Asp Ser Val Ser Ser Phe Leu Gln Gly Tyr Asn Val Ser Ile Leu
115 120 125
Ala Tyr Gly Gln Ser Gly Ala Gly Lys Ser Tyr Thr Met Gly Thr Ser
130 135 140
Gly Pro Ser Glu Gln His Asp Thr Gln Ser Met Gly Ser Ser Gly Ser
145 150 155 160
Arg His Ile

<210> 37412
<211> 924
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (245)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37412
Ala Ser Ala Pro Arg Phe Val Arg Leu Ile Pro Pro Arg Ser Thr Gln
1 5 10 15
Ser Pro Pro Asp Pro Thr Gln Ser Ser Val Ser Ile Leu Cys Asn Gly
20 25 30
Asn Pro Gln Ala Gln Leu His Ser Pro Lys Glu Lys Arg Met Ser Met
35 40 45
Pro Val Glu Gly Pro Ser Gly Ser Asp Ala Ser Val Thr Val Asp Ser
50 55 60
Lys Leu His Phe Val Asp Leu Ala Gly Ser Glu Arg Leu Lys Asn Thr
65 70 75 80
Gly Ala Ser Gly Glu Arg Ala Arg Glu Gly Ile Ser Ile Asn Ala Gly
85 90 95
Leu Ala Ala Leu Gly Lys Val Ile Ser Gln Leu Ser Ser Arg Gln Ser

```
                100                 105                 110
Gly Ala His Val Ser Tyr Arg Asp Ser Lys Leu Thr Arg Leu Leu Gln
        115                 120                 125
Asp Ser Leu Gly Gly Asn Ala Tyr Thr Tyr Met Val Ala Cys Val Thr
    130                 135                 140
Pro Ala Glu Phe His Leu Ser Glu Thr Leu Asn Thr Val Gln Tyr Ala
145                 150                 155                 160
Gln Arg Ala Arg Ala Ile Gln Ser Lys Pro Gln Ile Gln His Ile Ala
                165                 170                 175
Asp Glu Ser Asp Lys His Ala Val Ile Glu Arg Leu Lys Ala Glu Val
            180                 185                 190
Ala Phe Leu Arg Gln Gln Ile Arg Ile Ala Glu Asp Asn Asp Arg Arg
        195                 200                 205
Ala Ala Gly Pro Gln Glu Arg Ala Glu Arg Gln Asn Glu Arg Glu Lys
    210                 215                 220
Glu Leu Gln Asn Gln Leu Leu Asp Val Gln Glu Ser Tyr Asn Ala Leu
225                 230                 235                 240
Ser Gln Arg His Xaa Lys Leu Ile Ser Glu Leu Ala Arg Asp Ser Glu
                245                 250                 255
His Ser Thr Asn Gly Glu Ala Asp Asp Val Ala Ser Ala Val Gly Lys
            260                 265                 270
Ser Ser Val Glu Arg Leu Lys Arg Ser His Ser Phe Ala Gln Ser Val
        275                 280                 285
Glu Gln Val Val Leu Glu Tyr Glu Lys Thr Ile Gln Ser Leu Glu Ser
    290                 295                 300
Ser Leu Ser Asn Thr Arg Ser Ser Leu Ala Val Thr Glu Ser Thr Leu
305                 310                 315                 320
Leu Glu Arg Glu Thr Lys Cys Ala Tyr Val Glu Thr Val Asn Ala Gln
                325                 330                 335
Leu Gln Ala Arg Ile Gln Lys Leu Leu Asp Arg Glu Ala Ser Thr Glu
            340                 345                 350
Ser Tyr Met His Glu Leu Glu Ser Arg Leu Asp Asp Gln Ser Ser Gly
        355                 360                 365
Glu Glu Lys Tyr Thr Ala Ile Ile Ala Glu Leu Arg Lys Glu Leu Ser
    370                 375                 380
Arg Ala Arg Glu Ser Glu Ala Gly Cys Glu Glu Tyr Ile Ser Thr Leu
385                 390                 395                 400
Glu Glu Arg Leu Ala Glu Ala Asp Gln Asp Met Glu Leu Met Gln Arg
                405                 410                 415
Glu Val Glu Arg Leu Glu His Val Ile Glu Arg Gln Arg Ser Leu Gly
            420                 425                 430
Lys Leu Asp Ser Leu Leu Tyr Glu Leu Asp His Val His Gln Asn Gly
        435                 440                 445
Ala Ser His Asp Asp Leu Gln Glu Glu Met Asp Ser Pro Ala Ala Ala
    450                 455                 460
Arg Ser Thr Arg Asn Ser Arg Gln Arg Ala Thr Thr Leu Glu Val Leu
465                 470                 475                 480
Thr Glu Ala Ala Glu Thr Ala Ile Pro Glu Ser Asp Glu Asp Leu Ala
                485                 490                 495
Glu Thr Val Pro Asp Ile Glu Glu Glu Ser Ile Val Glu Ala Val Thr
            500                 505                 510
Thr Ala His Val Asp Gly Ser Asp Leu Glu Val Leu Glu Met Val Thr
        515                 520                 525
Ser Arg Leu Glu Thr Asp Pro Asn Ala Glu Pro Arg Ala Gln Ser Pro
    530                 535                 540
Ser Leu Thr Glu Ser Lys Ile Val Ala Asp Lys Leu Glu Thr Val Ser
```

545 550 555 560
Gln Glu Leu Leu Asp Leu Arg Leu Gln His Glu Thr Thr Val Asn Gln
565 570 575
Tyr Glu Leu Leu Glu Ala Lys Tyr Glu Glu Ala Leu Arg Ala Leu Ala
580 585 590
Lys Leu Gln Gln Asp Ala Ala Asp Glu Val Arg His Pro Ala Ser Ala
595 600 605
Val Gln Gly Leu Ile Ser Pro Val Thr Ala Ser Arg Pro Val Ser Phe
610 615 620
Leu Glu Asp Ala Lys Ala Pro Asp Ser Lys Ser Gly Lys Gln His Ser
625 630 635 640
Phe Ser Gln Ser Leu Ser Ser Glu Leu Ser Leu Val Gly Glu Pro Ala
645 650 655
Ala Ser Gln Glu Pro Ser Thr Asn Gly His His Glu Pro Ala Ala Glu
660 665 670
Ile Pro Val Asp Ser Gln Ala Ser His Asn Glu Lys Asn Ser Leu Glu
675 680 685
Ile Glu Arg Met Arg Gln Leu Leu Ser Glu His Gln Glu Gly Val Gln
690 695 700
Leu Met Thr Gln Lys Tyr Ala Glu Leu Gln Ala Glu His Glu Gly Ala
705 710 715 720
Leu Ala Leu Val Glu Thr Leu Lys Ser Glu Leu Gln Lys Ser Lys Ser
725 730 735
Ala Ser Pro Pro Thr Thr Pro Gly Phe Lys Thr Asn Val Ile Arg Arg
740 745 750
Lys Ser Ser Gln Ser Leu Met Ser Thr Val Asp Arg Ala His Arg Ser
755 760 765
Leu Ala Ala Leu Lys Asn Ile Ala Ile Glu Lys Phe Glu Gly Gln Pro
770 775 780
Asp Thr Met Gln Asn Phe Glu Val His Leu Asp Ala Ala Met His Glu
785 790 795 800
Leu His Ser Arg Met Glu Arg Ile Gln Ser Leu Glu Ala Glu Asn Gln
805 810 815
Ser Val Lys Lys Glu Met Glu Met Lys Ala Thr Ile Ile Ser Gly Leu
820 825 830
Thr Arg Glu Arg Ser Ser Leu Gln Gly Gly Thr Pro Ser Val Asp Met
835 840 845
Gly Leu Val Ser Gln Leu Arg Asp Gln Val Val Gln Gln Glu Asn Leu
850 855 860
Ile Asn Glu Leu Arg Glu Ala His Glu Ser Arg Glu Lys Lys Leu Leu
865 870 875 880
Ala Glu Ile Ala Glu Leu Lys Gly Leu Leu Lys Thr Gln Glu Ala Ala
885 890 895
Ala Lys Ala Gln Asp Ala His Ala Glu Glu Gln Asp Lys Gln Ser Leu
900 905 910
His His Gly Gly Ala Gly Pro Arg Tyr Val Arg Pro
915 920

<210> 37413
<211> 1082
<212> PRT
<213> A.fumigatus

<400> 37413
Ser His Pro Ile Thr Met Ser Ser Thr Asn Leu Arg Leu Leu Gln Leu
1 5 10 15

```
Asn Ile Met Lys Ser Arg Ala Gly Met Glu Ala Leu Ile Asn Asp His
            20                  25                  30
Gln Thr Gln Asn Leu Asp Val Leu Leu Ile Gln Glu Pro Pro Val Thr
        35                  40                  45
Ala Tyr Arg Thr His Val Asn His Ser Ala Trp Arg Leu Tyr Arg Pro
    50                  55                  60
Thr Tyr Ala Asp Glu Ser Ala Arg Phe Arg Ser Leu Leu Tyr Ile Asn
65                  70                  75                  80
Arg Arg Ile Ser Thr Ser Ser His Arg Gln Ile Leu Cys Asn His Pro
                85                  90                  95
Asp Val Thr Ala Val Lys Ile Trp Thr Pro Glu Val Gln Tyr Leu Leu
            100                 105                 110
Phe Ser Ile Tyr Ile Gln Pro Val Ala Ile Tyr Gln Pro Ala Glu Val
        115                 120                 125
Thr Thr Ala Glu Leu Ile Leu Glu Glu Ile Gln Ser Ser Ile Arg Gln
    130                 135                 140
His Ser Thr Gly Thr Asp Lys Val Thr Lys Leu Ile Ile Ser Gly Asp
145                 150                 155                 160
Phe Asn Arg His His Pro Ala Trp Ser His Arg Pro Val His His Thr
                165                 170                 175
Phe Ala Glu His Ala Glu Glu Leu Ile Asn Phe Phe Gln Ile His Glu
            180                 185                 190
Leu Gln Trp Cys Leu Pro Gln Gly Thr Pro Thr Phe Trp Ser Leu Ser
        195                 200                 205
Asn Pro Gly Lys Ala Ser Thr Leu Asp Leu Thr Leu Thr Asn Asp Pro
    210                 215                 220
Thr Lys Leu Ile Lys Cys His Leu Tyr His Asp His Tyr Gly Ser Asp
225                 230                 235                 240
His Arg Gly Thr Phe Ser Glu Trp Asn Leu Gln Pro Glu Arg Asn Ile
                245                 250                 255
Asp Ser Lys Pro Lys Arg Ala Tyr Asp Lys Ala Asn Trp Ala Arg Ile
            260                 265                 270
Gly Gln Lys Ile Leu Glu Val Met Gly Pro Leu Pro Gly Ile His Ser
        275                 280                 285
Asn Ser Asp Leu Asp Thr Ala Thr Glu Lys Leu Val Gln Ser Thr Ala
    290                 295                 300
Ala Val Ile Asn Gln Glu Val Pro Thr Gln Lys Pro Ser Pro Tyr Ser
305                 310                 315                 320
Lys Arg Trp Phe Thr Pro Glu Leu Lys Thr Gln Gln Ile Glu Val Asn
                325                 330                 335
Arg Ala Arg Arg Arg Trp Gln Asp Ser Cys Ala Thr Leu Gly Ile Ala
            340                 345                 350
His Leu Thr Thr Ala Ala Leu Phe Gln Asp Met Arg Gln Lys Arg Arg
        355                 360                 365
Glu Trp Thr Arg Thr Val Glu Lys Ala Lys Ala Thr His Trp Lys Gln
    370                 375                 380
Phe Leu Asp Glu Ala Lys Glu Gly Gln Leu Trp Lys Ala Ala Thr Tyr
385                 390                 395                 400
Met Arg Pro Arg Glu Ser Tyr Ala Ser Ile Pro Ser Leu Lys Val Gly
                405                 410                 415
Ala Gly Glu Ile Ser Asp Asn Lys Asp Lys Ala Lys Ala Phe Cys Glu
            420                 425                 430
Ala Phe Phe Pro Lys Lys Ala Glu Pro Glu Glu Glu Asp Ile Ala Pro
        435                 440                 445
Ala Pro Val Glu Ile Pro Trp Glu Pro Ile Thr Lys Glu Glu Ile His
    450                 455                 460
```

```
Arg Ser Leu Lys Ala Ala Lys Gly Thr Thr Ala Pro Gly Glu Asp Glu
465                 470                 475                 480
Ile Pro Thr Leu Val Trp Lys His Leu Trp Lys Tyr Leu Gln Ser Ala
                485                 490                 495
Ile Thr His Ile Phe Arg Lys Ser Val Glu Leu Gly Tyr Tyr Pro Lys
            500                 505                 510
Arg Trp Lys Gln Ala Arg Ile Val Val Leu Arg Lys Pro Gly Lys Pro
        515                 520                 525
Asp Tyr Thr Val Pro Gly Ala Tyr Arg Pro Ile Ser Leu Leu Asn Thr
    530                 535                 540
Leu Gly Lys Ile Leu Glu Ala Val Met Ala Arg Arg Leu Ser Phe Trp
545                 550                 555                 560
Ala Glu Thr Tyr Lys Leu Leu Pro Glu Thr Gln Phe Gly Gly Arg Pro
                565                 570                 575
Gly Arg Asn Thr Glu Gln Ala Leu Leu Val Leu Ala Asn Ala Val Asp
            580                 585                 590
Arg Ala Trp Ser Arg Ser Lys Val Val Thr Leu Val Ala Phe Asp Leu
        595                 600                 605
Lys Gly Ala Phe Asn Gly Val Asn Lys Thr Ser Leu Asp Thr Arg Leu
    610                 615                 620
Gln Ala Lys Cys Ile Pro Thr Thr Ala Arg Val Trp Ile Arg Ser Phe
625                 630                 635                 640
Met Glu Glu Arg His Ala Ser Ile Asn Phe Asp Asp Tyr Gln Thr Asp
                645                 650                 655
Ile Thr Leu Leu Glu Asn Ala Gly Leu Ala Gln Gly Ser Pro Leu Ser
            660                 665                 670
Pro Ile Leu Phe Gly Phe Phe Asn Ser Asp Leu Val Asp Gln Pro Val
        675                 680                 685
Asp Asn Ser Gly Gly Ala Ser Ala Phe Ile Asp Asp Tyr Phe Arg Trp
    690                 695                 700
Arg Val Gly Ala Ser Ala Glu Glu Asn Leu Lys Thr Ile Gln Glu Glu
705                 710                 715                 720
Asp Ile Pro Arg Ile Glu Ala Trp Ala Arg Arg Thr Gly Ser Ser Phe
                725                 730                 735
Ala Ala Glu Lys Thr Glu Leu Ile His Leu Thr Arg Ser Lys Lys Glu
            740                 745                 750
Gln Val Thr Gly Gln Ile Ile Met Asn Gly Lys Val Ile Lys Pro Ser
        755                 760                 765
Ala Ser Ala Lys Leu Leu Gly Val Ile Phe Asp Lys Glu Leu Arg Trp
    770                 775                 780
Lys Glu His Val Gln Gln Ala Ile Lys Arg Ala Thr Lys Val Asn Ile
785                 790                 795                 800
Ala Leu Gly Gly Leu Arg His Leu Arg Pro Glu Gln Met Arg Gln Leu
                805                 810                 815
Tyr Gln Thr Cys Val Thr Pro Val Val Asp Tyr Ala Ser Thr Val Trp
            820                 825                 830
His Asn Pro Leu Arg Asp Lys Thr His Leu Arg Leu Leu Gly Thr Val
        835                 840                 845
Gln Arg Thr Ala Leu Leu Arg Val Leu Ser Ala Phe Arg Thr Val Ser
    850                 855                 860
Thr Leu Ala Leu Glu Val Glu Ser Asn Met Leu Pro Thr Arg Leu Arg
865                 870                 875                 880
Leu Lys Gln Arg Gly Gln Ile Val Ala Ala Ser Leu Ser Thr Leu Pro
                885                 890                 895
Glu Ser His Pro Val His Gly Val Ile Lys Arg Ala Arg Thr Arg Ser
            900                 905                 910
```

```
Thr His Ile Gly Thr Gly Ser Arg Phe Pro Leu Ala Glu Thr Met Arg
        915                 920                 925
Thr Met Asp Leu Ala Arg Leu Gln Ala Leu Glu Lys Ile Asp Pro Thr
    930                 935                 940
Pro Leu Ala Pro Trp Arg Thr Pro Ala Phe Thr Glu Ile Asp Ile Glu
945                 950                 955                 960
Pro Asp Arg Glu Lys Ala Lys Glu Asn Ala Ser Ala Arg Gln Lys Ala
                965                 970                 975
Ala Gly Val Thr Val Phe Ser Asp Ala Ser Gly Gln Gln Asn Gln Leu
            980                 985                 990
Gly Ala Ala Ala Val Ala Leu Asp Gln Asp Gly Asn Ile Thr His Ser
        995                 1000                1005
Arg Gln Ile Ser Val Gly Ser Met Glu Tyr Trp Ser Val Tyr Ala Ala
    1010                1015                1020
Glu Leu Met Ala Ile Tyr Tyr Ala Ile Ser Leu Val Tyr His Ile Ser
1025                1030                1035                1040
Gln Lys Thr Gln Glu Ala Leu Gly Thr Gly Arg Glu Pro Ala Thr Ile
                1045                1050                1055
Leu Thr Asp Ser Met Ser Val Arg Ile Val Gly Leu His His Arg Glu
            1060                1065                1070
Leu Asp Gly Ser Ala Pro Arg Val Tyr Thr
        1075                1080
```

<210> 37414
<211> 134
<212> PRT
<213> A.fumigatus

<400> 37414

```
Lys Val Ile Glu Glu Asn Asp Leu Gly Ser Lys Gly Phe Gln Ile Glu
1               5                   10                  15
Asp Ile Ala Trp Leu Lys Lys Lys Asp His Pro Leu Arg Thr Ser Ala
            20                  25                  30
Ser Leu Gly Ile Trp Leu Asn Thr Pro Glu Ala Ala Glu Tyr Phe Ile
        35                  40                  45
Ala Asn Gly Leu Leu Val Gly Gln Arg Tyr Ile Gly Ser Val Glu Pro
    50                  55                  60
Tyr Arg Ile Asp Trp Lys Arg Cys His Arg Cys Gln Gln Phe Gly His
65                  70                  75                  80
Leu Ala Trp Ala Cys Lys Glu Gln Ala Arg Cys Gly Tyr Cys Ala Asp
                85                  90                  95
Gln His Glu Tyr Arg Asn Cys Pro Arg Glu Met Arg Pro Arg Cys Leu
            100                 105                 110
Asp Cys Asp Gly Glu His Pro Thr Gly Asp Arg Arg Cys Gln Ser Leu
        115                 120                 125
Asn Pro Thr Pro Ser Gln
    130
```

<210> 37415
<211> 149
<212> PRT
<213> A.fumigatus

<400> 37415

```
Val Ser Gly Asn Thr Phe Thr Pro Val Pro Tyr Lys Cys Ile Val Glu
1               5                   10                  15
```

```
Val Arg Ser Gly Phe Leu Ser Thr Leu Thr Leu Asn Glu Pro His Pro
            20                  25                  30
Ser Asn Met Gln Pro Val Lys His Ser Val Met Asp Val Pro Leu Glu
        35                  40                  45
Gly Glu Tyr Val Ser Phe Glu His Ser Leu Met Ala Leu Pro Thr Glu
    50                  55                  60
Leu His Leu Gln Ile Ser Ser Tyr Leu Ser Tyr Pro Asp Ala Leu Ala
65                  70                  75                  80
Leu Lys His Thr Cys Arg His Phe Tyr Tyr Leu Val Tyr Thr Gly Val
                85                  90                  95
His Leu Lys Val Asp Trp Leu Val Glu Arg Phe Glu Arg Lys Leu Glu
            100                 105                 110
Cys Pro Met Glu Lys Cys Ser Phe Arg Thr Asp Glu Ser Phe Cys Asn
        115                 120                 125
Ser Arg Ile Arg Gly Ile Met Glu Arg Arg Arg Arg His Leu Glu Cys
    130                 135                 140
Pro Arg Arg Arg Gly
145
```

<210> 37416
<211> 734
<212> PRT
<213> A.fumigatus

<400> 37416

```
Pro Val Val Leu Thr Val Asn Cys Leu Ser Thr Asp Gly Asn Pro Lys
1               5                   10                  15
Met Thr Leu Cys Gln Cys Leu Ile Ala Pro Ser His Leu Ile Phe Thr
            20                  25                  30
Asp Leu Pro Ser Glu Glu His Tyr Arg Arg Ser Ser Asp Cys Ser Phe
        35                  40                  45
Phe Val Phe Ala Gln Pro Pro Gly Lys Lys Ser Lys Ser Ser Arg Ser
    50                  55                  60
Lys Lys Ser Arg Val Ser Lys Ala Ser Ser Arg Leu Ser Thr Gln Ser
65                  70                  75                  80
Thr Val Ser Glu Ala Pro Met Thr Ala Leu Asp Asn Gln Met Asp Glu
                85                  90                  95
Asp Asp Ile Pro Gln Pro Pro Ala Lys Thr Lys Ala Ser Lys Lys Ala
            100                 105                 110
Ser Lys Ser Lys Ser Lys Thr Leu Lys Ser Lys Lys Asp Asp Thr Leu
        115                 120                 125
Glu Pro Asp Asn Gln Met Glu Val Asp Thr Met Glu Tyr Val Gln Pro
    130                 135                 140
Glu Pro Ala Lys Pro Lys Arg Thr Arg Gly Lys Lys Arg Ser Ser Glu
145                 150                 155                 160
Glu Met Asp Pro Glu Glu Ser Asn Ile Ala Ile Ala Glu Asn Ile His
                165                 170                 175
Gln Ser Glu Pro Pro Thr Lys Lys Arg Ala Thr Lys Ser Arg Ser Ser
            180                 185                 190
Ala Ile Gln Arg Glu Glu Ser Thr Arg Gly Asp Val Ala Ile Ala Glu
        195                 200                 205
Val His Glu Glu Asp Glu Glu Ala Leu Leu Glu Ala Glu Ala Lys Lys
    210                 215                 220
Gly Arg Ala Thr Thr Lys Lys Thr Ser Ser Lys Ser Arg Lys Val Ser
225                 230                 235                 240
Glu Gly Ser Leu Ala Glu Lys Ala Ala Leu Glu Ala Arg Leu Pro Arg
```

```
                245                 250                 255
Asp Ser Glu Leu Asp Ala Ala Ile Val Ala Glu Leu Glu Ala Glu Glu
            260                 265                 270
Pro Met Ala Glu Glu Ser Pro Ala Glu Thr His Lys Ser Ser Lys Lys
        275                 280                 285
Ser Lys Ser Lys Lys Lys Thr Lys Lys Ala Ala Glu Glu Pro Pro Lys
    290                 295                 300
Val Gln His Asp Thr Val Glu Arg Asn Glu Glu Gln Glu Leu Arg Arg
305                 310                 315                 320
Val Asp Asp Asp Glu Phe Ile Tyr Arg Arg Thr Ser Asp Ile Gln Leu
                325                 330                 335
Pro Ala Glu Gln Pro Lys Pro Ala Lys Ser Ala Thr Lys Gln Lys Thr
            340                 345                 350
Ser Lys Glu Glu Arg Leu Ser Glu Lys Lys Thr Pro Glu Ser Pro Arg
        355                 360                 365
Ser Arg Pro Ala Thr Met Val Asp Ser Pro Glu Val Glu Ala Glu Ala
    370                 375                 380
Asp Arg Arg His Gln Arg Ser Leu Val Ser Val Glu Val Thr Ala Arg
385                 390                 395                 400
Asp Pro Glu Gln Asp Phe Glu Pro Glu Arg Arg Asp Ser Gly Ser Gln
                405                 410                 415
Met Lys Lys Ala Thr Lys Lys Ser Ser Thr Ser Lys Ala Lys Lys Thr
            420                 425                 430
Ser His Thr Arg Ala Thr Ser Pro Glu Ser Gly Asn Pro Ala Ser Glu
        435                 440                 445
Arg Pro Asp Thr Arg His Ser Leu Lys Gln Glu Ala Pro Leu Gln Pro
    450                 455                 460
Glu Gln Lys Thr Ile Pro Arg His Ile Gln Asp Gln Val Gln Glu Gln
465                 470                 475                 480
Glu Leu Glu Pro Glu Ser Glu Pro Glu Leu Glu Gln Asp Pro Gln Asp
                485                 490                 495
Asp Ile Glu Gln Asp Arg Glu Val Asp Pro Glu Pro Glu Pro Glu Pro
            500                 505                 510
Glu Pro His Leu Gly Val Asp Glu Thr Pro Val Arg Arg Arg Ser Ser
        515                 520                 525
Lys Val Pro Pro Lys Thr Ala Glu Arg Phe Ser Asp Ile Pro Gln Glu
    530                 535                 540
Lys Gln Phe Ala Lys Ser Ile Ala Glu Thr Arg Thr Pro Asn Ser His
545                 550                 555                 560
Lys Val Pro Gln Ala Ser Ile Asn Ser Ser Arg Gln Glu Ser Asp Ala
                565                 570                 575
Val Ser Pro Leu Pro Ser Thr Ser Lys Ser Ser Pro Ser Ser Ser Pro
            580                 585                 590
Gln Ser Ser Asp Ala Glu Asn Gln Pro Pro Thr Ile Gln Leu Ser Ala
        595                 600                 605
Pro Arg Thr Gln Leu Ala Ser Pro Ser Lys Glu Lys Ala Val Arg Ile
    610                 615                 620
Pro Leu Ala Thr Ser Thr Pro Ser Pro Ser Lys Arg Asn Ala Asn Ser
625                 630                 635                 640
Gly Ala Leu Arg Ser Leu His Pro Trp Thr Pro Ile Asp Ile Asp Glu
                645                 650                 655
Ile Leu Tyr Ala Ser Met Ser Asp Lys Glu Asn Val Asp Val Gly Ala
            660                 665                 670
Ala Leu Glu Ser Ile Lys Gly Asp Leu Thr Ser Pro Glu Lys Lys Met
        675                 680                 685
Thr Val Glu Glu Trp Val Tyr Trp His Ala Arg Asn Gly Glu Glu Lys
```

```
    690                 695                 700
Leu Lys Arg Glu Cys Glu Arg Leu Val Ser Gln Phe Glu Lys Glu Gly
705                 710                 715                 720
Ala Arg Ala Met Arg Ala Leu Glu Gly Ile Glu Cys Ile Asp
                725                 730
```

<210> 37417
<211> 75
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (41)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37417

```
Arg Leu Val Leu Cys Asp Asn Ala Glu Ser Thr Phe Pro Gly Ile Phe
1               5                   10                  15
Leu Leu Leu Asp Pro Val Phe Ser Ile Leu Pro Thr Leu Phe Val Pro
            20                  25                  30
Leu Pro Ser Leu Phe Leu Ser Leu Xaa Gly Leu Leu Phe Leu Pro Leu
        35                  40                  45
Leu Gln Ser Leu Ala Lys Ile Gln Leu Pro Gly Thr Pro Phe Phe Phe
    50                  55                  60
Leu Pro Asp Ser Leu Leu Met Ser Gln Lys Ser
65                  70                  75
```

<210> 37418
<211> 182
<212> PRT
<213> A.fumigatus

<400> 37418

```
Arg Ile Ser Ser Met Ser Met Gly Val Gln Gly Cys Lys Leu Leu Ser
1               5                   10                  15
Ala Pro Glu Phe Ala Phe Arg Leu Asp Gly Glu Gly Val Leu Val Ala
            20                  25                  30
Lys Gly Met Arg Thr Ala Phe Ser Leu Asp Gly Asp Ala Ser Cys Val
        35                  40                  45
Leu Gly Ala Asp Ser Cys Met Val Gly Gly Trp Phe Ser Ala Ser Glu
    50                  55                  60
Asp Trp Gly Asp Glu Asp Gly Glu Leu Phe Glu Val Glu Gly Arg Gly
65                  70                  75                  80
Asp Thr Ala Ser Leu Ser Cys Arg Leu Glu Phe Ile Leu Ala Cys Gly
                85                  90                  95
Thr Leu Trp Glu Phe Gly Val Arg Val Ser Ala Ile Asp Leu Ala Asn
            100                 105                 110
Cys Phe Ser Trp Gly Met Ser Leu Asn Leu Ser Ala Val Phe Gly Gly
        115                 120                 125
Thr Leu Asp Asp Arg Arg Arg Thr Gly Val Ser Ser Thr Pro Arg Cys
    130                 135                 140
Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Thr Ser Leu Ser Cys Ser
145                 150                 155                 160
Met Ser Ser Trp Gly Ser Cys Ser Ser Ser Gly Ser Asp Ser Gly Ser
                165                 170                 175
```

Ser Ser Cys Ser Cys Thr
180

<210> 37419
<211> 75
<212> PRT
<213> A.fumigatus

<400> 37419
Lys Tyr Pro Ser Cys Val Thr Ser Ser His Leu His Asp Leu Leu Val
1 5 10 15
Pro Pro Leu Gln Ser Leu Ser Asn Ser Pro Phe Ile Ile Ser Ser Val
20 25 30
Ser Pro Glu Leu His Phe Met Arg Asp Ser Pro Pro Cys Ser Arg Pro
35 40 45
Arg Tyr Tyr Asn Thr His Pro His Asn Leu Ile Pro Pro Leu Leu Phe
50 55 60
Arg Pro Tyr Glu Tyr Leu Tyr Tyr Phe Leu Pro
65 70 75

<210> 37420
<211> 284
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (248)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37420
Tyr Ala Pro His Gln Pro Leu Pro His Arg Pro Pro Leu Pro His Leu
1 5 10 15
Tyr Cys His His His Tyr Arg Arg Leu His Leu Pro Ser Ser Gln Gln
20 25 30
Ser Pro Thr Leu Arg Asn Leu Thr Ser Ile Ser Val Pro Arg Thr Tyr
35 40 45
Arg Ile Pro Pro Glu Gln Thr Arg Gln Lys Ser Ser His Gln Thr Leu
50 55 60
Leu Thr Met Ser Asp Lys Gly Asn Thr Ala Tyr Gly Pro Pro Ser Ser
65 70 75 80
Asp Thr Ala Phe Arg Lys Thr Trp Asp Arg Glu Glu Tyr Ala Lys Lys
85 90 95
Ala Ala Asp Glu Glu Ala Lys Arg Lys Glu Glu Gly Lys Ala Arg Tyr
100 105 110
Glu Ala Lys Leu Leu Gly Lys Lys Trp His Ala Pro Val Asp Tyr Ser
115 120 125
Ser Leu Glu Ala Thr Thr Ser Arg Lys Gln Arg Leu Asp Val Ala Ser
130 135 140
Met Val Gly Lys Thr Thr Ile Val Pro Ala Gly Ser Ala Val Gly Lys
145 150 155 160
Arg Gly Arg Gly Ala Gly Phe Tyr Cys Ser Asp Cys Asp Leu Thr Phe
165 170 175
Lys Asp Asn Leu Gln Leu Val Glu His Leu Asn Ser Lys Gln His Leu
180 185 190
Ile Ala Thr Gly Gln Ser Gly Glu Val Val Arg Ala Ser Leu Glu Asp

```
        195                 200                 205
Val Arg Gln Arg Leu Arg Phe Leu Ala His Gln Lys Arg Val Arg Glu
    210                 215                 220
Glu Glu Glu Arg Arg Ala Trp Gln Leu Asp Leu Gly Gln Arg Leu Lys
225                 230                 235                 240
Glu Arg Glu Glu Gln Glu Ala Xaa Glu Arg Glu Glu Lys Arg Arg Lys
                245                 250                 255
Arg Asn Glu Lys Arg Arg Lys Asn Gly Glu Asn Gly Ile Lys Gln Glu
            260                 265                 270
Glu Asp Ser Trp Glu Gly Arg Leu Gly Ile Ile Ala
        275                 280
```

<210> 37421
<211> 60
<212> PRT
<213> A.fumigatus

<400> 37421

```
Arg Gln Pro Ser Ser Ser Pro Ser Val Pro His Val Tyr Ile Tyr Asp
1               5                   10                  15
Lys Thr Gly Gln Phe Asn Asn Cys Ser His Tyr Gln Gln Leu Lys Gln
            20                  25                  30
Asn Leu Ala Lys Met Val Lys Asp Lys Ser Thr Val Ile Glu Tyr Val
        35                  40                  45
Arg Leu Pro Pro Leu Tyr Gln Ile Ala Asn Pro Ile
    50                  55                  60
```

<210> 37422
<211> 187
<212> PRT
<213> A.fumigatus

<400> 37422

```
Tyr Thr Met Gly Lys Ser Arg Pro His Lys Lys Lys Ala Ser Lys Ser
1               5                   10                  15
Arg Glu Lys Ser Val Leu Arg Ala Gly Gly Ser Val Ser Lys Gln Lys
            20                  25                  30
Met Ala Asp Pro Ala Ile Leu Leu Glu Gln Ala Val Val Leu Leu Gln
        35                  40                  45
Thr Gly Gln Ala Asp Ala Ala Leu Ala Ala Ala Gln Gln Ala Phe Asn
    50                  55                  60
Ser Ala Pro Thr Asn Ser Pro Ala Gln Leu Ser Ala Leu Asn Thr Ile
65                  70                  75                  80
Gly Glu Ile Tyr Val Glu Leu Gly Asp Ile Asn Ala Ala Arg Glu Cys
                85                  90                  95
Phe Leu Arg Ala Val Glu Leu Asp Pro Asn Gly Thr Ile Pro Glu Ser
            100                 105                 110
Glu Gly Gly Gly Ala Glu Lys Phe Leu Trp Leu Ala Gln Leu Ser Glu
        115                 120                 125
Val Gly Gly Lys Asp Ser Val Gln Trp Phe Glu Lys Gly Val Ser Ala
    130                 135                 140
Leu Arg Thr Ile Ile Gln Gln Leu Glu Glu Lys Gln Asp Pro Gln Thr
145                 150                 155                 160
Ala Ala Glu Leu Ala Glu Lys Lys Lys Lys Met Ala Asn Ala Leu Cys
                165                 170                 175
Gly Val Ala Glu Ile Tyr Met Thr Asp Leu Ser
```

180 185

<210> 37423
<211> 231
<212> PRT
<213> A.fumigatus

<400> 37423
His Phe Thr Glu Thr Tyr Ser Trp Trp Ser Asn Leu Thr Val Ser Ser
1 5 10 15
Trp Glu Glu Asp Ala Glu Asn Gln Cys Glu Ser Leu Ile Thr Glu Ala
20 25 30
Leu Leu Val Asp Pro Gln Ala Pro Glu Val Leu Gln Thr Leu Ala Ser
35 40 45
Ile Arg Ile Ser Gln Leu Arg Gln Asp Asp Ala Arg Ala Ala Leu Ser
50 55 60
Arg Ser Leu Glu Leu Trp Lys Asp Leu Pro Pro Glu Asp Pro Lys Val
65 70 75 80
Pro Glu Phe Ala Thr Arg Val Ser Leu Ala Arg Leu Leu Met Glu Val
85 90 95
Ala Met Glu Leu Glu Ala Leu Glu Val Leu Glu Arg Leu Ile Leu Glu
100 105 110
Asp Asp Gln Ser Val Glu Ala Trp Tyr Leu Gly Gly Trp Cys Leu Tyr
115 120 125
Leu Leu Ala Glu Lys Arg Gln Ala Pro Lys Asp Ala Glu Ala Asp Ala
130 135 140
Ser Pro Glu Ser Gln Arg Gln Ala Ser Leu Val Ala Ser Arg Glu Trp
145 150 155 160
Leu Lys Gln Ser Leu Thr Leu Tyr Asp Leu Val Gln Tyr Glu Asp Glu
165 170 175
Arg Leu Lys Glu His Ala Leu Glu Leu Val Asp Glu Met Asn Lys Glu
180 185 190
Leu Gly Glu Asp Met Glu Asp Asp Ser Asn Ala Glu Asp Ala Glu Gly
195 200 205
Glu Glu Gly Glu Gly Asp Trp Glu Asp Glu Ile Glu Asp Glu Ser Asp
210 215 220
Glu Asp His Glu Met Ala Asp
225 230

<210> 37424
<211> 216
<212> PRT
<213> A.fumigatus

<400> 37424
Arg Ser Asp Ile Ser Asp Thr Ala Tyr Arg Ile Ser Ile Asn Leu Glu
1 5 10 15
Thr Pro Glu Asn Asp Ala Arg Gly Glu Glu Glu Thr Glu Gln Pro Ala
20 25 30
Leu Ile Leu Gln Val Ser Tyr Pro Pro Glu Tyr Pro Asp Val Ala Pro
35 40 45
Asp Leu Glu Ile Ser Ser Pro Pro Asn Ala Pro Lys His Pro Leu Leu
50 55 60
Asp Ile Gln Glu Asp Arg Glu Arg Leu Leu Glu Ala Leu Gln Pro Thr
65 70 75 80
Ile Glu Glu Asn Leu Gly Met Ala Met Val Phe Thr Leu Val Ser Thr

```
                85                  90                  95
Leu Lys Glu Ser Ala Glu Leu Leu Met Ala Glu Arg Ala Asn Ala Val
            100                 105                 110
Gln Ala Ala Lys Glu Met Glu Ala Ala Lys Ala Glu Glu Glu Glu Asn
        115                 120                 125
Arg Lys Phe Gln Gly Thr Ala Val Thr Pro Glu Thr Phe Leu Glu Trp
    130                 135                 140
Arg Glu Arg Phe Arg Lys Glu Met Glu Glu Lys Glu Gln Arg Glu Arg
145                 150                 155                 160
Glu Glu Lys Glu Ala Asp Glu Lys Arg Ala Lys Lys Ala Pro Val Lys
                165                 170                 175
Glu Glu Lys Lys Leu Thr Gly Lys Gln Leu Trp Glu Arg Gly Leu Ala
            180                 185                 190
Gly Lys Ala Asp Tyr Asp Glu Asp Asp Glu Asp Ala Ile Pro Ala Ala
        195                 200                 205
Val Glu Lys Ile Lys Ile Thr Ala
    210                 215
```

<210> 37425
<211> 95
<212> PRT
<213> A.fumigatus

```
<400> 37425
Gln Ala Leu Ala Gly Phe Leu Met Leu Met Pro Arg Cys Leu Tyr Ser
1               5                   10                  15
Leu Ile Ser Phe Thr Gln Val Leu Thr Ala His Leu Asp Ser Glu Leu
            20                  25                  30
Gly Val Phe Leu Leu Leu Leu Leu Leu Leu Arg Gly Leu Leu Gln Asp
        35                  40                  45
Leu Lys Asp Phe Phe His Val Phe Ile Asp Pro Ser Val Asn Ile Val
    50                  55                  60
Phe Phe Leu Ser Val Thr Ile Pro Glu Ile Ser Glu Ala Val Leu Tyr
65                  70                  75                  80
Ser Arg Pro Ser Cys Ile Asp Gly Tyr Leu Gly His Asp Ile Gly
                85                  90                  95
```

<210> 37426
<211> 70
<212> PRT
<213> A.fumigatus

```
<400> 37426
Glu Ala Gly Ser Ile Pro Thr Gly Arg Phe Gly Val Phe Pro Leu Trp
1               5                   10                  15
Val Asp Arg Leu Ala Asn Ser Leu Tyr Val Glu Pro His His Val Ala
            20                  25                  30
Ile Cys Ser Gln Gln Pro Lys Gly Ser Phe Ser Ile Gly His Asp Lys
        35                  40                  45
Ile Val Val Gln Met Gly Leu Val Thr Ala Tyr Ser Ile Gly Leu Arg
    50                  55                  60
Pro Thr Gln Thr Gly Lys
65                  70
```

<210> 37427
<211> 426

<212> PRT
<213> A.fumigatus

<400> 37427

```
Arg Pro Thr Ser Pro Thr Asp Asp Lys Thr Asp Val Pro Cys Cys Thr
1               5                  10                  15
Ser Phe Val Pro Asp Thr Pro Thr Cys Leu Gly Ser Ala Ala Ala Pro
            20                  25                  30
Pro Phe Asn Glu Gly His Asp Leu Gln Pro Asp Thr Cys Thr Gly Ala
        35                  40                  45
Ala Ser Pro Ala Arg Val Gly Ser Thr His Leu Leu His Ser Leu His
    50                  55                  60
Asp Leu Ala Glu Glu His Leu Asp Asn Pro Arg His Pro Asp Val His
65                  70                  75                  80
Tyr Pro Glu Thr Pro Asp Cys Val Gly Ala Leu Gly Pro Asp Thr Val
                85                  90                  95
Pro Met Asp Cys Val Ile Asn Leu Asp Glu Leu Glu Ser Cys Pro Pro
            100                 105                 110
Val Ser Ser Pro Pro Glu Phe Asn Met Asp Val Gln Asp Pro Leu Gln
        115                 120                 125
His Pro Gly Val Glu Pro Lys Asp Leu Glu Val Leu Leu Ala Ala Val
    130                 135                 140
Pro Ser Asp Gly Leu Gly Pro Asp Val Gln Phe Gln Thr Arg Gln Glu
145                 150                 155                 160
Leu Gly Val Asn Arg Asp Gly Asn Ser Val Val Pro Val His Ala Thr
                165                 170                 175
Gly Val Arg Ser Lys Asp Pro His Val Ala Pro Asn Ser Pro Asn Ser
            180                 185                 190
Leu Gly Phe Arg Pro Cys Pro Glu Gly Tyr Leu Glu Phe Ser His Val
        195                 200                 205
Glu Ile Arg Asn His Arg Pro Leu Glu Asn Thr Thr Ser Ser Ile Glu
    210                 215                 220
Thr Leu Glu Asn Val Thr Ser Pro Ser Ser Ser Cys Cys His Ser Lys
225                 230                 235                 240
Glu Thr Ser Arg Thr Trp Cys Leu Asp Gly Ser Ile Leu Ser Ile Asp
                245                 250                 255
Ile Gln Asn Ala Asp Phe Pro Ile Gly Leu Gly Lys Ser Ser Phe His
            260                 265                 270
Val Phe Glu Asn Gln Val Ile Gln Ile Leu Thr Val Val His Gly Pro
        275                 280                 285
Val Glu Ala Phe Leu Ser Gln Lys Thr Ala Pro Ser Thr Lys Val Asn
    290                 295                 300
Lys Lys Lys Arg Lys Phe Ser Arg Pro Ala Ala Ala Ala Ala Ala Ala
305                 310                 315                 320
Ala Pro Leu Ser Ser Glu Gln Lys Gln Tyr Leu Leu Glu Leu Arg Asp
                325                 330                 335
Gln Gly His Thr Trp Asn Asp Ile Val Ala Lys Phe Pro Gly Arg Lys
            340                 345                 350
Ile Gly Thr Leu Gln Ala Ile Tyr Tyr Ala Lys Val Lys Asn Leu Arg
        355                 360                 365
Asn Pro Thr Ser Arg Asp Gln Arg Tyr Thr Gly Arg Pro Lys Ser Ala
    370                 375                 380
Ala Arg Ser Ser Gln Gly Leu Ser Arg Thr Arg Gly Asn Thr Ile Gly
385                 390                 395                 400
Thr Gly Val Ser Thr Val Cys Gln Thr Glu Asn Glu Val Gly Tyr Ser
                405                 410                 415
```

```
Arg Tyr Ser Leu Arg Pro Arg Gly Val Arg
            420                 425

<210> 37428
<211> 77
<212> PRT
<213> A.fumigatus

<400> 37428
Asp Leu Pro Cys Tyr Ser Ser Ala Asn Ser Leu Leu Tyr Val Ser Val
1               5                  10                  15
Gln Ser Ile Val Ile Lys Gly Thr Arg Ser Ala Asp Asn Gly Leu Ser
            20                  25                  30
Asn Pro Ala Asn Tyr His His Ile Arg Ile Thr His Ile Glu Ser Leu
        35                  40                  45
Leu Arg Leu Ala Val Met Thr Ser Pro Lys Gln Trp Gly Cys Asn Gln
    50                  55                  60
Leu Leu Lys Trp Thr Leu Pro Trp Gly Asn Gly Asn Glu
65                  70                  75

<210> 37429
<211> 104
<212> PRT
<213> A.fumigatus

<400> 37429
Thr Pro Phe Leu Leu Phe Lys Ala Cys Cys Ala Leu Ser Ser Leu Ser
1               5                  10                  15
Cys Leu Pro Cys Glu Trp Ser Asn Arg Asp Thr Met Glu Ala Ile Asn
            20                  25                  30
Ala Asn Pro Pro Pro Tyr Arg Thr Glu Lys Val Glu Glu Thr Lys Tyr
        35                  40                  45
Thr Ser Asp Tyr Glu Glu Glu Gly Gln Leu Lys Thr Gly Gln Val Ala
    50                  55                  60
Asp Ala Phe Gly Asn Glu Glu Ser Ala Glu Ile Lys Tyr Lys Thr Leu
65                  70                  75                  80
Lys Trp Trp Tyr Val Leu Glu Ile Leu Ile Ser Gly Leu Gly Ser Leu
                85                  90                  95
Leu Thr Ile Ala Phe Leu Leu Leu
            100

<210> 37430
<211> 97
<212> PRT
<213> A.fumigatus

<400> 37430
His Ala Arg Arg Ala Val Ile Leu Ile Val Gly Leu Gly Leu Leu Ala
1               5                  10                  15
Thr Tyr Thr Gly Tyr Asn Ile Gly Leu Phe Arg Glu Arg Tyr Pro Arg
            20                  25                  30
Ile Gln Asn Leu Gly Asp Ala Gly Glu Ile Leu Met Gly Pro Ile Gly
        35                  40                  45
Arg Glu Ile Phe Gly Leu Gly Gln Phe Leu Phe Phe Ile Phe Val Met
    50                  55                  60
Gly Ser His Ile Leu Thr Phe Arg Val Met Met Asn Thr Val Thr Glu
```

65 70 75 80
His Gly Thr Cys Ser Ile Val Phe Ser Val Val Gly Met Leu Ile Cys
85 90 95
Met

<210> 37431
<211> 65
<212> PRT
<213> A.fumigatus

<400> 37431
Ala Ile Pro Lys Leu Leu Tyr Pro Leu Leu Ser Ala Asp Leu His Phe
1 5 10 15
Val Tyr Trp Ser Gly Gln Leu Phe Met Ala Thr Arg His Ser Ser Phe
20 25 30
Leu Thr Ala Arg Arg Leu Ala Ala Val Ile Leu Ser Val Lys Leu Pro
35 40 45
Phe Ser Gln Gly Arg Thr Val Glu Met Pro Ser Val Gly Leu Val Asn
50 55 60
Ser
65

<210> 37432
<211> 139
<212> PRT
<213> A.fumigatus

<400> 37432
Pro Thr Leu Ala Phe Leu Ser Ile Phe Ser Ala Val Met Ile Thr Met
1 5 10 15
Ile Gly Val Ala Val Gln Phe Lys Gly Gly Ser Asn Ile Ser Val Thr
20 25 30
Ala Glu Thr Asn Leu Tyr His Ala Phe Thr Gly Val Thr Asn Ile Val
35 40 45
Phe Ala Tyr Cys Ala His Val Ala Phe Phe Gly Leu Ile Ala Glu Met
50 55 60
Glu Asp Pro Lys Glu Phe Pro Lys Ala Leu Cys Met Leu Gln Phe Phe
65 70 75 80
Glu Ile Ala Leu Tyr Val Thr Ala Ala Ile Val Ile Tyr Tyr His Val
85 90 95
Gly Asn Asp Val Val Ser Pro Ala Leu Gly Ser Ala Gly Pro Leu Leu
100 105 110
Lys Lys Val Ala Tyr Gly Ile Ala Ile Pro Thr Val Cys Thr Asn Leu
115 120 125
Thr Ser Ser Ser Ala Val Gln Thr Leu Thr Val
130 135

<210> 37433
<211> 74
<212> PRT
<213> A.fumigatus

<400> 37433
Ile Val Gly Ala Gly Val Val Asn Gly His Val Gly Leu Lys Tyr Ile
1 5 10 15

```
Tyr Val Arg Ile Phe Arg Lys Thr Asn Arg Met His Lys Arg Asp Leu
            20                  25                  30
Val Ser Val Gly Ser Trp Ile Ala Ile Gly Leu Ser Cys Trp Ile Ile
        35                  40                  45
Ala Trp Ile Ile Ala Glu Gly Phe Pro Ser Val Asn Tyr Tyr Gly Lys
    50                  55                  60
Leu Lys Trp Tyr Gly Ile Lys Leu Gly Val
65                  70
```

<210> 37434
<211> 193
<212> PRT
<213> A.fumigatus

<400> 37434

```
Ser Thr Arg Thr Ala Ser His Thr Thr Ser Gly Arg Ser Pro Ser Ser
1               5                   10                  15
Ser Thr Gly Ser Arg Met Ala Cys Gly Ser Ser Ser Ser Pro Cys Thr
            20                  25                  30
Pro Ala Ala Ser Ser Ser Gly Pro Ala Thr Leu Thr Thr Arg Asp Pro
        35                  40                  45
Leu His Pro Ser Ala Thr Cys Gln Cys Thr Lys Ser Ala Ser Ser Leu
    50                  55                  60
Arg Asp Ser Pro Arg Ser Phe Cys Ala Ala Ser Ala Lys Pro Ser Lys
65                  70                  75                  80
Lys Ser Tyr Thr Ser Arg Lys His Pro Ser Ser Ala Pro Ser Ser Pro
                85                  90                  95
Gly Ala Ser Ala Ser Ser Lys Arg Cys Ala Thr Pro Ala Ala Pro Thr
            100                 105                 110
Ser Ser Ala Thr Thr Ser Pro Pro Thr Arg Gln Cys Gln Cys Thr Thr
        115                 120                 125
Thr Ala Cys Ser Ser Ser Lys Arg Arg Gln Thr Pro Ser Gln Gly Arg
    130                 135                 140
Leu Ser Ala Ser Lys Ser Pro Arg Asp Thr Ser Ser Ser Pro Ala Arg
145                 150                 155                 160
Pro Pro Arg Pro Arg Ala Ala Gly Thr Pro Ser Ser Pro Ala Pro Gly
                165                 170                 175
Ser Ser Ser Ala Thr Cys Leu Cys Arg Gly Pro Pro Ser Gly Cys Arg
            180                 185                 190
Arg
```

<210> 37435
<211> 392
<212> PRT
<213> A.fumigatus

<400> 37435

```
Gln Ser Ser Tyr Ile Pro Pro Lys Trp Leu Glu Gln Tyr Arg Pro Gly
1               5                   10                  15
Lys Asn Val Ala Ala Ala Ile Lys Ala Asn Arg Ala Asp Tyr Val Arg
            20                  25                  30
Leu Ser Ile His Glu Ser Asn Gly Ala Arg Lys Leu Ser Ile Ser Leu
        35                  40                  45
Val Pro Gln Val Arg Gly Val Leu Gly Tyr Thr Pro Trp His Ser Ser
    50                  55                  60
```

```
Ile Ala Val Asp Ala Asp Gly Thr Leu Arg Ala Val His Ala Glu Asp
65                  70                  75                  80
Val Arg Glu Thr His Glu Leu Val Tyr Lys Asn Gly Gln Pro Tyr Tyr
                85                  90                  95
Phe Arg Glu Lys Ser Lys Leu Phe Asp Trp Val Glu Asp Gly Leu Arg
            100                 105                 110
Val Lys Phe Glu Pro Leu Tyr Pro Cys Gly Leu Ile Ile Arg Pro Ser
        115                 120                 125
Asp Ile Asp Asp Ser Arg Pro Pro Pro Ser Ile Ser His Leu Pro Met
    130                 135                 140
His Lys Val Arg Gln Leu Ser Thr Gly Leu Ser Pro Val Val Leu Arg
145                 150                 155                 160
Gly Phe Arg Glu Thr Leu Lys Glu Glu Leu Tyr Val Gln Lys Ala Ser
                165                 170                 175
Glu Leu Gly Thr Ile Leu Pro Trp Ser Phe Gly Ile Ile Gln Lys Val
            180                 185                 190
Arg Asp Ala Gly Arg Thr Asp Lys Leu Gly Asn Asn Val Thr Ser Asn
        195                 200                 205
Glu Ala Met Pro Met His Tyr Asp Gly Met Phe Lys Phe Glu Glu Glu
    210                 215                 220
Thr Asp Ser Val Thr Gly Glu Val Lys Arg Val Gln Lys Pro Pro Gly
225                 230                 235                 240
Tyr Gln Phe Phe Thr Cys Pro Ala Thr Ala Pro Lys Gly Ser Gly Tyr
                245                 250                 255
Thr Leu Phe Ala Ser Ser Arg Leu Phe Phe Arg Tyr Leu Pro Leu Pro
            260                 265                 270
Trp Thr Thr Glu Arg Leu Gln Lys Val Thr Trp Gly Met Asp Asn Asp
        275                 280                 285
Gly Phe Trp Asp Ala Lys Leu Lys Asn Leu Pro Leu Val Val Pro His
    290                 295                 300
Pro Val Thr Gly Leu Pro Cys Met Arg Trp His Gln Pro Trp Asp Ser
305                 310                 315                 320
Thr Lys Thr Lys Phe Ser Thr Cys Ala Val Thr Ile Glu Asn Asp Glu
                325                 330                 335
Gln Glu Leu Ala Ser Val Val Asp Asp Leu Thr Tyr Asp Tyr Arg Val
            340                 345                 350
Cys Leu Arg Phe Ser Trp Glu Gln Gly Asp Leu Leu Val Ser Asp Asn
        355                 360                 365
Thr Ala Met Leu His Thr Arg Thr Gly Tyr Lys Thr Asn Cys Glu Arg
    370                 375                 380
Glu Leu Trp Arg Ile His Phe Asp
385                 390
```

<210> 37436
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37436

```
Gly Lys Gly Arg His Val Arg Ala Arg Cys Arg Ala His Arg Ala Gln
1               5                   10                  15
Gly Val Thr Val Ser Gln Ala Val Leu Asn Ile Ser Arg His Asp Tyr
            20                  25                  30
Ser Pro Gly Pro Thr Tyr Val Ala Val Tyr Tyr Gly Asp Asn Ala Lys
        35                  40                  45
Thr Tyr Val Phe Cys Pro Glu Asn Ser Ser Thr Ser Ala
```

```
    50                  55                  60

<210> 37437
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37437
Ser Thr Gln Leu Trp Val Trp Ile Val Gly Ser Lys Gly Ala Asn Trp
1               5                  10                  15
Asp Ala Arg Asp Ser Gly Asn Ser Ser Leu Ser Gln Pro Met Glu Cys
            20                  25                  30
Asp Glu Lys Ile Glu Val Ile Ala Glu Thr Asn Gly Arg Tyr Ile Val
        35                  40                  45
Val Ile Ser Glu Leu Met Ser Ile Leu Ser Ala Arg Ile
    50                  55                  60

<210> 37438
<211> 413
<212> PRT
<213> A.fumigatus

<400> 37438
Arg His Phe Lys Asn Leu Lys Arg Arg Arg Arg Ser Phe Met Met Ser
1               5                  10                  15
Pro Gly Ser Ile Leu Lys Leu Leu Met Val Leu Ile Ser Ser Gly Ser
            20                  25                  30
Ile Leu Leu Ser Lys Val Trp Val Ala Arg Trp Thr Asn Asn His Thr
        35                  40                  45
Gly Met Leu Ser His Gln Ile Glu Phe Ser Lys Ala Met Thr Glu Leu
    50                  55                  60
Tyr Lys Pro Ile Ser Gly Arg Ala Ser Asp Pro Ser Thr Tyr Thr Ile
65                  70                  75                  80
Glu Gly Asn Pro Glu Gly Ile Arg Ala Cys Glu Glu Tyr Glu Ala Ile
                85                  90                  95
Val Arg Asp Leu Gln Glu Ser Leu Ala Pro Glu Leu Glu Leu Ile Glu
            100                 105                 110
Thr Arg Ile Val Ser Pro Ala Asn Gln Leu Leu Glu Val Ile Lys Val
        115                 120                 125
Ile Arg Lys Val Ala Val Lys Arg Asp His Lys Lys Leu Asp Tyr Asp
    130                 135                 140
Arg His Arg Asn Thr Leu Lys Lys Leu Gln Glu Lys Lys Asp Lys Ser
145                 150                 155                 160
Leu Lys Asp Glu Lys Ala Leu Tyr Lys Ala Glu Asn Asp Val Glu Gln
                165                 170                 175
Ala Thr Gln Glu Tyr Asn Tyr Tyr Asn Asp Leu Leu Lys Asp Glu Leu
            180                 185                 190
Pro Lys Leu Phe Ala Leu Glu Ala Glu Phe Ile Arg Pro Leu Phe Gln
        195                 200                 205
Ser Phe Tyr Tyr Met Gln Leu Asn Val Phe Tyr Thr Leu His Glu Lys
    210                 215                 220
Met Gln Gly Met Asn Ile Ser Tyr Phe Asp Leu Thr Leu Asp Val Glu
225                 230                 235                 240
Glu Ala Phe Glu Lys Lys Arg Gly Asp Val Lys Glu Arg Ala Glu Ala
                245                 250                 255
Leu Thr Ile Val His Phe Lys Thr Lys Gly Leu Gly Arg Gln Pro Ser
```

```
            260                 265                 270
Lys Phe Thr Pro Pro Gly Lys Asp Lys Met Ala Tyr Glu Ser Lys Ser
        275                 280                 285
Thr Phe Ala Arg Thr Asn Arg Ala Asp Glu Thr Asp Asn Pro Pro Pro
    290                 295                 300
Pro Tyr Ser Ala Ser Ala Ser Thr Val Ala Ala Ala Lys Ala Lys Pro
305                 310                 315                 320
Ala Pro Pro Pro Pro Arg Pro Lys Pro Ala Arg Leu Gly Ala Ala Val
                325                 330                 335
Glu Thr Val Thr Ala Leu Tyr Asp Tyr Glu Ala Gln Ala His Gly Asp
            340                 345                 350
Leu Ser Phe Ser Ala Gly Asp Val Ile Glu Ile Ile Gln Arg Thr Asp
        355                 360                 365
Asn Gln Asn Glu Trp Trp Thr Gly Arg Val Asp Gly Arg Glu Gly Gln
    370                 375                 380
Phe Pro Gly Gln Phe Tyr Ser Arg Val Leu Leu Ser Ile Leu Lys Thr
385                 390                 395                 400
Asn Leu Leu Phe Thr Ala Ala Asn Tyr Val Gln Leu His
                405                 410
```

Sequence Listing

<210> 37439
<211> 119
<212> PRT
<213> A.fumigatus

<400> 37439

```
Gln Ala Ala Arg Gln Ser Leu Asn Phe Asn Phe Thr Leu Pro Thr Lys
1               5                   10                  15
Thr Ala Asn Leu Asp Asn Ile Ser Pro Pro Pro Arg Ser Leu Ile Pro
            20                  25                  30
Glu Val Ile Thr Ala Leu Pro Pro Ser Val Leu Met Glu Leu Ile Ile
        35                  40                  45
Pro Ser Gln Arg Ser Ala Leu Ala Ser Gln Phe Lys Ala Gly Ser Thr
    50                  55                  60
Pro Ala Trp Tyr Ala Ser Leu Pro Ser Asp Val Gln Ser Tyr Leu Ser
65                  70                  75                  80
Val Val Lys Ser Gln Ile Ser Glu Gly Ala Leu Thr Ala Thr Thr Gly
                85                  90                  95
Leu Ala Tyr Gln Thr Ala Ala Thr Ala Ser Gly Pro Ser Pro Arg Gly
            100                 105                 110
Trp Lys Glu Pro Asn Leu Arg
        115
```

<210> 37440
<211> 126
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (15)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37440

```
His His Ser Leu Glu Gly Ile Gln Asp Thr Phe Met Asp Phe Xaa Gly
1               5                   10                  15
```

```
Asp Ser Glu Phe Gly Phe Gly Ser Met Asp Glu Phe Ile Asn Pro Glu
            20                  25                  30
Met Phe Ala Asn Ala Gln Ser Glu Asp Thr Pro Asp Ser Val Glu Thr
        35                  40                  45
Gly Val Ala Thr Gln Thr Pro Lys Asp Ser Glu Val Pro Lys Ile Gln
    50                  55                  60
Asp Ala Ser Gly Lys Phe Asp Val Ser Asp Asp Ser Trp Ile Pro Met
65                  70                  75                  80
Asp Trp Ile Asn Val Pro Ser Arg Phe Glu Asp Ala Leu Val Val Asn
                85                  90                  95
Asp Ser Trp Glu Asn Phe Asp Trp Gly Thr Val Glu Leu Asn Asn Gly
            100                 105                 110
Ala Met Thr Val Asp Asp Asn Gly Ile Ala Ile Tyr Ala Met
        115                 120                 125

<210> 37441
<211> 367
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (359)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37441
Lys Asp Met Gln Cys Val Arg Asn Cys Asp Ser Pro Asp Pro Lys Tyr
1               5                   10                  15
Arg Gln Thr Phe Glu Gln Pro Val Val Gln Thr Trp Val Ser Pro Pro
            20                  25                  30
Val Ser Thr Met Leu His Asn Gln Met Leu Met Gln Cys Arg Thr Asp
        35                  40                  45
Asp Ser Val Gln Met Phe Val Gly Glu Met Gly Cys Trp Leu Val Ile
    50                  55                  60
Trp Ala Ser His Ile Tyr Gln Ser Phe Ile Tyr Pro Arg Leu Ser Pro
65                  70                  75                  80
Asn Ser Ser Pro Leu Leu Ala Gly Gly Tyr Asn Pro Val His Pro Asp
                85                  90                  95
Asp Ile Gly Asp Glu Glu Asp His Thr Ile Asp Gly Pro Asp Ala Ser
            100                 105                 110
Asn His Thr Leu Lys Arg Thr Asp Ala Glu Gly Arg Pro Tyr Leu Ser
        115                 120                 125
Gly Arg Arg Ile Leu Leu Leu Ala Ala Pro Ala Cys Cys Asp Ile Ala
    130                 135                 140
Gly Thr Thr Leu Met Asn Val Gly Leu Leu Phe Val Ala Ala Ser Ile
145                 150                 155                 160
Tyr Gln Met Thr Arg Gly Ala Leu Val Leu Phe Val Gly Leu Phe Ser
                165                 170                 175
Val Leu Phe Leu Arg Arg Lys Leu Phe Leu Tyr Gln Trp Ile Ala Leu
            180                 185                 190
Phe Val Val Val Leu Gly Val Ala Leu Val Gly Leu Ala Gly Ala Leu
        195                 200                 205
Phe Gly Gln Gly His Gly His Asp Met Ser Arg Asp Asp Thr Leu Ala
    210                 215                 220
Ile Ala Thr Arg Ala Val Met Glu Ala Arg Glu Ile Ala Lys Thr Pro
225                 230                 235                 240
```

```
Glu Ala Leu Lys Ala Val Ile Gly Val Leu Leu Ile Ala Ala Ala Gln
                245                 250                 255
Val Phe Thr Ala Ser Gln Phe Val Leu Glu Glu Trp Ile Leu Glu Asn
            260                 265                 270
Tyr Ala Met Asp Pro Leu Gln Val Val Gly Trp Glu Gly Ile Phe Gly
        275                 280                 285
Phe Ser Ile Thr Val Ile Ala Ser Ile Ile Leu Tyr Leu Thr Val Gly
    290                 295                 300
Arg Thr Glu Ala Gly Arg Tyr Gly Tyr Phe Asp Ala Lys Glu Ala Cys
305                 310                 315                 320
Arg Gln Phe Ser Ser Asn Lys Tyr Ile Ala Met Ala Ser Ile Leu Ile
                325                 330                 335
Met Ile Ser Ile Gly Phe Val Ile Pro His Ser Ile Ser Leu Pro Phe
            340                 345                 350
Ser Leu Ser Leu Ser Ala Xaa Cys Lys Phe Pro Ser Thr Arg Gly
        355                 360                 365
```

<210> 37442
<211> 121
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (16)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37442

```
Phe Arg Thr Ala Ser Leu Ser Pro Ser Leu Phe Leu Ser Leu Arg Xaa
1               5                   10                  15
Ala Asn Phe Arg Val Gln Glu Ala Asn Leu Leu Leu Ser His Arg Gly
            20                  25                  30
Phe Asn Phe Phe Gly Leu Ser Val Thr Arg Thr Val Ser Ala Thr Ser
        35                  40                  45
Arg Ser Thr Ile Asp Thr Cys Arg Thr Leu Phe Ile Trp Leu Val Ser
    50                  55                  60
Leu Ala Leu Gly Trp Glu Thr Phe Lys Trp Leu Gln Val Leu Gly Phe
65                  70                  75                  80
Ala Leu Leu Val Tyr Gly Thr Phe Leu Phe Asn Asp Ile Ile Arg Pro
                85                  90                  95
Pro Leu Lys Ala Cys Leu Pro Arg Asp Arg Gln Glu Arg Gln Ile Leu
            100                 105                 110
Leu Pro Glu Glu Pro Ile Glu His Ile
        115                 120
```

<210> 37443
<211> 118
<212> PRT
<213> A.fumigatus

<400> 37443

```
Asn Arg Gln Trp Thr Glu Leu Ala Ala Lys Ala Leu Ala Val Phe Gly
1               5                   10                  15
Cys Ile Phe Leu Leu Thr Leu Thr Ser Glu Glu Phe Ile Val Pro Val
            20                  25                  30
Leu Ser Glu Ala Ser Ala Gln Leu Pro Leu Val His Gly Ala Pro Asp
```

```
        35                  40                  45
Lys Ala Leu Ile Leu Ala Glu Thr Ile Ser Met Leu Leu Phe Pro Phe
    50                  55                  60
Met Ile Thr Phe Leu Leu Val Phe Leu Val Ile Phe Glu Tyr Val Leu
65                  70                  75                  80
Gly Ala Phe Ala Glu Ile Thr Arg Phe Ala Asp Arg Gln Phe Tyr Ser
                85                  90                  95
Asp Trp Trp Asn Ser Ser Asp Trp Tyr Val Phe Ile His Phe Phe Arg
            100                 105                 110
Ala Ser Ser Asn Ala Ile
        115
```

<210> 37444
<211> 107
<212> PRT
<213> A.fumigatus

<400> 37444

```
Arg Asn Leu Thr Gly Thr Leu Tyr Arg Leu Glu Phe Ser Arg Glu Trp
1               5                   10                  15
Asn Ile Pro Val His His Phe Leu Arg Arg His Val Tyr Phe Pro Ser
            20                  25                  30
Leu Ser Tyr Phe Ser Gln Pro Val Ala Met Phe Ile Thr Phe Leu Val
        35                  40                  45
Ser Ser Val Phe His Glu Leu Val Met Ser Cys Ile Thr Lys Lys Leu
    50                  55                  60
Arg Gly Tyr Gly Phe Leu Ala Met Met Leu Gln Met Pro Ile Val Ala
65                  70                  75                  80
Val Gln Arg Ser Arg Phe Leu Arg Gly Lys Arg Thr Leu Asn Val Arg
                85                  90                  95
Leu Leu Ser Phe Leu Ile Met Gly Ser Ala His
            100                 105
```

<210> 37445
<211> 422
<212> PRT
<213> A.fumigatus

<400> 37445

```
Arg Asp Arg Asn Gly Val Pro His Val Val Leu Pro Ala Trp Gln Asp
1               5                   10                  15
Cys Tyr Glu Asn Ala Ala Arg Ala Glu Trp Leu Gly Ile Gly Val Tyr
            20                  25                  30
Gly Asn Lys Ser Arg Ala Pro Asn Ile Asp Ala Lys Glu Leu Ser Lys
        35                  40                  45
Ala Leu Leu Lys Val Met Gly His Arg Ser Tyr Lys Thr Lys Ala Ile
    50                  55                  60
Glu Leu Ala Lys Leu Cys Arg Lys Lys Glu Gly Arg Val Ala Ala Ala
65                  70                  75                  80
Glu Lys Ile Val Glu Leu Ala Leu Asn Pro Asp Arg Met Ala Met His
                85                  90                  95
Met Pro Glu Val Lys Leu Glu Asp Thr Lys Arg Pro Leu Tyr Lys Ile
            100                 105                 110
Arg Asn Arg Ala Gly Met Val Leu Glu Thr Ala Gln Pro Ser Glu Thr
        115                 120                 125
Thr Ser Lys Ser Ala Arg Val Pro Ile Leu Arg Asp Ile Lys Glu Thr
```

```
    130                 135                 140
Leu Val Val Thr Thr Leu Cys Asn Ala Trp Phe Leu Phe Pro Leu Leu
145                 150                 155                 160
Gly Tyr Ser Leu Leu Leu Val Pro Arg Leu Arg Leu Ser Val Leu Leu
                165                 170                 175
Tyr Ile Leu Tyr Val Lys Tyr Leu Ala Lys Ala His Lys Thr Gly Thr
            180                 185                 190
Leu Ala Leu Arg Asn Asp Arg Leu Arg Thr Ser Trp Ile Trp Lys Ala
        195                 200                 205
Tyr Ala Ser Tyr Phe Pro Leu Arg Leu Tyr Arg Ser Val Pro Leu Ser
    210                 215                 220
Pro Arg Lys Lys Tyr Ile Phe Gly Tyr His Pro His Gly Ile Ala Leu
225                 230                 235                 240
Arg Gly Ala Leu Gly Thr Leu Ala Ala Asp Ala Ala Ala Phe Ser Asp
                245                 250                 255
Leu Phe Pro Gly Val Thr Asn Thr Leu Leu Met Lys Asp Glu Ala Phe
            260                 265                 270
Tyr Gln Pro Ile Tyr Arg Glu Tyr Leu Leu Ser Thr Gly Val Ser Gly
        275                 280                 285
Val Ser His Ser Ser Cys Ile Arg His Leu Thr Arg Ala Gly His Asp
    290                 295                 300
Gly Gln Gly Met Gly Arg Ala Ile Thr Ile Thr Val Gly Gly Ser Arg
305                 310                 315                 320
Glu Tyr Asn Ile Ala Arg Pro Gly Thr Met Cys Val Val Val Arg Ile
                325                 330                 335
Arg Lys Gly Phe Val Arg Val Ala Val Glu Thr Gly Ala Asp Leu Val
            340                 345                 350
Pro Val Ile Ala Phe Gly Glu Asn Glu Leu Phe Asp Cys Val Asn Val
        355                 360                 365
Ser Ser Ser Thr Val Leu Gly Val Val Ala Arg Val Trp Glu Trp Ala
    370                 375                 380
Val Gly His Lys Val Ala Phe Ser Thr Gly Arg Phe Asn Ile Phe Cys
385                 390                 395                 400
Pro Tyr Arg Arg Pro Val Asn Val Val Val Gly Ala Pro Thr Pro Val
                405                 410                 415
Cys Phe Met Ser Arg Arg
            420
```

<210> 37446
<211> 203
<212> PRT
<213> A.fumigatus

<400> 37446

```
Lys Pro Val Pro Leu Arg Thr Thr Leu Ser Pro Ser Gln His Leu Ala
1               5                   10                  15
Ser Ser Thr Ser Met Ala Thr Pro Thr Arg Val Leu Phe Leu Ala Asn
            20                  25                  30
Ser Glu His Gly Gln Thr Asn Ile Ile Leu Ala Ile Thr His Glu Leu
        35                  40                  45
Leu Val Arg Gly Asp Val Asp Val His Ile Ala Ser Phe Pro Ala Leu
    50                  55                  60
Glu Arg Arg Val Asn Lys Leu Leu Asn Asp Asn Ala Pro Ser Tyr Asp
65                  70                  75                  80
Asp Ser Phe Arg Ser Arg Ile His Phe His Pro Ile Arg Gly Pro Ser
                85                  90                  95
```

```
Asn Thr Asp Val Phe Ile Arg Thr Gly Lys Arg Gly Ala Phe His Pro
            100                 105                 110
Pro Gly Tyr Ser Gly Ala Val Leu Gly Phe Gln Ser Leu Cys Glu Asp
        115                 120                 125
Ile Trp Gly Trp Thr Glu Asp Glu Tyr Val Asp Ile Tyr Gln Cys Cys
    130                 135                 140
Met Glu Ile Ile Lys Ser Val Gln Pro Ser Val Ile Ala Ala Asp Phe
145                 150                 155                 160
Phe Phe Leu Gln Gly Arg Asp Ala Ala Phe Asn Ala Gly Tyr Thr Ala
                165                 170                 175
Ile Leu Ile Asn Thr Thr Ser Leu Thr His Ile Val Leu Gly Leu Gln
            180                 185                 190
Pro His Ser Ala Ala Leu Trp Lys Tyr Pro Leu
        195                 200
```

<210> 37447
<211> 82
<212> PRT
<213> A.fumigatus

```
<400> 37447
Met Thr Met Pro Leu Pro Thr Met Thr Arg Phe Asp Pro Ala Ser Ile
1               5                   10                  15
Ser Thr Pro Phe Ala Asp Pro Pro Ile Gln Thr Cys Ser Phe Ala Arg
            20                  25                  30
Ala Ser Glu Glu Arg Ser Ile Leu Leu Ala Thr Ala Ala Pro Cys Ser
        35                  40                  45
Ala Ser Ser His Ser Ala Lys Thr Ser Gly Ala Gly Pro Lys Thr Asn
    50                  55                  60
Thr Leu Ile Ser Ile Ser Ala Val Trp Lys Ser Ser Ser Arg Cys Ser
65                  70                  75                  80
Leu Arg
```

<210> 37448
<211> 138
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (18),(19)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 37448
Arg Val Ala Lys Leu Pro Pro Ser Ile Val Ser Thr Cys Leu Ala Phe
1               5                   10                  15
Pro Xaa Xaa Gly Ser Arg Leu Asp Ser Tyr Leu Ile Ala Leu Glu Ala
            20                  25                  30
Cys Asp Glu Leu Glu Leu Val Ile Arg Pro Asp Phe Ala Leu Glu Ala
        35                  40                  45
Phe Thr Lys Asp Ser Asp Asn Thr Glu Glu His Arg Gly Gln Gln Ile
    50                  55                  60
His Phe Gln Arg Gly Met Gly Lys Asn Tyr Glu Arg Leu Glu Phe Leu
65                  70                  75                  80
Gly Asp Cys Phe Leu Lys Met Ala Thr Ser Ile Ala Leu Phe Ser Gln
```

```
                85                  90                  95
Asn Pro Asn Asp Asp Glu Phe Asp Tyr His Val Asn Arg Met Cys Leu
            100                 105                 110
Ile Cys Asn Lys Asn Leu Phe Asn Thr Ala Ile Lys Lys Gln Ile Tyr
        115                 120                 125
Arg Tyr Ile Arg Ser Arg Gly Phe Ser Arg
    130                 135
```

<210> 37449
<211> 99
<212> PRT
<213> A.fumigatus

<400> 37449

```
Thr Phe Leu His Asn Lys Leu Thr Asn Glu Tyr Gly Cys Thr Asn Tyr
1               5                   10                  15
Cys Leu Lys Ala Gly Glu Leu Pro Thr Ile Asp Gly Ala Pro Ala Thr
            20                  25                  30
Val Leu Ala Ala Val Ile Val His Gly Asn Val Ile Ser Glu Ala Arg
        35                  40                  45
Ser Ser Ser Ser Arg Tyr Ala Lys Ile Lys Ala Ser Glu Lys Ala Leu
    50                  55                  60
Ala Val Leu Asp Gly Leu Leu Pro Ser Glu Phe Cys Gln Lys Tyr Arg
65                  70                  75                  80
Cys Asp Cys Lys Glu Thr Lys Asn Ser Ser Ser Val Met Glu Ile Gly
                85                  90                  95
Thr Ala Ile
```

<210> 37450
<211> 67
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (65)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37450

```
Lys Val Glu Asp Met Ser Leu Pro Ile Lys Arg Ala Leu Ala Leu Val
1               5                   10                  15
Glu Ala Ile Ser Gly Asp Leu Asp Thr Pro Ile His Ser Leu Leu His
            20                  25                  30
Arg Lys Thr Ile Leu His Leu Glu Leu Ser Arg Asn Ser Val Leu Leu
        35                  40                  45
Met Lys Asn Trp Trp Cys Glu Leu Gly Lys Leu Gly Thr Lys Asn Leu
    50                  55                  60
Xaa Gly Val
65
```

<210> 37451
<211> 204
<212> PRT
<213> A.fumigatus

<400> 37451
Pro Arg Asp Arg Asp Leu Asn Leu Tyr Asp Ala Asp Ser Leu Asn Gly
1 5 10 15
Arg His Ile Trp Tyr Pro Asp Gly Leu Thr Leu Leu His Gly Lys Asp
20 25 30
His Ser Thr Lys Leu Leu Ser Glu Gly Lys His Ala Leu Gly Glu Lys
35 40 45
Thr Ile Ala Asp Val Cys Glu Ala Leu Ile Gly Ala Ser Leu Leu Ser
50 55 60
Gly Gly Pro Glu His Arg Phe Asp Met Ala Thr Lys Ala Val Ser Ala
65 70 75 80
Leu Val Asp Ser Pro Ser His Arg Val Ser Cys Trp Lys Glu Tyr Ile
85 90 95
Thr Leu Tyr Thr Leu Pro Lys Tyr Gln Thr Glu Lys His Arg Gly Ser
100 105 110
Glu Asp Asp Leu Ala Arg His Val Glu Glu Glu Leu Gly Tyr His Phe
115 120 125
Thr Tyr Pro Arg Leu Leu Ala Ser Ala Ile Thr His Pro Ser Leu Pro
130 135 140
Ser Thr Trp Gly Tyr Arg Val Pro Cys Tyr Gln Arg Leu Glu Phe Leu
145 150 155 160
Gly Asp Ser Leu Leu Asp Met Val Cys Val Glu Asp Leu Phe Arg Arg
165 170 175
Phe Pro Asp Arg Asp Pro Gln Trp Leu Ser Glu His Lys Val Ser Ser
180 185 190
Lys Leu Arg Phe Ser Leu Ser Pro Tyr Leu Leu Ser
195 200

<210> 37452
<211> 462
<212> PRT
<213> A.fumigatus

<400> 37452
Arg Ile Thr Asn Met Glu Val Ala Ser Ala Gly Met Ser Asn Gly Val
1 5 10 15
Pro Ala Pro Ala Gln Ala Ser Phe Val Asp Ser Ala Ala Leu Ile Gln
20 25 30
Tyr Leu Val Asp Val Leu Gln Ala Thr Leu Gly Ala Leu Lys Thr Glu
35 40 45
Leu Glu Ser Thr Gly Ser Leu Leu Ser Glu Ala Lys Tyr Ser Glu Thr
50 55 60
Val Gln Arg Cys Thr Arg Phe Ala Ser Glu Ser Gln Val Ala Leu Tyr
65 70 75 80
Val Gln Lys Asp Leu Val Ala Ser Glu Gly Thr Asn Ala Ala Glu Asp
85 90 95
Gly Glu Gly Met Cys Ile Pro Ser Gly Gln Leu Tyr Asp Arg Met Ile
100 105 110
Thr Leu Ser Cys Ser Ser Ala Ala Ser Ser Val Gln Tyr Ala Tyr Asn
115 120 125
Leu Ser Ala Glu Ile Ser Ser Ser Ser Thr Thr Val Ala Ser Val Ala
130 135 140
Phe Ile Lys Arg Pro Ala Pro Ile Asp Pro Thr Leu Pro Ile Ser Ser
145 150 155 160
Gln Val Gln Val Ile Asn Leu Pro Gly Pro Ala Ser Leu Asn Asn Ala
165 170 175

```
Gln Ala Gln Gln Gly Ala Ser Leu Ser Pro Tyr Glu Val Leu His Leu
            180                 185                 190
Leu Val His His Ala Leu Ser Pro Tyr Phe Glu Ala Asn Thr Arg Asn
        195                 200                 205
Gln Asp Ala Ala Thr Gly Leu Lys Pro Arg Thr Asp Thr Glu Val Lys
    210                 215                 220
Thr Gly Val Pro Gly Thr Lys Lys Lys Phe Ala Glu Leu Glu Leu Gly
225                 230                 235                 240
Leu Leu His Leu Gln Gln Asn Val Glu Ile Pro Ala Leu Asn Leu Pro
                245                 250                 255
Leu His Glu Val Val Gln Ala Ala Leu Val Glu Ala Glu Thr Arg Gly
            260                 265                 270
Ile Lys Pro Ser Val Glu Leu Ile Pro Ser Asn Val Leu Glu Ser Ser
        275                 280                 285
Ala Phe Ile Asn Ser Ile Gln Asn Asn Val Asn Ala Trp Ile Arg Ser
    290                 295                 300
Ile Gln Thr Ile Thr Lys Met Ser Arg Asp Ala Asp Ser Gly Ser Ala
305                 310                 315                 320
Ala Gln Glu Ile Asn Phe Trp Leu Ser Met Glu Thr Ala Leu Glu Gly
                325                 330                 335
Ile Glu Asn Gln Leu Arg Ser Asp Gly Val Gln Leu Thr Met Asp Ile
            340                 345                 350
Leu Arg His Ala Lys Arg Tyr Gln Ala Thr Leu Ser Phe Val Ala Asp
        355                 360                 365
Thr Gly Leu Arg Glu Ala Thr Asp Met Val Gln Lys Tyr Asn Gln Leu
    370                 375                 380
Met Arg Asp Phe Pro Leu Asp Glu Leu Leu Ser Ala Thr Thr Leu Gln
385                 390                 395                 400
Lys Val Gln Glu Ser Leu Gly Leu Ile Phe Gly His Leu Asn Lys Lys
                405                 410                 415
Leu Lys Ile Cys Pro Tyr Arg Ser Ser Glu Leu Leu Pro Leu Leu Lys
            420                 425                 430
Leu Ser Gln Val Ile Ser Thr Arg Gln Phe Ile Val Cys Phe Thr Ala
        435                 440                 445
Lys Pro Phe Cys Thr Trp Asn Tyr Arg Glu Ile Arg Phe Phe
    450                 455                 460
```

<210> 37453
<211> 109
<212> PRT
<213> A.fumigatus

<400> 37453

```
Arg Lys Leu Ala Ala Ser Gln Gln Thr Leu Asn Leu Val Glu Asp Gln
1               5                   10                  15
Phe Glu Thr Asn Tyr Phe Gly Pro Leu Asn Ile Ile Glu Ala Thr Leu
            20                  25                  30
Pro His Met Arg Lys Gln Lys Ser Gly His Ile Met Ile Leu Ser Ser
        35                  40                  45
Ile Ser Met Ile Ser Leu Gly Pro Tyr Tyr Ser Asn Ala Thr Leu Thr
    50                  55                  60
Trp Ser Ser Cys Pro His Arg Tyr Thr Gly Pro Trp Asp Val Leu Arg
65                  70                  75                  80
Arg Trp Leu Gly Pro Gly Gly Ile Leu Arg Cys Lys Leu Leu Thr Glu
                85                  90                  95
Phe Thr Phe Leu Ile Phe Gln Leu Arg Ser His Ile Ile
```

100 105

<210> 37454
<211> 146
<212> PRT
<213> A.fumigatus

<400> 37454
Ser Gly Leu Lys Gly Ala Leu Gln Gly Leu Ala Val Phe Met Leu Thr
1 5 10 15
Gln Phe Leu Ile Ser Gln Phe Phe Gly Asn Lys Ser Gln Asn Ala Gly
20 25 30
Ser Gly Val Lys Pro Gly Glu Leu Thr Ser Phe Gln Ala Arg Pro Pro
35 40 45
Arg Ser Glu Ile Val Asp Tyr Ser Pro Ile Pro Asp Thr Val Ala Pro
50 55 60
Ile Trp Pro Pro Asn Ser Ala Val Asp Ile Ser Ile Tyr Val Ser Pro
65 70 75 80
Ser Ile Val Leu Pro Ser Leu Ser Ser Leu Pro Ser Asp Ser Leu Val
85 90 95
Leu Ser Glu Lys Asn Phe Thr Ile Gly Asn Tyr Ser Asp Thr Arg Gly
100 105 110
Asn Arg Asp Tyr His Arg Asp Ser Gln Gly Ser Pro Ala Lys Trp Asn
115 120 125
Ala Leu Gly Ala Phe Leu Cys Cys Ala Asp Arg Thr Pro Thr Arg Pro
130 135 140
Asn Gly
145

<210> 37455
<211> 246
<212> PRT
<213> A.fumigatus

<400> 37455
Ile Leu Lys Ile Asn Gly Lys Arg Met Thr Phe Ala Ile Pro Ser Gly
1 5 10 15
Gln Arg Val Phe Leu Pro Ala Val Gln Ala Pro Val Gln Gln Arg Ser
20 25 30
Thr Ala Ser Ser Gln Asp Lys Asp Asp Gly Phe Ser Lys Thr Val Ile
35 40 45
Pro Thr Asn Gly Ala Ala Lys Lys Asn Glu Glu Ala Gln Gly Asp Thr
50 55 60
Asp Asn Thr Arg Lys Ser Arg Ser Ser Arg Lys Arg Lys Ser Glu Val
65 70 75 80
Glu Leu Ala Ser Arg Lys Lys Arg Gln Gln Glu Pro Ile Ser Ser Glu
85 90 95
Glu Asp Ser Gln Asp Arg Glu Pro Asp Asp Asp Val Val Leu Val Ala
100 105 110
Asn Ser Arg Ser Val Ala Val Glu Val Thr Ser Pro Arg Ala Glu Ala
115 120 125
Asp Ser Leu Ile Pro Thr Arg Ile Leu Asp Thr Ile Ser Thr Thr Asn
130 135 140
Asn Lys Glu Gly Glu Ser Val Ala Ala Ala Ala Thr Glu Val Leu Gln
145 150 155 160
Asp Asn Val Thr Ser Gly Val Ala Met Asp Glu Gly Ser Ser Ser Thr

```
                165                 170                 175
Asn Leu Ala Ser Asp Ser Tyr Gln Thr Ser Glu Ile Ile Leu Glu Asn
            180                 185                 190
Ile Gly Gly Pro Thr Ala Leu Ala Leu Lys Ile Leu Glu Val Asp Gly
        195                 200                 205
Arg Ile Lys Asp Val Pro Asn Gly Asn Ala Trp Lys Glu Phe Arg Ser
    210                 215                 220
Tyr Arg Asn Asn Gln Asp Met Gly Ser Leu Trp Glu Val Arg Gln Ala
225                 230                 235                 240
Trp Tyr Leu Arg Gly Lys
                245
```

<210> 37456
<211> 277
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (190)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37456

```
Val Lys Arg Thr Ser Arg Ser Gly Ile Thr Val Thr Pro Gly Glu Ile
1               5                   10                  15
Ala Thr Thr Ile Glu Ile Pro Lys Glu Val Gln Gln Asn Gly Thr Leu
            20                  25                  30
Trp Ala His Phe Tyr Val Ala Leu Thr Gly His Gln Leu Asp Pro Thr
        35                  40                  45
Ala Lys Asp Tyr Ser Thr Asp Ser Ala Val His Phe Phe Arg Pro Leu
    50                  55                  60
Asn His Tyr Leu Pro Lys Lys Lys Val Lys Lys Leu Lys Asn Leu Leu
65                  70                  75                  80
Ala Ser Ser Asp Asp Thr Glu Glu Glu Glu Glu Asp Asn Ser Ile Pro
                85                  90                  95
Asp Val Ser Ile Ala Ser Tyr Tyr His Pro Asn Phe Thr Val Ser Leu
            100                 105                 110
Ile Pro Asp Ser Gly Val Gln Lys Tyr Arg Gln Val His Pro Ala Ile
        115                 120                 125
Arg His His Met Gln Leu Glu Ala Thr Gly Ala Arg Asp Ala Ser Gly
    130                 135                 140
Gln Asn Gly Trp Tyr Tyr Pro Ile Val Phe Leu Asn Thr Phe Trp Gln
145                 150                 155                 160
Leu Arg Ser His Met Thr Glu Leu Asn Ser Thr Val Lys Thr Met Pro
                165                 170                 175
Leu Arg Ile Thr Leu Asn Asn Leu Ser Asn Trp Lys Phe Xaa Met Met
            180                 185                 190
Ala Ser Val Asp Glu Asn Ala Lys Ala Asn Pro Arg Gln Gly Ala Phe
        195                 200                 205
Gly Lys Phe Arg Ser Trp Lys Ala Gly Met Ala Leu Asn Leu Arg Trp
    210                 215                 220
Ser Arg Lys Ile Leu Phe Glu Pro Lys Ile Trp Leu Ala Trp Tyr Asn
225                 230                 235                 240
Gly Gly Tyr Leu Gln Ile Leu His Ile Asn Leu Glu Asn Leu Gly Leu
                245                 250                 255
Leu Arg Asn Lys Asn Cys Trp Gly Cys Pro Phe Pro Leu Glu Thr Pro
```

```
            260                 265                 270
Phe Cys Leu Pro Ile
        275
```

<210> 37457
<211> 75
<212> PRT
<213> A.fumigatus

<400> 37457

```
Ser Gly Asn Thr Leu Gln Arg Gly Asn Asn Gly Leu Pro Gln Ala Cys
1               5                  10                  15
Ser Gly Asp Pro Asp Pro Pro Met Ser Met Gln Ser Asn Ile Ala Ser
            20                  25                  30
Ser Tyr Ile Ala Arg Cys Gly Pro Pro Lys Gln Leu Ser Lys Cys Arg
        35                  40                  45
Pro Glu Tyr Arg Pro Leu Asp Gly Gly Arg Ala Lys Ser Trp Gly Ala
    50                  55                  60
Asn Asp Leu Thr Met Leu Tyr Leu Arg Gln Gln
65                  70                  75
```

<210> 37458
<211> 88
<212> PRT
<213> A.fumigatus

<400> 37458

```
Arg Pro Phe Val Arg Cys Phe Ala Ser Leu Phe Tyr Thr Tyr Lys Lys
1               5                  10                  15
Phe Leu Gln Pro Ala Thr Gly Asp Lys Lys Lys Ala Gly Leu Thr Tyr
            20                  25                  30
Ser Phe Asn Met Glu Ala Phe Leu Lys Ser Leu Pro Ser Glu His Ala
        35                  40                  45
Glu Tyr Ile Ala Val Leu Gln His Thr Gln Gly Lys Arg Gly Glu Asn
    50                  55                  60
Val Asn His Met His Gly Leu Tyr Cys Ser Pro Arg Gln Val Leu Thr
65                  70                  75                  80
Ser Ser Leu Gly Lys Glu Lys Gly
                85
```

<210> 37459
<211> 62
<212> PRT
<213> A.fumigatus

<400> 37459

```
Pro Ile His Leu Arg Thr Gly Gly Phe Pro Arg Ser Thr Arg Ala Ser
1               5                  10                  15
Gln Met Gly Ala Val Val Leu Arg Asn Gly Met Ser Ile Leu Phe Pro
            20                  25                  30
Arg Ile Ile Gly Asp Phe Asn Pro Thr Pro Tyr Gly Arg Ser Ser Ile
        35                  40                  45
Thr Glu Tyr Ser His Arg Val Tyr Leu Val Phe Arg Val Thr
    50                  55                  60
```

<210> 37460

<211> 112
<212> PRT
<213> A.fumigatus

<400> 37460
Ala Arg Gly Lys Arg Lys Pro His Ala Trp Ser Val Leu Leu Thr Ser
1 5 10 15
Ser Gly Phe Asn Glu Phe Ile Gly Glu Arg Glu Arg Val Asn Pro Lys
20 25 30
Ser Lys Asp Pro Arg Leu Ala Leu Phe Asp Glu Ile Val Leu Ser Lys
35 40 45
Arg Asn Arg Gly Arg Ser Ser Leu Phe Ser Ser Arg Thr Thr Thr Asp
50 55 60
Phe Leu Ser Asp Thr Ser Asn His Leu Trp Arg Thr Ala Ser Ala Thr
65 70 75 80
Ser Phe Pro Pro Ser Ser Arg Gly Gln Gln Thr Leu Ser Gly Asp Tyr
85 90 95
Thr Arg Ile Val Thr Arg Gly Ala Ser Thr Ile Asp Lys Leu Ile Ser
100 105 110

<210> 37461
<211> 221
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (191)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37461
Thr Glu Gln Ser Ile Cys Pro Cys Asn Glu Met Met Gln Thr Ala Ile
1 5 10 15
His Gln Pro Met Ala Met Thr Ile Leu Ala Asp Thr Ala Pro Ser Val
20 25 30
Thr Asn Asn Ser Ala Ser Ala Pro Ser Pro Ala Asn Gly Ala His Pro
35 40 45
Pro Leu Ala Thr Ala Val Ser Ala Asn Ser Ala Val Ala Ala Ala Pro
50 55 60
Pro Ser Val Pro Ala Asp Pro Pro Arg Thr Val Val Val Val Tyr Arg
65 70 75 80
Ser Gly Gln Asp Ser Ile Val His Leu Val Ala Glu Val Leu Gly Lys
85 90 95
Pro Trp Thr Thr Glu Thr Ser Leu Ser Thr Leu Val Thr Gly Ser Asn
100 105 110
Ala Val Val Val Gly Ile Leu Ala Ala Glu Leu Ala Arg Ser Leu Asp
115 120 125
Glu Cys Asp Pro Ser Thr Leu Ile Val Ile Asn Thr His Cys Val Asp
130 135 140
Asp Gly Ser Ser Pro Asp Glu Ala Leu Thr Asp Arg Cys Asp Tyr Glu
145 150 155 160
Phe Leu Tyr Ser His Ser Pro Phe Leu Arg Arg Asp Leu Thr Arg Phe
165 170 175
Leu Ser Leu Ile Leu Gly Gln Thr Arg Pro His Glu Asp Leu Xaa Thr
180 185 190
Lys Thr Arg Pro Asn Phe Leu Ser Asn Asn Trp Asp Pro Gln Arg Arg

```
        195                 200                 205
Ala Ser Lys Ile Arg Ala Asn Ser Phe Asn Pro Leu Trp
    210                 215                 220
```

<210> 37462
<211> 108
<212> PRT
<213> A.fumigatus

<400> 37462

```
Ala Leu Arg Arg Phe Pro Cys Ala Ala Ser Met Leu Thr Cys Tyr Leu
1               5                   10                  15
Gly Ser Tyr Asp Ala Val Met Leu Gly Arg Tyr Thr Asp Leu Val Lys
            20                  25                  30
Ile Tyr Gly Glu His Thr Arg Leu Cys Leu Asn Ser Leu Ser Leu Asn
        35                  40                  45
Leu Leu Thr Ala Asn Ala Thr Ala Asn Ser Glu Asn His Ile Thr Ile
    50                  55                  60
Ser Cys Leu Glu Lys Ala Cys Asp Ala Ala Val Ala Leu Val Gln Tyr
65                  70                  75                  80
Tyr Val Lys Ser Ser Asp Ser Glu Pro Ile Val Arg Tyr Gly Ala Asp
                85                  90                  95
Val Ser Cys Cys Tyr Leu Leu Leu Val Cys His Arg
            100                 105
```

<210> 37463
<211> 91
<212> PRT
<213> A.fumigatus

<400> 37463

```
Ala Thr Arg Ser Leu Pro Leu Leu His Phe Leu Asn Lys Glu Leu Asn
1               5                   10                  15
Cys Thr Ala Lys Val Ala Ala Asp Leu Val Ser Gly Leu Arg Thr Ala
            20                  25                  30
Arg Leu Pro Pro Thr Pro Arg Gln Asn Ile Arg Gln Pro Ala Ala Thr
        35                  40                  45
Ala Trp Ser Lys Ile Ser Ser Leu Leu Ser Asp Leu Asn Pro Arg Leu
    50                  55                  60
Asp Ala Trp Gln Arg Gln Trp Thr Trp Ala Gly Glu Pro Cys Asp Asp
65                  70                  75                  80
Phe His Ala Leu His Gln Cys Leu His Ala Ile
                85                  90
```

<210> 37464
<211> 67
<212> PRT
<213> A.fumigatus

<400> 37464

```
Leu Ser Gly Ser Ser Phe Leu Met Arg His Met Asn Ser Leu Thr Gly
1               5                   10                  15
Leu Asp Pro Ser Leu Pro Glu Ile Gln Trp Asp Phe Asp Ile Cys Ala
            20                  25                  30
Leu Leu Gly Gln Asp Ile Pro Ala Gly Glu Thr Gly Leu Asp Leu Gly
        35                  40                  45
```

```
His Tyr Phe Asp Phe Ala Gln Ser Phe Phe Pro Pro Pro Thr Asp Pro
    50                  55                  60
Gly Thr Leu
65
```

<210> 37465
<211> 430
<212> PRT
<213> A.fumigatus

<400> 37465

```
His Leu Arg Lys Gln Gly Gly Phe Thr Gly Asp Gly Phe Leu Lys His
1               5                  10                  15
Thr Thr Pro Ala Tyr Asn Ile Asp Asp His Thr Lys Gln Lys Ala Arg
            20                  25                  30
Asp Asn Leu Ala Gly Phe Glu Ala Thr Ser Leu Val Gly Ile Leu Ser
        35                  40                  45
Ser Val Thr Ile Ser Ser Phe Ser Gln Asn Ile Met Gln Ala Leu Arg
    50                  55                  60
Ile Leu Ser Met Val Val Ser Lys Leu Leu Val Phe Ala His Ile Phe
65                  70                  75                  80
Thr Val Val Val Ala His Ser Trp Val Glu Gln Leu Met Val Ile Ala
                85                  90                  95
Pro Asn Gly Thr Phe Val Gly Ser Pro Gly Tyr Pro Arg Gly Asn Val
            100                 105                 110
Leu Arg Thr Asp Pro Ser Phe Asn Asp Lys Ala Met Thr Asn Leu Ile
        115                 120                 125
Pro Pro Asp Gly Arg Ala Asn Leu Ser Gln Ile Leu Pro Ser Asp Arg
    130                 135                 140
Leu Cys Lys Asp Thr Gln Gln Lys Gln Phe Gln Thr Asp Gly Ser Pro
145                 150                 155                 160
Arg Leu Gln Ala Asn Pro Gly Ala Ala Ile Ala Leu Arg Phe Gln Glu
                165                 170                 175
Asn Gly His Val Thr Leu Pro Gln Asn Gln Ala Gly Lys Pro Arg Asn
            180                 185                 190
Arg Gly Thr Val Tyr Val Tyr Gly Thr Thr Glu Pro Lys Asp Asp Glu
        195                 200                 205
Arg Leu Leu Asp Ile His Asn Val Trp Asn Lys Glu Gly Thr Gly Gly
    210                 215                 220
Asp Gly Arg Gly Val Leu Leu Ser Thr Gln Asn Phe Asp Asp Gly Arg
225                 230                 235                 240
Cys Tyr Gln Ile Asn Ser Gly Gln Ile Ser Lys His Arg Gln Ala Met
                245                 250                 255
Tyr Pro His Glu Ala Asn Gln Leu Met Gly Ala Asp Leu Trp Cys Gln
            260                 265                 270
Gln Asp Ile Ala Leu Pro Ser Glu Ala Pro Thr Gly Lys Pro Tyr Thr
        275                 280                 285
Leu Tyr Trp Val Trp Asp Trp Pro Thr Ala Pro Gly Val Asp Pro Ser
    290                 295                 300
Leu Pro Asn Gly Lys Gln Glu Ile Tyr Thr Thr Cys Ile Asp Val Asp
305                 310                 315                 320
Val Ile Asp Ser Pro Pro Thr His Glu Arg Val Pro Ala Asn Tyr Val
                325                 330                 335
Glu Asp Gln Ser Leu Asn Asn Ala Ala Ile Pro Ser Gln Phe Ala Glu
            340                 345                 350
Ile Phe Gly Met Lys Leu Pro Ser Phe Ser Ala Pro Val Ser Ser Thr
```

```
        355                 360                 365
Ser Arg Leu Ile Pro Thr Pro Thr Ala Val Pro Lys Gln Pro Thr Pro
    370                 375                 380
Ala Thr Val Thr Ser Phe Ile Thr Leu Thr Lys Thr Val Gln Pro Asp
385                 390                 395                 400
Ala Trp Gln Thr Ser Leu Gly Ser Ser Ile Pro Ser Tyr Ser Thr Pro
                405                 410                 415
Ser Phe Ser Ser Pro Ala Trp Asn Trp Phe Arg Arg Pro Ile
            420                 425                 430
```

<210> 37466
<211> 62
<212> PRT
<213> A.fumigatus

<400> 37466

```
Phe Ala Ile Leu Phe Ile Ala Lys Ser Arg Thr Ile Ala Val Arg Leu
1               5                   10                  15
Ile Ser Met Ala Met Thr Gly Tyr Tyr Arg Thr Met Val Arg Pro Arg
            20                  25                  30
Thr His Arg Pro Leu Ser Met Leu Lys Tyr Asp Pro Val Val Lys Lys
        35                  40                  45
Lys Val Leu Phe Leu Glu Ala Thr Lys Gly Gly Arg Ala Lys
    50                  55                  60
```

<210> 37467
<211> 521
<212> PRT
<213> A.fumigatus

<400> 37467

```
Ile Leu Glu Arg Glu Gln Gln Leu Arg Glu Leu Glu Ala Ser Arg Thr
1               5                   10                  15
Gln Ile Ala Thr Arg Met Ser Glu Gln Glu Ala Glu Leu Glu Leu Leu
            20                  25                  30
Arg Glu Ala Lys Val Ala Ala Leu Ala Gln Gln Lys Lys Ile Ser His
        35                  40                  45
Gln Leu Asp Ala Val Gln Gly Thr Ile Val Glu Leu Ser Asp Arg Leu
    50                  55                  60
Ser Ser Lys Asp Val Glu Phe Lys Tyr Val Gln Lys Lys Leu Asp Thr
65                  70                  75                  80
Cys Gln Ser Asn Leu Leu Lys Arg Glu Glu Glu Leu Thr Gln Val Lys
                85                  90                  95
Lys Lys Leu Cys Asn Ala Glu Ser Ala Arg Ser Lys Met Glu Thr Gly
            100                 105                 110
Lys Arg Lys Ala Lys Ser Glu Ile His Ala Leu Leu Lys Arg Leu Gln
        115                 120                 125
Asp Ser Glu Arg Trp Lys Arg Asn Ile Lys Ala Ala Ile Thr Arg Pro
    130                 135                 140
Gly Asp Pro Pro Phe Asp Gly Pro Val Ala Gly Thr Trp Asp Lys Leu
145                 150                 155                 160
Lys Asp Tyr Leu Asn Ser Ala Asp Asn Asp Thr Pro Val Pro Asp Ser
                165                 170                 175
Gln Lys Thr Thr Val Pro Thr Gly Leu Asn Val Val Ser Val Ser Arg
            180                 185                 190
Ser Pro Ser Val Ala Leu Thr Pro Asn Arg Ile Cys Glu Ser Pro Ile
```

```
        195                 200                 205
Gln Gly Phe Val Gln Thr Thr Glu Val Ile Tyr Arg Pro Gln Ser Phe
    210                 215                 220
Gln Gly Gly Glu Leu Ser Ser Pro Val Leu Thr Asn Ala Arg Ala Gly
225                 230                 235                 240
Asn Thr Asp Ser Leu Asn His Cys Glu Arg Pro Glu Leu Leu Thr Glu
                245                 250                 255
Ile Val Pro Phe Ser Ser Ile Arg Gln Gln Leu Ser Ala Ala Ser Cys
            260                 265                 270
Ser Ser Leu Ser Pro Glu Pro Ser Asp Leu Ala Glu Met Leu Asp Leu
        275                 280                 285
Thr Pro Asn Asn Lys Pro His Ser Val His Gly Asp Thr Val Val Glu
    290                 295                 300
Leu Pro Thr Gln Thr Asn Glu Lys Gly Thr Val Ala Thr Ser Asp Lys
305                 310                 315                 320
Ala Asp Gly Phe Glu Leu Gly Thr Ile Asp Glu Gln Ser Arg Ser Ser
                325                 330                 335
Gln His Gln Leu Val Lys Leu Asn Cys Leu Ala Thr Glu Thr Ala Gly
            340                 345                 350
Gly His Lys Asn Ala Arg Glu Asp Gln Asp Lys Gln Lys Thr Val Thr
        355                 360                 365
Phe Arg Ala Glu Lys Glu Gly Asn Arg Ile Glu Lys Arg Lys Phe Ser
    370                 375                 380
Ala Thr Val Asp Ser Thr Ala Glu Glu Ser Ala Ser Glu Asp Arg Leu
385                 390                 395                 400
Ile Lys Lys Pro Gly Arg Thr Met Lys Arg Thr Tyr Ser Lys Ile Gln
                405                 410                 415
Arg Ser Pro Ser Ser Asn Gly Val Pro Lys Phe Pro Asn Glu Ser Asn
            420                 425                 430
Ala Ser Pro Ala Ser Glu Arg Ser Asn Arg Asp Thr His Thr Glu Asn
        435                 440                 445
Gln Tyr Thr Ser Asn Asp Lys Arg Ala Arg Val Ser Val Ala Pro Ser
    450                 455                 460
Asn Ser Lys Pro Arg Gly Gln Gly Gln Gly Ala Gly Asn Tyr Leu Glu
465                 470                 475                 480
Arg Arg Thr Ser Pro Ala Ser Leu Ala Ser Gly Asn Ser Arg Gln Ser
                485                 490                 495
Ser Ala Ile Glu Asn Asn Pro Lys Asn Asn Arg Trp Thr Ala Arg Gly
            500                 505                 510
Ala Thr Arg Arg Ser Gln Ile Thr Gln
        515                 520
```

<210> 37468
<211> 369
<212> PRT
<213> A.fumigatus

<400> 37468

```
Val Pro Ser Asn Val Ser Pro Asp Leu Arg Thr Gly Ser Lys Val Glu
1               5                   10                  15
His His Gly Asn Arg Leu Leu Lys Gln Tyr Ile Glu Lys Gln Glu Trp
            20                  25                  30
Ala Ala Ala Ile Gln Lys Asn Thr Asn Arg Gln Asp Glu Val Met Ser
        35                  40                  45
Val Glu Arg Thr Pro Asn Thr His Ser Leu Arg Pro Thr Thr Asp Gln
    50                  55                  60
```

```
Phe Thr Ile Leu Lys Arg Arg Pro Thr Asn Gly Lys Lys Val Pro Ser
65                  70                  75                  80
Ala Leu Arg Asn Met Thr Leu Ala Ser Asn Asn Gly Ser Ser Gln Leu
                85                  90                  95
Ser Glu Glu Asp Leu Phe Gln Leu Leu Ile Asn Trp Met Arg Val Arg
            100                 105                 110
Glu Glu Asn Glu Ile Ser Ala Ser Asn Leu Gln Glu Arg Met Glu Ala
        115                 120                 125
Asp Met Phe Ala Leu Thr Glu Glu Asn Lys Ser Leu Lys Asn His Leu
    130                 135                 140
Glu Thr Leu Asp Asn Gln Leu Gln Arg Ser Arg Cys Gln Ser Lys Ile
145                 150                 155                 160
Tyr Gly Ala Gln Ile Glu Asn Trp Lys Thr Lys Leu Ala Lys Phe Lys
                165                 170                 175
Gly Ile Leu Asn Glu Leu Gly Ala Glu Tyr Arg Asn Leu Arg Asn Glu
            180                 185                 190
Asn Leu Arg Leu Lys Asp Ser Lys Ala Thr Leu Glu Asn Glu Arg Asn
        195                 200                 205
Glu Ile Glu Ser Gly Ile Lys Asp Ala Lys Arg Gln Ile Ser Gln Ala
    210                 215                 220
Ala Val Leu Val Lys Glu Lys Arg Thr Gln Leu Ala Glu Ser Glu Arg
225                 230                 235                 240
Lys Val Glu Ser Met Thr Leu Ala Leu Lys Asn Glu Glu Glu Lys Thr
                245                 250                 255
Ala Phe Val Gln Thr Gln Leu Val Glu Glu Arg Arg Arg Ser Ser Ile
            260                 265                 270
Leu Glu Ser Tyr Ile His Asn Asn Ser Arg Val Gln Thr Lys Gln Leu
        275                 280                 285
Ala Ile Ile Arg Thr Glu Gln Gln Glu Met Leu Asn Lys Leu Asn Ser
    290                 295                 300
Ala Phe Asp Arg Leu Asp Gln Ser Val Asn Ala Ser Gln Ala Ala Asn
305                 310                 315                 320
Gln Thr Thr Leu Glu Leu Thr Leu Glu Lys Thr Phe Pro Leu Leu Lys
                325                 330                 335
Glu Leu Ser Glu Gln Leu Leu Ser Cys Arg Ala Asp Ile Gln Gln Tyr
            340                 345                 350
Lys Asp Thr Val His Lys Ile Phe Ser Arg Cys Asp Gln Ser Gln Arg
        355                 360                 365
Tyr
```

<210> 37469
<211> 252
<212> PRT
<213> A.fumigatus

<400> 37469

```
Leu Val Ala Val Ser Ala Asn Met Phe Asp Phe Lys Leu Asn Glu Gly
1               5                   10                  15
Leu Glu Arg Asn Phe Ala Leu Asn Glu Asn Val Ala His Lys Val Leu
            20                  25                  30
Glu Gln Leu Lys Leu Phe Glu Asn Thr Asn Gly Cys His Met Ala Leu
        35                  40                  45
Leu Lys Gln Leu Gly Ile Asn Glu Glu Gln Tyr Asn Thr Val Arg Glu
    50                  55                  60
Met Leu Glu Ala Leu Lys Pro Ser Met Gln Thr Ile Ser Ser Ser Leu
```

65 70 75 80
Thr Thr Leu Asn Glu Lys Gly Ile Asp Leu Thr Gln His Ile Thr His
85 90 95
Leu Glu Lys Cys Ile Phe Glu Ala Gln Asn Pro Ala Pro Thr Ile Asp
100 105 110
Val Cys Ala Leu Phe Thr Glu Asn Ala Ala Leu Lys Asp Gln Lys Glu
115 120 125
Gln Leu Ser Ile Arg Val Arg Ser Ala Glu Glu Asn Ala Lys Ala Lys
130 135 140
Glu Leu Glu Thr Glu Lys Ala Asn Cys Ala Leu Leu Asp Val Thr Thr
145 150 155 160
Lys Met Gln Glu Glu Met Lys Arg Ala Gln Asp Phe Glu Ala Glu Val
165 170 175
Val Asn Gln Arg Gln Thr Ile Ile Ser Ile Glu Ala Lys Ile Arg Glu
180 185 190
Glu Leu Asn Arg Ala Ser Val Ile Ala Arg Asp Gln Ala Lys Ala Arg
195 200 205
Phe Glu Gln Gln Ile His Lys Met Leu Arg Glu Lys Ala Glu Ala Glu
210 215 220
Lys Asp Met Ala Ala Ile Arg Glu Ser Leu Ala Glu Val Gln Ala Ser
225 230 235 240
Met Val Val Asn Ile Asp Ser Tyr Lys Gly Arg Ser
245 250

<210> 37470
<211> 163
<212> PRT
<213> A.fumigatus

<400> 37470
Ala Phe Pro Trp Thr Ile Leu Arg Arg Ala Gly Ser Arg Trp Asp His
1 5 10 15
Met Met Arg Gln Gly Leu Ala Leu Asp Gln Gly Val Val Gln Ile Leu
20 25 30
Glu Gly Ala Leu Ala Ile Gly Ser Val Val Val Val Asn Val Gly Ile
35 40 45
Ser Glu Arg Ala Ser Gly Asn Gly Val Thr Ala Asp Thr Asp Gly Gly
50 55 60
Asn Leu Ala Asn Gly Gly Glu Glu Leu Val Glu His Ser Leu Gly Asp
65 70 75 80
Gly Gly Val Glu Phe Thr Asp Ile Glu Gly Ser Arg Val Gly Leu Ala
85 90 95
Gly Ala Gly Ser Ser Gly Gly Arg Gly Ala Leu Asn Gly Gly His Leu
100 105 110
Arg Ser Ala Gly Gly Ser Gly Val Gly Gly Leu Gly Gly Ala Val Asp
115 120 125
Ser Val Val Ser Gly Gly Gly Gly Arg Asp Phe Gly Arg His Phe Gly
130 135 140
Phe Leu Phe Leu Glu Gln Ile Lys Ser Ile Leu Leu Ala Ser Ser Asn
145 150 155 160
Thr Gly Met

<210> 37471
<211> 63
<212> PRT

<213> A.fumigatus

<400> 37471
Glu Arg Arg Gly Glu Lys Arg Glu Lys Gly Lys Glu Arg Lys Thr Gln
1 5 10 15
Gly Lys Lys Lys Trp Ile Ile Asp Glu Pro Leu Phe Phe Phe Phe Phe
20 25 30
Phe Phe Ser Leu Phe Ser Leu Pro Phe Phe Ser Leu Asn Phe Val Val
35 40 45
Glu Phe Phe Phe Ser Phe Trp Lys Ile Gln Gly Val Thr Ser Arg
50 55 60

<210> 37472
<211> 783
<212> PRT
<213> A.fumigatus

<400> 37472
Arg Ala Leu Ser Gln Arg Cys His Val Ser Gln Glu Asn Leu Ala Gln
1 5 10 15
Ser Val Leu Ala Leu Leu Arg Pro Ile Thr Ser Glu Thr Leu Thr Ala
20 25 30
Tyr Glu Trp Phe Ala Arg Ser Tyr Leu Thr Ile Pro Asp Leu Ser Ala
35 40 45
Tyr Leu Gly Thr Leu Asp Gln Leu Ala Gly Asn Ile Asn Tyr Lys Leu
50 55 60
Leu Leu Ser Ala Leu Gly Pro Leu Gln Ser Arg Phe Arg Glu Arg Pro
65 70 75 80
Gln Ser Val Thr Asp Leu Asp Ala Arg Leu Trp Leu Leu Ala Tyr Ile
85 90 95
Ile Tyr Phe His Gln Tyr Ala Asn Gly Thr Gln Ala Gly Gln Gln Ala
100 105 110
Val Glu Pro Asp Phe Val Lys Ile Val Ser Glu Leu Leu Asn Ser Thr
115 120 125
Ala Val His Leu Ser Arg Arg Leu Glu Ala Asp Asp Met Ile Asp Asp
130 135 140
Asp Val Thr Glu Glu Thr Pro Leu His Pro Phe Val Lys Glu Gln Ile
145 150 155 160
Ser Ser Leu Val Asn Gln Ser Lys Ile Thr Gly Leu Leu Ser Gln Leu
165 170 175
Gln Ser Thr His Leu Ser Gln Ser Asp Leu Ala Asn Ser Glu Ser Asp
180 185 190
Ala Ser Lys Glu Ala Lys Ile Leu Ala Thr Tyr Ala Leu Thr Leu Leu
195 200 205
Arg Val Phe Pro Arg Arg Gly Asp Asp Ile Arg Met Trp Leu Tyr Leu
210 215 220
Gly Ser Ala Thr Ser Gly Asp Gln Lys Ala Gly His Pro Gly Ser Arg
225 230 235 240
Ile Pro Ala Ile Lys Tyr Phe Trp His Ala Ser Arg Ser Ser Arg Ile
245 250 255
Phe Asp Lys Ile Ser Gln Asp Ser Thr Lys Val Leu Pro Leu Leu Lys
260 265 270
Pro Ala Asp Glu Phe Arg Glu Ser Gly Leu Ser Met Thr Gln Ala Glu
275 280 285
Arg Asp Glu Glu Trp Thr Ile Ile Leu Leu Phe Leu Glu Leu Tyr Thr
290 295 300

```
Phe Val Leu Lys Val Met Asp Asp Glu Glu Phe Phe Ser Ser Gln Ser
305                 310                 315                 320
Ser Phe Thr Ala Ser Ser Asn Ser Arg Val Ser Trp Thr Lys Glu Ser
                325                 330                 335
Ala Leu Pro Leu Lys Asp Ile Lys Asp Met Thr Val Phe Leu Lys Asn
            340                 345                 350
Leu Ala Phe Thr Leu Tyr Trp Asn Ser Ala Asp Leu Asn Glu Arg Glu
        355                 360                 365
Ala Pro Gln Thr Ala Gly Gly Ile Gln Ser Tyr Phe Thr Gly Ala Val
    370                 375                 380
Ser Ser Ser Asp Ala Ile Thr Ser Val Lys Asp Leu Glu Met Arg Asn
385                 390                 395                 400
Lys Glu Lys Gly Leu Pro Gly Val Thr Gly Ile Pro Leu Asp Tyr Phe
                405                 410                 415
Lys Gly Leu Val Thr Gly Leu Leu Arg Met Ile His Glu Arg Asp Ser
            420                 425                 430
Arg Arg Lys Phe Leu Pro Asp Gly His Trp Leu Met Thr Asn Arg Phe
        435                 440                 445
Asp Met Glu Gly Phe Ile Pro Ala Val Val Ala Glu Glu Glu Asn Arg
    450                 455                 460
His Gln Leu Gln Asp Glu Asp Glu Glu Glu Ser Gln Asp Asp Trp Met
465                 470                 475                 480
Arg Asp Asp Glu Tyr Glu Pro Leu Asn Leu Ile Gly Thr Gly Arg Ala
                485                 490                 495
Gln Gln Thr Arg Arg Ile Glu Ala Leu Arg Arg Arg Gln Gln Gln Ala
            500                 505                 510
Ala Arg Arg Lys Gln Leu Glu Ala Val Ala Pro Arg Leu Glu Ile Leu
        515                 520                 525
Arg Asn Met Pro Phe Phe Ile Pro Phe Ala Thr Arg Val Gln Ile Phe
    530                 535                 540
Arg Glu Phe Ile Tyr Arg Asp Gln Met Arg Arg Arg Gln Gly Tyr Ile
545                 550                 555                 560
Asp Pro Asp Ala Trp Arg Met Ser Val Ala Gln Ala Ser Met Gly Arg
                565                 570                 575
Met Ile Asp Gly Arg Pro Ala Ala Gln Asp Ile Leu Ser Arg His His
            580                 585                 590
Ala Asn Ile Arg Arg Glu Ser Val Phe Glu Asp Ala Phe Asp Gln Phe
        595                 600                 605
Tyr Glu Leu Gly Glu Gly Leu Lys Glu Pro Ile Gln Ile Ser Phe Ile
    610                 615                 620
Asp Lys Phe Asn Thr Val Glu Ala Gly Ile Asp Gly Gly Gly Val Thr
625                 630                 635                 640
Lys Glu Phe Leu Thr Ser Val Thr Asn Glu Ala Phe Lys Ser Gly Ser
                645                 650                 655
Glu Pro Lys Leu Phe Glu Glu Asn Asp Gln His Leu Leu Tyr Pro Asn
            660                 665                 670
Pro Ala Ala Val Glu Gln Arg Arg Glu Val Leu Arg Gln Leu Gly Phe
        675                 680                 685
Val Glu Asn Ser Pro Glu Trp Asn Glu Gln Val Arg Asp Leu Leu Arg
    690                 695                 700
Arg Tyr Glu Phe Leu Gly Arg Ile Ile Gly Lys Cys Leu Tyr Glu Gly
705                 710                 715                 720
Ile Leu Val Asp Val Asn Phe Ala Pro Phe Phe Leu Leu Lys Trp Ala
                725                 730                 735
Leu Thr Gly Gly Ala Gly Ser Ala Gln Arg Glu Thr Ala Tyr Arg Ala
            740                 745                 750
```

```
Asn Leu Asn Asp Leu Lys Asp Leu Asp Gln Gly Leu Tyr Gln Gly Leu
        755                 760                 765
Val Ser Gly Leu Ile Pro Phe Phe Phe Asn Glu Val Ala Met Cys
    770                 775                 780
```

<210> 37473
<211> 229
<212> PRT
<213> A.fumigatus

<400> 37473

```
Ile Ser Ala Ser Leu Gln Leu Gln Leu Lys Asn Tyr Thr Gly Asp Val
1               5                   10                  15
Glu Asp Phe Ala Leu Asn Phe Thr Val Thr Asp Thr Ile Pro Leu Pro
            20                  25                  30
Asn Gly Gly Thr Arg Thr Val Thr Gln Asp Leu Lys Ser Asn Gly Ser
        35                  40                  45
Asp Ile Pro Val Thr Asn Gln Asn Arg Leu Val Tyr Ile Ser Tyr Ile
    50                  55                  60
Ala Arg Tyr Arg Leu Gln Val Gln Pro Ala Leu Gln Thr Asn Ala Phe
65                  70                  75                  80
Leu Gln Gly Leu Gly His Ile Ile Gln Pro Ser Trp Leu Ser Met Phe
                85                  90                  95
Asn Gln Ser Glu Leu Gln Thr Leu Val Ser Gly Glu Ser Gly Asp Ile
            100                 105                 110
Asp Val Ala Asp Leu Arg Arg Asn Thr Leu Tyr Gly Gly Val Tyr Thr
        115                 120                 125
Ile Gly Asp Asp Lys Glu Glu His Pro Thr Val Lys Leu Phe Trp Gln
    130                 135                 140
Val Met Glu Glu Met Ser Asn Glu Glu Arg Gln Lys Val Leu Arg Phe
145                 150                 155                 160
Val Thr Ser Thr Pro Arg Ala Pro Leu Leu Gly Phe Ser His Leu Asn
                165                 170                 175
Pro Arg Phe Ser Ile Arg Asp Ser Ser Glu Asp Gln Asp Arg Leu Pro
            180                 185                 190
Ser Thr Ser Thr Cys Val Asn Leu Leu Lys Leu Pro Arg Tyr Thr Asn
        195                 200                 205
Ala Lys Val Leu Arg Glu Lys Leu Leu Tyr Ala Ile Asn Ser Gly Ala
    210                 215                 220
Gly Phe Asp Leu Ser
225
```

<210> 37474
<211> 147
<212> PRT
<213> A.fumigatus

<400> 37474

```
Lys Lys Lys Thr Lys Met Ser Ala Glu Val Ser Thr Thr Pro Ala Ala
1               5                   10                  15
Asp Asn Thr Val Asn Gly Thr Pro Glu Ala Thr Asn Ala Ala Ala Thr
            20                  25                  30
Ser Ala Pro Glu Val Thr Ala Val Glu Ser Ala Ser Pro Ser Thr Thr
        35                  40                  45
Pro Ser Ala Ser Gln Pro His Ser Ala Ser Leu Tyr Val Gly Glu Leu
    50                  55                  60
```

```
Asp Pro Ser Val Thr Glu Ala Met Leu Tyr Glu Leu Phe Ser Ser Ile
65                  70                  75                  80
Gly Gln Val Ala Ser Ile Arg Val Cys Arg Asp Ala Val Thr Arg Arg
                85                  90                  95
Ser Leu Gly Tyr Ala Tyr Val Asn Tyr Asn Asn Thr Ala Asp Gly Glu
            100                 105                 110
Arg Ala Leu Glu Asp Leu Asn Tyr Thr Leu Ile Lys Arg Gln Ala Leu
        115                 120                 125
Pro His His Val Val Pro Ala Arg Pro Arg Ser Ala Lys Asn Gly Pro
    130                 135                 140
Gly Lys Arg
145
```

<210> 37475
<211> 177
<212> PRT
<213> A.fumigatus

```
<400> 37475
Ser Ala Pro Gly Leu Cys Ser Phe Gly Phe Pro Met Ala Cys Leu Asp
1               5                   10                  15
Arg Gln Gln Leu Leu Gln Val Leu Tyr Gln Leu Phe Pro Lys Lys Pro
            20                  25                  30
Asp Ile Tyr Val Gly Lys Ser Val Val Gly Val Asp Glu Gln Asp Ser
        35                  40                  45
Arg Val Leu Val Tyr Thr Ala Asp Gly Ser Thr Tyr Glu Gly Asp Leu
    50                  55                  60
Val Val Gly Ala Asp Gly Val His Ser Arg Val Arg Thr Gln Met Trp
65                  70                  75                  80
Arg Ala Ala Lys Met Arg Arg Pro Gly Leu Ile Ser Glu Ser Glu Met
                85                  90                  95
Lys Gly Thr Asp Ser Tyr Pro Asp Gln Ile Gly Asp Ser Asp Gly Leu
            100                 105                 110
Ile Val Ile Met Ala Asp Arg Asp Glu Tyr Arg Val Cys Leu His Phe
        115                 120                 125
Arg Cys Leu Ser Tyr Gly Ser Arg Ile Gly Arg Ala Thr Pro Ala Phe
    130                 135                 140
Gln Ser Arg Gln Arg Asn Ser Ile His Pro Arg Pro Arg Ser Gln Trp
145                 150                 155                 160
Thr Ile Val Leu Val His His Cys Pro Ile Gly Gln Lys Ile Ser Ile
                165                 170                 175
Arg
```

<210> 37476
<211> 171
<212> PRT
<213> A.fumigatus

```
<400> 37476
Met Thr Pro Asn Leu Gly Gln Gly Ala Asn Cys Ala Ile Glu Asp Ala
1               5                   10                  15
Ala Ala Leu Thr Asn Lys Leu His Asp Ala Leu Lys Val Lys Asn Pro
            20                  25                  30
Gly Arg Lys Leu Ser Asp Asp Glu Ile Glu Gln Ala Leu Ser Glu Phe
        35                  40                  45
```

```
Ser Asn Ile Gln Val Lys Arg Ile Ser Lys Ile Tyr Asn Val Ser Trp
    50                  55                  60
Thr Thr Ala Arg Leu Gln Thr Arg Ala Asn Leu Val Tyr Arg Leu Leu
65                  70                  75                  80
Leu Arg Tyr Phe Ile Pro Tyr Ala Gly Asp Lys Pro Ala Lys Arg Val
                85                  90                  95
Leu Arg Ile Phe Glu Gly Ala Thr Ala Leu Asp Phe Ile Pro Leu Pro
            100                 105                 110
Thr Arg Ser Gly Pro Gly Trp Thr Pro Gln Lys Arg Glu Glu Thr Phe
        115                 120                 125
Phe Pro Arg Trp Thr Ile Ala Leu Ala Phe Leu Val Leu Ile Ser Val
    130                 135                 140
Val Ser Ile Asn Leu Lys Pro Val Gly Tyr Tyr Ser Tyr Trp Leu Ser
145                 150                 155                 160
Leu Leu Gly Gly Phe Leu Met Asp Arg Ile Arg
                165                 170
```

<210> 37477
<211> 64
<212> PRT
<213> A.fumigatus

<400> 37477

```
Gln Arg Glu His Arg Ser Ala Pro Trp Ser Ser Tyr Pro Arg Thr Lys
1               5                   10                  15
Thr His Arg Arg Asn Arg Val Arg Lys Ile Phe Arg Met Met Asp Lys
            20                  25                  30
Asp Glu Asn Gly Ser Leu Asp Met Glu Glu Phe Lys Glu Gly Ser Lys
        35                  40                  45
Arg Asp Glu Thr Ile Val Ser Ala Leu Ser Leu Tyr Asp Gly Leu Val
    50                  55                  60
```

<210> 37478
<211> 486
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (56),(185)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37478

```
Ser His Leu Leu Glu Phe Val Leu Ile Leu Ile Gln Cys Ala Gly Gln
1               5                   10                  15
Ala Pro Cys Ser Arg Cys Arg Asp Leu Asn Leu Leu Cys Thr Gly His
            20                  25                  30
Ala Thr Thr Leu Gly Ser Asn Glu Leu Pro Ala Leu Gln Arg Arg His
        35                  40                  45
Gln Leu Ala Ser Ser Ser Ser Xaa Pro Leu Thr His His Pro Arg Asn
    50                  55                  60
Lys Leu Lys Ala Leu Thr Lys Asp Arg Leu Pro His Leu Gln Cys Leu
65                  70                  75                  80
Ala Asn Gly Leu Leu Ser Asp Arg Arg Asp Arg Ile Thr Leu Ile Asp
                85                  90                  95
Arg Arg Gly Arg Val Phe Pro Ala Asp Gly Ser Leu Arg Lys Leu Arg
```

```
                100                 105                 110
Ala Arg Cys Leu Pro Leu Leu Phe His Val His Arg Glu Ser Cys Pro
        115                 120                 125
Asp Lys Leu Gly Cys Leu Cys Pro Gln Pro Ala Arg Ile Thr Glu His
    130                 135                 140
Pro Leu Trp Asn Gly Val Ser Ala Pro Pro Pro Pro His Thr Pro Ala
145                 150                 155                 160
Leu Cys Thr Thr Thr Arg Gly Tyr Thr Asp Ala Ala Arg Val Met Tyr
                165                 170                 175
Thr Trp Ser Leu Arg Gly Leu Ala Xaa Met Leu Ser Asp Thr Ser Arg
            180                 185                 190
Ala Thr Ser Asp Glu Ala Leu Ala Thr Ala Ile Ser Leu Ala Cys Phe
        195                 200                 205
Glu Val Gln Asn Cys Thr Asn Pro Asp Ser Trp Leu Arg His Ala Ala
    210                 215                 220
Gly Ile Lys Thr Met Met Arg Leu Arg Gly Pro Gln Ala His Leu His
225                 230                 235                 240
Gly Phe Gly Arg Ala Met Tyr Ile Val Tyr Arg Asn Leu Met Val Thr
                245                 250                 255
Ala Ala Leu Leu Ser Gly Glu Glu Cys Leu Leu Gln Glu Pro Glu Trp
            260                 265                 270
Gln Asp Leu Asn Arg Gln Ile Ala Ala Asp Asn Ala Arg Arg Pro Asp
        275                 280                 285
Ser Ser Ala Tyr Thr Asp Val Ala Glu Arg Gly Phe Asn Glu Ile Ser
    290                 295                 300
Lys Val Pro Gly Tyr Val Lys Arg Val Arg Glu Leu Leu Ala Leu Pro
305                 310                 315                 320
Ser Lys Lys Arg Ala Ser Leu Gln Pro Ala Leu Leu Arg Asp Val Leu
                325                 330                 335
Ala Ala Arg Ala Ala Leu Arg Gly Ile His Thr Glu Phe Gly Val Ala
            340                 345                 350
Val Ser Met Val Arg Ala Gly Gln Asn Glu Gln Gln Gly Phe Ile Gly
        355                 360                 365
Pro Leu Pro Phe Val Phe Phe Asp Gly Phe Ser Cys Leu Tyr Val Arg
    370                 375                 380
Gly Ile Arg Ser Ala Leu Val Ile Leu Asn Asn Leu Ile Leu Ala Met
385                 390                 395                 400
Asp Glu Lys Gln Arg Thr Thr Ile Glu Ala Glu Asn Arg Thr Leu Ser
                405                 410                 415
Asp Gly Ile Pro Asp Val Val Ser Glu Pro Lys Arg Glu Glu Tyr Glu
            420                 425                 430
Ser Pro Leu Arg Pro Pro Lys Ser Pro Gly Arg Ser Arg Lys Pro Ala
        435                 440                 445
Leu Ala Ile Arg Ser Leu Ile Ser Pro Gln Thr Arg Glu Pro Pro Thr
    450                 455                 460
Ser Asn Met Met Asp Arg Leu Val Thr Thr Met Gly Met Asp Gly Val
465                 470                 475                 480
Arg Val Thr Leu Leu Glu
                485
```

<210> 37479
<211> 90
<212> PRT
<213> A.fumigatus

<400> 37479

```
Thr Gly Asn Leu Gln Gly Thr Ala Ala Ala Trp Ser Ala Pro Arg Pro
1               5                  10                  15
Cys Val Gln Ser Arg Tyr Gly Val Pro Pro Leu Pro Ala Ser Arg Ser
            20                  25                  30
Pro Ser Gly Ser His Lys Pro Phe Pro Ala Ala Arg Gly Ser Leu Arg
        35                  40                  45
His His Leu Arg Pro Gly Cys Ala Pro Ala Gly Ser His Ser Pro Ala
    50                  55                  60
Arg Gly Arg Pro Ala Ser Ala Pro Thr Leu Val Cys Gly Cys Pro Ala
65                  70                  75                  80
Ala Arg Ser Ile His Pro Asp His Ser Trp
                85                  90
```

<210> 37480
<211> 117
<212> PRT
<213> A.fumigatus

<400> 37480

```
Arg Ser Leu Ala Arg Glu Pro Arg Lys Thr Tyr Ser Gly Lys Ser Ser
1               5                  10                  15
Val Ser Pro Pro Pro Leu Asn Cys Ser Ala Glu Gly Lys Ile Arg Leu
            20                  25                  30
Ala Asn Ile Met Ser Pro Thr Cys Arg Phe Glu Ala Gln Leu Thr Ala
        35                  40                  45
Val Lys Glu Arg Leu Glu Ala Ala Lys Gln Gly Ser Thr Arg Gly Leu
    50                  55                  60
Pro Ser Met Asp Gly Ser Gly Gly Phe Ser Phe Val Gly Ser Arg Ile
65                  70                  75                  80
Ala Lys Pro Leu Arg Gly Gly Gly Gly Gly Gly Pro Glu Ser Ser Ala
                85                  90                  95
Pro Val Ala Gly Val Gln Ser Gln Glu Ser Gly Lys Arg Thr Ser Trp
            100                 105                 110
Phe Phe Asp Arg Arg
        115
```

<210> 37481
<211> 535
<212> PRT
<213> A.fumigatus

<400> 37481

```
Leu Ser Ser Leu Val Arg Arg Leu Val Pro Ala Cys Gly Glu Asp Lys
1               5                  10                  15
Ala Lys Val Asn Ala Glu Leu Ser Pro Ala Glu Leu Lys Gln Leu Leu
            20                  25                  30
Arg Lys Ala Gln Thr Gln Val Ile Asn Phe Glu Asn Tyr Met Ser Ala
        35                  40                  45
Leu Glu Ser Glu Val Gln Val Trp Arg Ser Gly Glu Thr Val Pro Lys
    50                  55                  60
Asp Arg Trp Thr Pro Ala Arg Gly Ser Glu Ala Val Ser Ala Ala Lys
65                  70                  75                  80
Ala Glu Ala Arg Ala Ser Val Thr Arg Pro Gly Thr Pro Ser Arg Leu
                85                  90                  95
Gln Asp Thr Pro Arg Ser Glu Thr Pro Arg Pro Asp Ser Arg Phe Gly
            100                 105                 110
```

```
Asp Arg Ser Ser Thr Pro Ser Leu Val Leu Glu Lys Asp Glu Arg Glu
        115                 120                 125
Glu Phe Leu Arg Arg Glu Asn Glu Leu Gln Asp Gln Ile Ala Glu Arg
    130                 135                 140
Glu Ser His Ile Ala Asn Val Glu Arg Ser Leu Arg Glu Ala Arg Glu
145                 150                 155                 160
Glu Leu Lys Asn Leu Lys Glu Asn Ser Ala Arg Ser Gly Lys Asp Asn
                165                 170                 175
Glu Lys Leu Ser Ala Glu Val Asn Glu Leu Arg Met Gln Leu Glu Lys
            180                 185                 190
Val Ser Tyr Glu Gly Lys Glu Ala Ser Ile Thr Met Asp Ser Leu Arg
        195                 200                 205
Glu Ala Asn Ala Glu Leu Thr Ala Glu Leu Asp Asp Val Lys Gln Gln
    210                 215                 220
Leu Leu Asp Val Arg Met Lys Ala Lys Glu Thr Ser Ala Ala Leu Asp
225                 230                 235                 240
Glu Lys Glu Lys Lys Lys Ala Glu Lys Met Ala Lys Met Met Ala Gly
                245                 250                 255
Phe Asp Leu Gly Gly Asp Val Phe Ser Asp Asn Glu Arg Lys Leu Gln
            260                 265                 270
Asp Leu Ile Gln Arg Val Asp Ala Leu His Lys Val Ser Glu Ala Gly
        275                 280                 285
Glu Pro Val Ala Pro Asp Asp Leu Leu Glu Leu Arg Thr Ser Leu Val
    290                 295                 300
Glu Thr Gln Gly Phe Ile Arg Gln Ala Glu Leu Thr Met Asn Asp Arg
305                 310                 315                 320
Gly Glu Leu Ser Glu Leu Gln Asp Ser Arg Arg Leu Glu Leu Glu Gln
                325                 330                 335
Lys Leu Ala Asp Leu Glu Arg Asp Tyr Glu Ser Leu Leu Glu Arg Asn
            340                 345                 350
Leu Gly Glu Gly Asp Val Glu Glu Ile Arg Glu Arg Leu Glu Lys Val
        355                 360                 365
Tyr Val Thr Arg Lys Glu Thr Glu Met Gln Ala Ala Ala Glu Leu Arg
    370                 375                 380
Ser Glu Ile Ala Arg Lys Asp Glu Glu Leu Thr Lys Leu Arg Gln Ser
385                 390                 395                 400
Leu Ala Asp Ser Gln Ser Lys Ala Ser Thr Asn Gly Ala Ser Gly Lys
                405                 410                 415
Asn Leu Gln Gln Gln Ile Ala Glu Phe Asp Ala Met Lys Lys Ser Leu
            420                 425                 430
Met Arg Asp Leu Gln Asn Arg Cys Glu Arg Val Val Glu Leu Glu Ile
        435                 440                 445
Ser Leu Asp Asp Ala Arg Glu Gln Tyr Asn Asn Val Leu Arg Ser Ser
    450                 455                 460
Asn Asn Arg Ala Gln Gln Lys Lys Met Ala Phe Leu Glu Arg Asn Leu
465                 470                 475                 480
Glu Gln Leu Thr His Val Gln Arg Gln Leu Val Glu Gln Asn Ser Ser
                485                 490                 495
Leu Lys Lys Glu Val Ala Ile Ala Glu Arg Lys Leu Ile Ala Arg Asn
            500                 505                 510
Glu Arg Ile Ala Ser Leu Glu Gly Leu Leu Gln Glu Ser Gln Glu Lys
        515                 520                 525
Leu Thr Gln Ala Asn His Arg
    530                 535
```

<210> 37482

<211> 148
<212> PRT
<213> A.fumigatus

<400> 37482
Arg Ala Lys Ser Thr Ser Thr Ser Thr Thr Pro Pro Glu Arg His Leu
1 5 10 15
Pro Ser Val Thr Pro Leu Pro Pro Val His Phe Gln Ser Pro Ser Thr
20 25 30
Tyr Lys Met Ala Asp Ala Pro Arg Gly Arg Gly Gly Phe Gly Ser Arg
35 40 45
Gly Asp Arg Gly Gly Asp Arg Gly Arg Gly Arg Gly Arg Arg Gly Arg
50 55 60
Arg Gly Gly Gly Lys Glu Gln Glu Lys Glu Trp Gln Pro Val Thr Lys
65 70 75 80
Leu Gly Arg Leu Val Lys Ala Gly Lys Ile Thr Ser Met Glu Gln Ile
85 90 95
Tyr Leu His Ser Leu Pro Val Lys Glu Tyr Gln Ile Val Asp Phe Phe
100 105 110
Leu Pro Lys Leu Lys Asp Glu Val Met Lys Val Arg Asn Glu Gln Phe
115 120 125
His Leu Arg Ile Ser Ser Arg Glu Gln Leu Phe Thr Ile Asn Ser Trp
130 135 140
Thr Met Gly Lys
145

<210> 37483
<211> 85
<212> PRT
<213> A.fumigatus

<400> 37483
Leu Ile Pro Ala Pro Arg Gly Thr Gly Leu Val Ala Ser Pro Ala Val
1 5 10 15
Lys Arg Leu Leu Gln Leu Ala Gly Val Gln Asp Ala Tyr Thr Ser Ser
20 25 30
Ser Gly Ser Thr Lys Thr Leu Glu Asn Thr Leu Lys Ala Thr Phe Leu
35 40 45
Ala Val Val Asn Thr Tyr Gly Phe Leu Thr Pro Asn Leu Trp Lys Glu
50 55 60
Thr Lys Leu Ile Arg Ser Pro Leu Glu Glu Phe Ser Asp Val Leu Arg
65 70 75 80
Gln Gly Lys Lys Tyr
85

<210> 37484
<211> 93
<212> PRT
<213> A.fumigatus

<400> 37484
Ile Lys Pro Val Gln Lys Gln Thr Arg Ala Gly Gln Arg Thr Arg Phe
1 5 10 15
Lys Ala Val Val Val Ile Gly Asp Ser Glu Gly His Ile Gly Leu Gly
20 25 30
Ile Lys Thr Ser Lys Glu Val Ala Thr Ala Ile Arg Ala Ala Ile Ile

```
        35                  40                  45
Ile Ala Lys Leu Ser Val Leu Pro Val Arg Arg Gly Tyr Trp Gly Thr
    50                  55                  60
Asn Leu Gly Glu Pro His Ser Leu Pro Val Lys Gln Ser Ala Lys Cys
65                  70                  75                  80
Gly Ser Val Ser Val Arg Val Arg Tyr Asp Arg Thr Arg
                85                  90
```

<210> 37485
<211> 129
<212> PRT
<213> A.fumigatus

<400> 37485

```
Glu Tyr Leu Ala Ile Phe Gly Pro Ala Ala Thr Thr Trp Phe Ala Phe
1               5                   10                  15
Leu Gln Arg Asn Val Val Leu Lys Ser His Lys Ala Thr Ile Ile Ala
            20                  25                  30
Arg Val Val Ala Asp Gln Gly Leu Phe Thr Pro Thr His Leu Thr Cys
        35                  40                  45
Phe Leu Thr Ser Met Ala Ile Met Glu Gly Thr Asp Pro Ile Glu Lys
    50                  55                  60
Trp Arg Thr Ser Phe Leu Pro Ser Tyr Lys Ala Asn Leu Thr Ile Trp
65                  70                  75                  80
Pro Leu Val Gln Gly Val Asn Phe Ser Ile Val Pro Leu Glu Tyr Arg
                85                  90                  95
Val Leu Val Val Asn Val Val Ser Leu Gly Glu Leu Cys Pro Ala His
            100                 105                 110
Arg Leu Ala Phe Thr Pro Leu Thr Arg Leu Asp Gln Ala Gly Thr Ala
        115                 120                 125
Tyr
```

<210> 37486
<211> 292
<212> PRT
<213> A.fumigatus

<400> 37486

```
Leu Leu Pro Val Glu Glu His Arg Thr Asn Val Gly Ser Cys Ile Asp
1               5                   10                  15
Leu Lys Pro Glu Asn Leu Leu Tyr Leu Thr Arg Asp Pro Lys Ser Pro
            20                  25                  30
Leu Val Leu Ala Asp Phe Gly Ile Ala Lys Met Leu Glu Asn Pro Thr
        35                  40                  45
Glu Val Leu Thr Thr Met Ala Gly Ser Phe Gly Tyr Ala Ala Pro Glu
    50                  55                  60
Val Met Leu Lys Gln Gly His Gly Lys Ala Val Asp Leu Trp Ser Leu
65                  70                  75                  80
Gly Val Ile Thr Tyr Thr Leu Leu Cys Gly Tyr Ser Pro Phe Arg Ser
                85                  90                  95
Glu Ser Leu Ser Asp Leu Ile Glu Glu Cys Arg Ala Ala Arg Ile Val
            100                 105                 110
Phe His Glu Arg Tyr Trp Arg Asp Val Ser Lys Asp Ala Lys Asp Phe
        115                 120                 125
Ile Leu Ser Leu Leu Gln Pro Asp Pro Ala Lys Arg Pro Thr Ser Gln
```

```
    130                 135                 140
Asp Ala Leu Lys His Pro Trp Leu Thr Gly Glu Ser Ala Ser Asp Arg
145                 150                 155                 160
Asp Leu Leu Pro Glu Ile Arg Ala Tyr Ile Ala Arg Ser Arg Leu Arg
                165                 170                 175
Arg Gly Ile Glu Ile Ile Lys Leu Ala Asn Arg Ile Glu Ala Leu Lys
            180                 185                 190
Met Gln Glu Asp Glu Glu Gly Asp Ile Pro Ser Pro Ala Glu Met Ala
        195                 200                 205
Ala Ala Ala Asp Glu Pro Ser Lys Ser Ser Asp Thr Thr Ala Phe Pro
    210                 215                 220
Pro Leu Glu Gly Ser Glu Ala Asn Gly Ser Ser Ser Pro Ala Pro Val
225                 230                 235                 240
Asp Gly Thr Thr Gly Gly Thr Lys Lys Arg Ser Leu Ser Lys Val Ala
                245                 250                 255
Arg Gly Ala Ile Phe Arg Glu Val Val Leu Ala Lys Val Arg Glu Met
            260                 265                 270
Lys Glu Asn Glu Glu Arg Glu Arg Ile Glu Arg Glu Ala Arg Glu Arg
        275                 280                 285
Thr Ala His Ala
    290
```

<210> 37487
<211> 113
<212> PRT
<213> A.fumigatus

```
<400> 37487
Val Asp Ser Phe Ala Ala Glu Pro Arg Gly Cys Ile Asp Val Ala Asn
1               5                   10                  15
Asp Ser Thr Glu Pro Pro Glu Val Gln Phe Ile Glu Leu Pro Ser Thr
            20                  25                  30
Ser Asp Thr Pro Arg Pro Ile Pro Met His Pro His Ile Tyr Ser Asn
        35                  40                  45
Gly Ile Ile Cys Leu Asp Leu Leu Gly Ser Ala Gly Trp Ser Pro Val
    50                  55                  60
Gln Thr Val Glu Ser Val Cys Met Ser Ile Gln Ser Met Leu Thr Ala
65                  70                  75                  80
Asn Asn Arg Asn Glu Arg Pro Pro Gly Asp Ala Glu Phe Val Ser Tyr
                85                  90                  95
Asn Lys Arg Arg Pro Arg Asp Ile Ala Phe Met Tyr Asp Asp Asp Asn
            100                 105                 110
Val
```

<210> 37488
<211> 163
<212> PRT
<213> A.fumigatus

```
<400> 37488
Val Ser His Cys Val Cys Phe Cys Leu Leu Ser Phe Ala Phe Cys Ser
1               5                   10                  15
Met Glu Leu Leu Ser Leu Trp Gln Lys Asp Ala Asn His Gly Met Val
            20                  25                  30
Val Leu Val Ser Ser Met Phe Asn Lys Leu Ser Gly Gln Pro Glu Ser
```

```
        35                  40                  45
Tyr Glu Lys Lys Tyr Val Phe Gln Ala Leu Ser Leu Leu Val Tyr His
    50                  55                  60
Leu Arg Pro Thr Glu Asp Ile Met Leu Thr Ser Ser Arg Ala Leu Tyr
65                  70                  75                  80
Arg Phe Gly Arg Thr Leu Gly Ala Gly Thr Tyr Gly Ile Val Arg Glu
                85                  90                  95
Ala Glu Ser Ser Gly Gly Lys Val Ala Ile Lys Ile Ile Leu Lys Lys
            100                 105                 110
Asn Val Arg Gly Asn Glu Arg Met Val Tyr Asp Glu Leu Glu Met Leu
        115                 120                 125
Gln Ala Leu Asp His Pro Asn Ile Val His Phe Val Asp Trp Phe Glu
    130                 135                 140
Ser Lys Val Gly Ala Gly Ala Ser Leu Leu Thr Val Arg Arg Ser Gln
145                 150                 155                 160
Ser Asp Trp
```

<210> 37489
<211> 159
<212> PRT
<213> A.fumigatus

<400> 37489

```
Leu Pro Ile Leu Leu Pro Ile Trp Leu Leu Arg Arg Ser Gln Pro Asn
1               5                   10                  15
Asp Pro Val Pro Ser Cys Ala Ala Gln Ile Gln Thr Asn Thr Thr Thr
            20                  25                  30
Ile Ala Glu Val Leu Gly Arg Val Tyr Gly Val Ile Thr Arg Arg Arg
        35                  40                  45
Gly Arg Ile Ile Ser Glu Thr Met Lys Glu Gly Thr Pro Phe Phe Thr
    50                  55                  60
Ile Leu Ala Leu Leu Pro Val Ala Glu Ser Phe Gly Phe Ala Glu Glu
65                  70                  75                  80
Ile Arg Lys Arg Thr Ser Gly Ala Ala Gln Pro Gln Leu Ile Phe Ala
                85                  90                  95
Gly Phe Glu Ala Leu Asn Glu Asp Pro Phe Trp Val Pro Ala Thr Glu
            100                 105                 110
Glu Glu Leu Glu Asp Leu Gly Glu Leu Ala Asp Arg Glu Asn Val Ala
        115                 120                 125
Lys Arg Tyr Met Asp Ala Val Arg Arg Arg Lys Gly Leu Val Val Gln
    130                 135                 140
Gly Arg Lys Leu Ile Asp Ala Glu Lys Gln Lys Thr Leu Lys Lys
145                 150                 155
```

<210> 37490
<211> 196
<212> PRT
<213> A.fumigatus

<400> 37490

```
Asn Ala Phe Leu Ala Val Gly Asp Lys Thr Thr Arg Phe Arg Arg Lys
1               5                   10                  15
Ile Gln Leu Glu Ile Val Arg Ala Lys Gly Leu Pro Pro Leu Leu Arg
            20                  25                  30
Leu Leu Gln Ser Ser Tyr Leu Pro Leu Ile Leu Ser Ala Val Ala Cys
```

```
        35                  40                  45
Ile Arg Asn Ile Ser Ile His Pro Leu Asn Glu Ser Pro Ile Ile Asp
    50                  55                  60
Ala Gly Phe Leu Lys Pro Leu Val Asp Leu Leu Gly Ser Thr Asp Asn
65                  70                  75                  80
Glu Glu Ile Gln Cys His Ala Ile Ser Thr Leu Arg Asn Leu Ala Ala
                85                  90                  95
Ser Ser Asp Arg Asn Lys Glu Leu Val Leu Gln Ala Gly Ala Val Gln
            100                 105                 110
Lys Cys Lys Asp Leu Val Leu Arg Val Pro Leu Ser Val Gln Ser Glu
        115                 120                 125
Met Thr Ala Ala Ile Ala Val Leu Ala Leu Ser Asp Glu Leu Lys Pro
    130                 135                 140
His Leu Leu Asn Leu Gly Val Phe Asp Val Leu Ile Pro Leu Thr Asn
145                 150                 155                 160
Ser Glu Ser Ile Glu Val Gln Gly Asn Ser Ala Ala Ala Leu Gly Asn
                165                 170                 175
Leu Ser Ser Lys Gly Thr Ser Pro Ala Ile Ala Leu Leu Leu Ser Gln
            180                 185                 190
Leu Arg Lys Tyr
        195
```

<210> 37491
<211> 112
<212> PRT
<213> A.fumigatus

```
<400> 37491
Ala Pro Val Gly Asp Tyr Ser Ile Phe Val Arg Asp Trp Ala Asp Pro
1               5                   10                  15
Asn Gly Gly Ile His Gly Tyr Leu Lys Arg Phe Leu Ala Ser Gly Asp
            20                  25                  30
Pro Thr Phe Gln His Ile Ala Ile Trp Thr Leu Leu Gln Leu Leu Glu
        35                  40                  45
Ser Glu Asp Lys Arg Leu Ile Gly Tyr Ile Ser Lys Ser Asp Asp Ile
    50                  55                  60
Val Gln Met Val Lys Thr Ile Ser Asp Lys Asn Ile Glu Ser Asp Glu
65                  70                  75                  80
Glu Asp Gly Glu Asp Gly Glu Ala Glu Val Ile Ala Leu Ala Arg Arg
                85                  90                  95
Cys Leu Gly Leu Leu Gly Asn Gly Pro Lys Gln Thr Leu Val Glu Gly
            100                 105                 110
```

<210> 37492
<211> 251
<212> PRT
<213> A.fumigatus

```
<400> 37492
Val Glu Met Ala Ser Ser Leu Pro Ser Leu Ala Ile Pro Gly Gln Arg
1               5                   10                  15
Leu Gly Pro Val Ser Ser Tyr Ser Ala Gly Pro Gly Thr His Val Gln
            20                  25                  30
Asn Ala Asn Ile Tyr Ala Ser Ile Ala Gly Pro Val Val Leu Gln Gln
        35                  40                  45
Ala Gln Pro Ser Ser Lys Leu Lys Ser Ile Leu Ser Val Ser Arg Asn
```

```
    50                  55                  60
Leu Pro Arg Lys Thr Asp Pro Ser Thr Ser Thr Thr Pro Val Lys Ala
65                  70                  75                  80
Thr Thr Thr Thr Lys Pro Lys Leu Arg Tyr Asn Thr Leu Pro Ala Val
                85                  90                  95
Asp Ser Ile Val Leu Ala Arg Val Thr Arg Val Gln Lys Arg Gln Ala
            100                 105                 110
Thr Val Ser Ile Leu Val Val Leu Asp Glu Ser Ala Gly Ser Gln Asp
        115                 120                 125
Pro Asp Pro Ser Lys Thr Ala Ser Asp Asn Asp Asn Ile Val Ser Ile
    130                 135                 140
Leu Ala Ser Ala Ala Asn Pro Glu Asn His Ser Asn Ser Asp Glu Leu
145                 150                 155                 160
Arg Phe Gln Ala Leu Ile Arg Lys Glu Asp Val Arg Ala Val Glu Lys
                165                 170                 175
Asp Arg Val Val Met Asp Glu Met Phe Arg Val Gly Asp Ile Val Arg
            180                 185                 190
Gly Ser Val Ile Ser Leu Gly Asp Gln Ser Phe Tyr Tyr Leu Thr Thr
        195                 200                 205
Ala Arg Asn Asp Leu Gly Val Val Met Ala Arg Ser Glu Ala Gly Asn
    210                 215                 220
Met Met Phe Pro Val Ser Trp Lys Glu Met Arg Asp Pro Val Thr Gly
225                 230                 235                 240
Ala Ala Glu Leu Arg Lys Val Ala Arg Pro Phe
                245                 250
```

<210> 37493
<211> 161
<212> PRT
<213> A.fumigatus

```
<400> 37493
Pro Phe Ile Met Ala Gly Pro Gln Arg Pro Ala Ser Gly Leu Pro Thr
1                   5                   10                  15
Arg Arg Thr Gly Thr Arg Gln Ala Val Arg Arg Pro Asn Ser Ser Ala
            20                  25                  30
Thr Glu Arg Arg Thr Ser Leu Ala Ile Pro Ala Lys Ala Ser Val Pro
        35                  40                  45
Asn Ala Ser Arg Leu Lys Ser Pro Ser Asp Thr Pro Ser Ile Ser Ala
    50                  55                  60
Ile Arg Asn Gln Arg Asp Tyr Glu Arg Glu Ile Asn Glu Asp Thr Ser
65                  70                  75                  80
Ile His Val Val Val Arg Cys Arg Gly Arg Asn Asp Arg Glu Ile Lys
                85                  90                  95
Glu Asn Ser Gly Val Val Val Ser Thr Glu Gly Ala Lys Gly Lys Thr
            100                 105                 110
Val Glu Leu Ser Met Gly Pro Asn Ala Val Ser Asn Lys Ala Tyr Thr
        115                 120                 125
Phe Asp Lys Val Phe Ser Ala Ala Ala Asp Gln Val Thr Val Tyr Glu
    130                 135                 140
Asp Val Val Leu Pro Ile Val Asn Glu Val Ser Tyr Leu Leu Gln Thr
145                 150                 155                 160
Leu
```

<210> 37494

<211> 214
<212> PRT
<213> A.fumigatus

<400> 37494
His Val Phe Arg Ala Ser Ser Gly Lys Gly Lys Leu Thr Ala Ser Arg
1 5 10 15
Glu Ser Lys Leu Thr Arg Leu Leu Gln Asp Ser Leu Gly Gly Arg Thr
20 25 30
Lys Thr Cys Ile Ile Ala Thr Ile Ser Pro Ser Arg Ser Asn Leu Glu
35 40 45
Glu Thr Ile Ser Thr Leu Asp Tyr Ala Phe Arg Ala Lys Asn Ile Arg
50 55 60
Asn Lys Pro Gln Ile Asn Tyr Met Ala Lys Lys Thr Leu Leu Arg Glu
65 70 75 80
Phe Thr Leu Glu Ile Glu Lys Leu Lys Gly Glu Leu Ile Ala Thr Arg
85 90 95
His Arg Asn Gly Val Tyr Met Thr Pro Asp Ala Tyr Glu Gln Met Thr
100 105 110
Met Glu Ser Glu Ser Arg Arg Ile Val Asn Glu Glu Gln Arg Ala Lys
115 120 125
Ile Glu Ser Met Glu Ser Ser Leu Arg Asn Lys Val Gln Glu Leu Phe
130 135 140
Thr Leu Thr Ser Asn Phe Asn Asn Leu Lys Lys Asp His Glu Asp Thr
145 150 155 160
Arg Ala Ala Leu Asn Glu Thr Asn Glu Phe Leu Glu Lys Thr Glu Ile
165 170 175
Val Leu Lys Asp Thr Arg Ala Thr Leu Glu Glu Glu Glu Met Leu Arg
180 185 190
Lys Ala His Gln Asp Thr Glu Ala Gln Leu Arg Asp Ile Gly Ser Asp
195 200 205
Leu Val Leu Thr Leu Glu
210

<210> 37495
<211> 164
<212> PRT
<213> A.fumigatus

<400> 37495
Thr Val Gly Asp Val Glu Gly Leu His Ala Lys Leu Glu Arg Lys Ala
1 5 10 15
Gly Leu Glu Ala Thr Asn Arg Glu Lys Trp Glu Thr Ser Val Asp Glu
20 25 30
Val Thr Asp Val Thr Ser Met Val Asp Ser Arg Val Gly Ser Phe Leu
35 40 45
Asp Arg His Ser Lys Leu Ala Glu Asn Phe Ile Thr Lys Ile Asn Thr
50 55 60
Phe Val Glu Gly Glu Leu Ile Gln Phe Gln Ser Thr Glu Glu Ala Leu
65 70 75 80
Arg Asn Tyr Asn Leu Ser Phe Glu Lys Ala Leu Arg Glu Ala Gln Ala
85 90 95
Gln Thr Tyr Asn Ser His Asp Gln Met Asn Asn Val Leu Glu Glu Ile
100 105 110
Lys Val Leu Arg Glu Glu Val Lys Gly Arg Val Gly Glu Gly Leu Asn
115 120 125

```
Gly Leu Ser Ala Ala Ala Ala Arg Ile Ser Lys Glu Val Ile Gly Glu
    130                 135                 140
Phe Ser Glu Phe His Ala Gln Val Ser Trp Ile Pro Val Leu Arg Pro
145                 150                 155                 160
Cys Thr Lys Cys
```

<210> 37496
<211> 491
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (347)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37496

```
Leu His Ala Ser Tyr Ser Ala Leu Gly Lys Asp Leu Lys Ser Met Phe
1               5                   10                  15
Glu Asp Met Val Ala His Val Asn Ser Gln Lys Ala Glu Ile His Gln
            20                  25                  30
Leu Arg Leu Gln Leu Gln Glu Ala Asn Gln Gln Ser Val Glu Ala Asn
        35                  40                  45
Arg Lys Ala Ser Ala His Leu Ala Gln Val Met Glu Glu Glu His Ala
    50                  55                  60
His Ala Glu Ala Glu Arg Asp His Leu Met Ser Gln Ile Arg Ser Leu
65                  70                  75                  80
Ile Glu Glu Ser Arg Gln Arg Gln Phe Gly Arg Leu Lys Gly Arg Val
                85                  90                  95
Glu Cys Val Arg Thr Asp Ile Met Ser Ser Gly Asp Ser Leu Glu Gln
            100                 105                 110
Ala Thr Thr His Tyr Asp Arg Gln Val Asp Glu Trp Val Phe Lys Ser
        115                 120                 125
Glu Gln Phe Ala Lys Asp Val Ile Ala Ser Arg Asp Glu Leu Lys Thr
    130                 135                 140
Lys Met Gln His Asp Trp Glu Val Arg Asn His Leu Ser Ile Ser Asp
145                 150                 155                 160
Val Ser Ile Leu Ile Ser Gln Thr Phe Asp Gln Arg Asn Ala Ser Ile
                165                 170                 175
Gln Lys Val Thr Glu Ser Val His Glu Glu Thr Val Arg Ile Val Asp
            180                 185                 190
Ala Gln Met Lys Asp Met Ser Arg Gln Met Gly Ala Leu Asp Asp Phe
        195                 200                 205
Val Ala Lys Ala Arg Ala Gln Asn Gly Gln Tyr Cys Asp Ala His Met
    210                 215                 220
Thr Ser Leu Gln Thr Met Ala Ser Asn Thr Gln Gln Ser Tyr Ala Ala
225                 230                 235                 240
Tyr Glu Glu His Leu Ser Ser Ser Arg Asp Arg Ile Thr Cys Leu Gln
                245                 250                 255
Glu Asp Ala Asn Gln Gln Met Glu Ser Leu Gln Glu Leu Thr Leu Pro
            260                 265                 270
Leu Ser Asp Glu Val Gln Lys Pro Leu Ser Glu Leu Arg Thr Asn Ile
        275                 280                 285
Arg Glu Arg Pro Leu Gln Glu Tyr Ile Pro Thr Gly Ile Thr Pro Gln
    290                 295                 300
```

```
Lys Arg His Tyr Glu Tyr Pro Thr Thr Leu Pro Arg Thr Glu Ser His
305                 310                 315                 320
Asp Ala Leu Val Lys Arg Met Arg Ile Ser Lys Glu Leu Glu Ala Leu
                325                 330                 335
Pro Phe Ser Asn Gly Glu Pro Ser Ala Ser Xaa Thr Ser Gln Asp Ser
            340                 345                 350
Ser Thr Arg Gly Thr Pro Ser Lys Gly Phe Val Tyr His Asp Val Glu
        355                 360                 365
Asp Glu Val Gly Ala Gln Gln Pro Pro Ser Thr Ala Ala Thr Pro Ser
    370                 375                 380
Asn Thr Gly Leu Arg Glu Val Asp Ala Asn Ile Val Ala Lys Gln Leu
385                 390                 395                 400
Ala Cys Asp Thr Asp Asp Asp Pro Thr Ala Thr Gln Ser Lys Ser Ser
                405                 410                 415
Ile Ala Ala Asn Gly Arg Val Ser Leu Ser Thr Asp Lys Pro Thr Glu
            420                 425                 430
Ile Glu Glu Pro Asp Ala Pro Pro Ala Lys Arg His Cys Ser Ser Ser
        435                 440                 445
Gly Val Thr Asp Asn Lys Leu Pro Gln Lys Met Leu Thr Lys Lys Met
    450                 455                 460
Ala Gly Met Met Glu Gly Arg Glu Asn Val Pro Leu Pro Gly Ser Arg
465                 470                 475                 480
Gly Arg Arg Leu Arg Ser Gln His Ala Ser Asp
                485                 490
```

<210> 37497
<211> 69
<212> PRT
<213> A.fumigatus

<400> 37497

```
Val Met Thr Thr Ser Asp His Val Arg Gly Ala Asp Asp Pro Leu Glu
1               5                   10                  15
His Gly Pro Tyr Asn Ala Val Cys Ala Thr Cys Gly Phe Val Tyr Ile
            20                  25                  30
Phe Leu Phe Gln Ser Pro Ser Ser His Asn Lys Arg Trp Pro Asn Tyr
        35                  40                  45
Phe Asp Ile Tyr Gly Glu Gly Gln Leu Thr Asp Ile Gln Arg Pro Thr
    50                  55                  60
Glu Gln Phe Ser Cys
65
```

<210> 37498
<211> 218
<212> PRT
<213> A.fumigatus

<400> 37498

```
Arg Lys Gln Met Leu Ala Gly Tyr Asn Cys Thr Ile Phe Ala Tyr Gly
1               5                   10                  15
Gln Thr Gly Thr Gly Lys Thr Tyr Thr Met Ser Gly Asp Met Thr Asp
            20                  25                  30
Thr Leu Gly Ile Leu Ser Asp Asn Ala Gly Ile Ile Pro Arg Val Leu
        35                  40                  45
Tyr Ser Leu Phe His Lys Leu Glu Asp Thr Glu Ser Thr Val Lys Cys
    50                  55                  60
```

```
Ser Phe Ile Glu Leu Tyr Asn Glu Glu Leu Arg Asp Leu Leu Ser Ala
65                  70                  75                  80
Glu Glu Asn Pro Lys Leu Lys Ile Phe Glu Asn Glu Lys Lys Gly Thr
                85                  90                  95
Ser Gly Ser Thr Leu Val Gln Gly Met Glu Glu Thr Trp Ile Asp Ser
            100                 105                 110
Ala Ser Ala Gly Ile Lys Leu Leu Gln Leu Gly Ser His Lys Arg Gln
        115                 120                 125
Val Ala Ala Thr Lys Cys Asn Asp Leu Ser Ser Arg Ser His Thr Ile
    130                 135                 140
Phe Thr Ile Thr Val Tyr Thr Lys Arg Thr Thr Glu Asn Gly Asp Asp
145                 150                 155                 160
Tyr Ile Ser Ser Gly Lys Leu Asn Leu Val Asp Leu Ala Gly Ser Glu
                165                 170                 175
Asn Ile Gln Arg Ser Gly Ala Glu Asn Lys Arg Ala Thr Glu Ala Gly
            180                 185                 190
Leu Ile Asn Lys Ser Leu Leu Thr Leu Gly Arg Val Ile Asn Ala Leu
        195                 200                 205
Val Asp Lys Ser Pro His Ile Pro Tyr Arg
    210                 215
```

<210> 37499
<211> 199
<212> PRT
<213> A.fumigatus

<400> 37499

```
Pro Leu Ile Ala Leu Gly Ala Ser Leu His Asn Val Leu Thr Arg Val
1               5                   10                  15
Lys Ser His Pro His Leu Tyr Pro Ala Val Asp Leu Ala Tyr Ser Ser
            20                  25                  30
Ser Asp Pro Val Gln Lys Pro Val Ile Leu Gln Leu Pro Ser Asn Gly
        35                  40                  45
Leu Arg Leu Arg Phe Asp Gly Pro Asp Gln Arg Leu Arg Leu Ile Glu
    50                  55                  60
Val Leu Asp Phe Ser Lys Ile Thr Leu Val Tyr Lys Asn Gln Glu Val
65                  70                  75                  80
Met Lys Ala Val Lys Pro Gln Glu Gln Ala Val Ser Gln Gln Gly Pro
                85                  90                  95
Ser Phe Arg His Ile Tyr Asn Arg Leu Phe Gly Pro Ser Tyr Pro Gly
            100                 105                 110
Glu Tyr Thr Pro Pro Gly Asp Gly Gln Ser Pro Tyr Gly Thr Tyr Val
        115                 120                 125
Leu Ser Tyr Pro Gly Ile Ala Phe Ser Phe Pro Leu Gln Asn Ser Ala
    130                 135                 140
Trp Ser Glu Gln Cys Asp Phe Val Ala Leu Leu Ser Ser Ser Ala Ala
145                 150                 155                 160
Leu Pro Ala Thr Ser Met Ala Ile Phe Gln Gly Ala Ser Trp Pro Glu
                165                 170                 175
Ala Arg Asp Lys Leu Phe Ser Gln Gln Pro Gln Tyr Pro Arg Phe Pro
            180                 185                 190
Ala Leu Ser Ala Arg Tyr Cys
        195
```

<210> 37500
<211> 294

<212> PRT
<213> A.fumigatus

<400> 37500
Leu Asp Met Ala Ser Val Gly Asn Thr Ala Phe Pro Gln Ser Lys Arg
1 5 10 15
Asp Ile Ser Thr Asp Pro Val Ser Arg Glu Gly Asn Ala Ile Ser Asp
20 25 30
Thr Ile Asp Ser Asn Thr Ala Asp His Glu Leu Leu Ala Asp Gln Ala
35 40 45
Pro Gln Asp Asp Ala Pro Asp Thr Ser Leu Phe Glu Glu Ser Glu Val
50 55 60
Pro Thr Ser Thr Asn Ser Pro Ala Ser Thr Pro Arg Val Leu Ser Lys
65 70 75 80
Arg Arg Lys Arg Ile Val Gly Gly Lys Pro Lys Arg Val Arg Thr Gly
85 90 95
Cys Leu Thr Cys Arg Glu Arg His Leu Lys Cys Asp Glu Thr Ser His
100 105 110
Arg Cys Gln Asn Cys Arg Lys Ser Gly Arg Ile Cys Arg Arg Gly Val
115 120 125
Arg Leu Asn Phe Ile Asp Thr Gln Thr Val Ala Pro Pro His Cys Ile
130 135 140
Pro Arg Pro Pro Gly Ala Ser Val Ser Phe Arg Asp Glu Ser Arg Val
145 150 155 160
Ile Ala Ser Glu Tyr Val Gly Gly Ala Glu Arg Tyr Pro Pro Pro Gly
165 170 175
Met Glu Pro Pro Leu Glu Leu Ala Leu Pro Ser Glu Tyr Pro Ser Gln
180 185 190
Thr Ser Pro Pro Ile Pro Leu Ser Ser Met Asp Ser Met Ser Ser Leu
195 200 205
Phe Gly Ile Thr Gln Asp Ser Leu Pro Gly Gln Ser Gly Asn Phe Thr
210 215 220
Gly Asn Ala Leu Ser Ala Asp Tyr Ser Val Leu Pro Asp Gln Ser Ala
225 230 235 240
Ser Tyr Ala Pro Phe Lys Ser Ala Lys Val Gly Val Lys Asp Ser Ser
245 250 255
Asp Arg Val Tyr Leu Asn Asp Pro Asp Asp Ile Leu Leu Leu Arg Val
260 265 270
Phe Val Glu Glu Val Gly Leu Trp Met Asp Ser Met Ala Ala Val Lys
275 280 285
His Val Arg Pro Met Leu
290

<210> 37501
<211> 625
<212> PRT
<213> A.fumigatus

<400> 37501
Thr Arg Arg Ser Ala Tyr Asn Arg Gly Arg Lys Thr Leu Ile Tyr Ser
1 5 10 15
Thr Arg Phe Ala Ser Glu Leu Thr Thr Leu Asp Ile Tyr Phe Ser Ile
20 25 30
Gln Thr Leu Leu Glu Met Thr Val Ala Gln Gly Pro Gly Gly Thr Ser
35 40 45
Pro Pro Pro Gln Arg Glu Arg Pro Asp Ile Asp Glu Asp Thr Pro Leu

```
    50                  55                  60
Leu Lys Thr Lys Ser Ser His Leu Arg Leu Tyr Ser Asp Ala Gly Ser
65                  70                  75                  80
Tyr Ser Ala Leu Asp Glu Ser Ala Asp Ala Gly Ser Thr Ser Thr Ala
                85                  90                  95
Phe Pro Ala Glu Asp Glu Glu Ala Leu Leu Asn Leu Ala Arg Val Ser
            100                 105                 110
Ser Leu Pro Gln Gly Pro Asp Ile Glu Pro Ser Leu Glu His Ile Pro
        115                 120                 125
Pro Ala Pro Ile Ala Asp Lys Gly Ala Ser Ala Asp Pro Glu His Cys
    130                 135                 140
Ser Ala Arg Arg Lys Asp Asp Tyr Ala Ser Arg Phe Ile Gly Val Ser
145                 150                 155                 160
Pro Met Arg Phe Trp Leu Ile Phe Ser Gly Ile Leu Leu Gly Tyr Val
                165                 170                 175
Ile Gly Phe Phe Asp Ser Thr Leu Met Ala Phe Ser His Pro Val Ile
            180                 185                 190
Thr Ser His Phe His Ala Ser Asn Ser Ala Ser Trp Leu Ser Thr Ala
        195                 200                 205
Phe Leu Leu Thr Ser Thr Ala Phe Leu Pro Leu Phe Gly Arg Ile Ser
    210                 215                 220
Asp Thr Phe Gly Arg Lys Pro Val Tyr Leu Phe Ala Ile Ala Val Phe
225                 230                 235                 240
Phe Val Thr Thr Ala Trp Cys Ala Ala Ala Gln Ser Ile Gly Ser Phe
                245                 250                 255
Ile Ala Ala Arg Ala Val Cys Gly Leu Gly Ala Gly Gly Val Phe Ser
            260                 265                 270
Met Gly Met Ile Leu Ser Ser Asp Leu Val Arg Ile Glu Tyr Arg Gly
        275                 280                 285
Leu Tyr Gln Ser Tyr Ile Asn Leu Val Leu Gly Val Gly Gly Cys Leu
    290                 295                 300
Gly Leu Ala Phe Gly Gly Phe Leu Cys Asp His Val Gly Trp Arg Gly
305                 310                 315                 320
Ala Phe Leu Val Gln Leu Pro Phe Ile Phe Val Tyr Phe Ile Val Ala
                325                 330                 335
Ala Trp Thr Thr Pro Ala Asp Leu Gly Leu Lys Arg Ala Lys Ala Asp
            340                 345                 350
Gln Met Ser Val Pro Gln Leu Ile Lys Ser Ile Asp Leu Thr Gly Ser
        355                 360                 365
Phe Ile Leu Val Val Thr Val Thr Ala Leu Ile Leu Gly Leu Asn Leu
    370                 375                 380
Gly Gly Asn Val Phe Ala Trp Thr His Pro Phe Ile Ile Ser Ser Leu
385                 390                 395                 400
Ala Leu Ser Ile Val Leu Ala Met Val Phe Val Arg Tyr Glu Arg Asn
                405                 410                 415
Val Glu Arg Ala Val Met Pro Ile Ser Leu Leu Ser Lys Gln Pro Arg
            420                 425                 430
Ala Ser Ile Ile Phe Gly Asn Phe Phe Gly Ser Ile Ser Ile Asn Thr
        435                 440                 445
Met Ile Phe Asn Ala Pro Leu Tyr Phe Gln Ala Val Lys Leu Ala Ser
    450                 455                 460
Pro Thr Asp Ser Gly Leu Arg Leu Val Ala Ala Thr Leu Ala Val Thr
465                 470                 475                 480
Val Ser Ser Val Ser Thr Gly Phe Leu Ile Thr Trp Thr Lys Arg Leu
                485                 490                 495
Lys Pro Thr Met Leu Val Gly Gly Leu Phe Leu Leu Ile Gly Gly Cys
```

```
            500                 505                 510
Ala Ala Ala Leu Ile Gly Lys Asp Thr Pro Asp Leu Ile Ala Met Ile
        515                 520                 525
Cys Val Ser Leu Ser Ser Leu Gly Gln Gly Phe Ser Phe Pro Thr Leu
    530                 535                 540
Met Val Ser Val Leu Ala Thr Ser Ala Gln Glu Glu Gln Ala Val Ala
545                 550                 555                 560
Thr Thr Thr Leu Gly Leu Phe Arg Asn Leu Gly Ser Val Met Gly Val
                565                 570                 575
Ala Thr Ser Ser Trp Ile Phe Gln Asn Thr Leu Val Tyr Gln Leu Asp
            580                 585                 590
Glu Leu Val Thr Ser Pro Asp Lys Glu Ser Val Ile Leu Leu Ala Arg
        595                 600                 605
Lys Ser Val Gln Ala Ile Ala Asn Leu Asp Pro Met His Gln Gln Gln
    610                 615                 620
Gly
625
```

<210> 37502
<211> 66
<212> PRT
<213> A.fumigatus

<400> 37502

```
Val Cys Trp Arg Cys Pro Ser Cys Asp Asp Glu Val Asn Glu Asp Glu
1               5                   10                  15
Arg Gln Leu His Glu Glu Arg Thr Ser Pro Pro Asn Met Ile Thr Gln
            20                  25                  30
Glu Ala Ala Lys Ser Lys Pro Lys Ala Ala Pro Asn Ser Glu Asp Glu
        35                  40                  45
Ile Asp Ile Gly Leu Ile Gln Pro Ser Val Leu Asp Thr Tyr Lys Val
    50                  55                  60
Thr Arg
65
```

<210> 37503
<211> 284
<212> PRT
<213> A.fumigatus

<400> 37503

```
Ser Thr Tyr Met Ala Thr His Ser Ser Phe Phe Gly Met Phe Leu Ser
1               5                   10                  15
Ser Leu Pro Phe Ile Phe Gly Asn Ile Ala Asn Phe Phe Lys Ala Met
            20                  25                  30
Val Ser Val Ala Glu Gln Phe Gly Asn Leu Arg Asn Thr Leu Gly Ser
        35                  40                  45
Ala Leu Gly Ile Phe Thr Ile Ile Arg Trp Phe Arg Thr Leu Ile Ala
    50                  55                  60
Lys Ile Thr Gly Arg Pro Pro Pro Ala Asp Ala Ala Ser Leu Thr Pro
65                  70                  75                  80
Ser Ala Phe Ala Ala Phe Met His Gly Arg Ser Ala Pro Ala Thr Leu
                85                  90                  95
Pro Asp Gly Ser Pro Ala Pro Pro Lys Pro Ser Lys Lys Pro Phe Phe
            100                 105                 110
Met Phe Leu Ile Ala Val Phe Gly Leu Pro Tyr Leu Met Gly Lys Leu
```

```
        115                 120                 125
Ile Lys Ala Leu Ala Arg Ser Gln Glu Glu Gln Arg Lys Gln Met Met
    130                 135                 140
Leu Gly Pro Asn Gly Glu Pro Met Gln Ala Pro Leu Asp Pro Ser Lys
145                 150                 155                 160
Leu Asp Phe Cys Arg Val Leu Tyr Asp Tyr Thr Pro Glu Ser Gln Glu
                165                 170                 175
Ser Ala Gly Ile Asp Leu Ala Val Lys Lys Gly Asp Ile Val Ala Val
            180                 185                 190
Leu Ser Lys Thr Asp Pro Met Gly Asn Ala Ser Glu Trp Trp Arg Cys
        195                 200                 205
Arg Ala Arg Asp Gly Arg Val Gly Tyr Leu Pro Gly Pro Tyr Leu Glu
    210                 215                 220
Thr Ile Gln Arg Arg Pro Ala Gln Gln Ala Ile Thr Ser Gly Ser Glu
225                 230                 235                 240
Ala Gly Ser Arg Thr Asn Thr Met Thr Ser Val Ile Glu Lys Gly Gln
                245                 250                 255
Val Gly Asp Glu Lys Lys Pro Val Leu Lys Gly Lys Met Gly Asp Ile
            260                 265                 270
Ser Pro Glu Ser Phe Gln Lys Ser Ala Phe Tyr Ser
        275                 280
```

<210> 37504
<211> 368
<212> PRT
<213> A.fumigatus

<400> 37504

```
Val Ala Glu Arg Ser Gly Leu Arg Arg Leu Cys Leu Thr Ser Thr Ala
1               5                   10                  15
Ala Ser Ser Phe Asp Glu Arg Ser Leu Arg Leu Trp Arg Ser Arg Ser
            20                  25                  30
Glu Glu Cys Leu Phe Leu Ser Ala Phe Ser Gly Val Arg Asn Leu Ser
        35                  40                  45
Leu Leu Arg Asn Ser Ser Cys Leu Ser Phe Ser Ser Cys Cys Arg Leu
    50                  55                  60
Ala Ser Ser Arg Ala Leu Phe His Arg Ser Arg Arg Leu Pro Leu Arg
65                  70                  75                  80
Ser Gly Phe Leu Arg Gly Asn Asp Leu Arg Thr Ser Ser Glu Glu Leu
                85                  90                  95
Phe Glu Cys Arg Leu Cys Pro Ser Ser Gly Asp Arg Leu Phe Leu Leu
            100                 105                 110
Arg Ala Cys Ser Ala Ala Met Ala Thr Gly Thr Thr Ala Gly Lys Ala
        115                 120                 125
Ala Ser Asn Gly Ser Lys Ala Ser Ile Ser Leu Glu Ile Ser Ser Thr
    130                 135                 140
Gly Val Gly Ser Gly Val Ser Ser Glu Asn Ser Ala Pro Thr Gly Ala
145                 150                 155                 160
Ala Ser Leu Thr Gly Thr Asp Ser Ser Thr Gly Ala Pro Ser Ser Thr
                165                 170                 175
Thr Ala Gly Ser Ser Ala Gly Ile Ser Ser Ala Ala Ala Ala Gly Ser
            180                 185                 190
Ser Thr Gly Pro Gly Ser Thr Gly Ala Gly Ser Thr Glu Ala Gly Ser
        195                 200                 205
Thr Glu Ala Asp Ser Ser Val Gly Ala Ser Ser Met Gly Ala Gly Ser
    210                 215                 220
```

```
Ser Arg Ala Asp Ser Val Gly Gly Ala Ser Ser Ala Ala Gly Ser Ser
225                 230                 235                 240
Thr Gly Ala Gly Ser Thr Gly Ala Asp Ile Ser Ala Gly Thr Ser Ser
                245                 250                 255
Thr Gly Ala Gly Ser Ala Gly Val Asp Ser Ser Ala Gly Ala Ser Ser
            260                 265                 270
Thr Gly Ile Arg Ser Ser Ala Gly Ala Asp Ser Ser Gly Thr Asp Phe
        275                 280                 285
Ser Thr Gly Val Gly Ser Ser Ala Gly Ser Cys Lys Gly Ala Gly Ser
    290                 295                 300
Ser Ala Gly Thr Ser Ser Ala Gly Ala Gly Ser Ser Val Gly Ile Ser
305                 310                 315                 320
Ser Ala Ala Ala Ala Gly Ser Ser Ala Gly Ala Gly Ser Ser Thr Gly
                325                 330                 335
Ala Gly Ser Ser Thr Asp Gly Asp Ser Ser Ala Ala Gly Ser Ser Thr
            340                 345                 350
Gly Ala Gly Ser Ser Ala Gly Ala Ser Ser Thr Gly Ala Gly Ser Ser
        355                 360                 365
```

<210> 37505
<211> 71
<212> PRT
<213> A.fumigatus

<400> 37505

```
Glu Ser Pro Arg Gln Gln Arg Gln Gly Leu Gln Pro Glu Pro Val Leu
1               5                   10                  15
Gln Arg Gly Gln Asp Leu Gln Leu Met Glu Ile Pro Gln Gln Gln Ala
            20                  25                  30
Leu Gln Arg Glu Gln Val Pro Gln Gln Glu His Leu Pro Gln Glu Gln
        35                  40                  45
Val Pro His Glu Pro Thr Leu His Glu Gly Pro Pro Arg His Gln Gln
    50                  55                  60
Gln Gln Ala Leu Pro Leu Lys
65                  70
```

<210> 37506
<211> 741
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3),(12)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37506

```
Gln Trp Xaa Arg Ile Trp Arg Leu Gly Arg Val Xaa Lys Lys Thr Glu
1               5                   10                  15
Glu Ala Pro Gln Glu Pro Pro Glu Gln Pro Leu Thr Glu Glu Val Val
            20                  25                  30
Glu Glu Ser Ala Ser Pro Glu Ser Val Ala Glu Glu Pro Ala Ser Ala
        35                  40                  45
Glu Gln Pro Pro Pro Ala Asp Glu Pro Ala Pro Glu Glu Pro Pro Ala
    50                  55                  60
Ala Glu Glu Ser Ala Pro Ala Val Pro Glu Val Glu Glu Pro Ala Pro
```

65 70 75 80
Gln Asp Glu Thr Pro Val Gln Lys Ala Pro Ala Ala Glu Gln Ser Thr
85 90 95
Ala Glu Asp Val Thr Pro Glu Glu Pro Ala Pro Val Glu Glu Ala Ser
100 105 110
Ala Lys Glu Pro Val Ala Glu Glu Pro Thr Pro Gly Asp Lys Ser Ser
115 120 125
Pro Val Glu Glu Ala Ala Val Glu Glu Ala Pro Pro Ala Glu Glu Ser
130 135 140
Ala Ala Ser Glu Glu Ser Thr Pro Val Glu Glu Ala Ala Pro Thr Glu
145 150 155 160
Glu Ser Ala Ala Glu Glu Ser Ala Pro Ala Glu Glu Ala Thr Glu Ser
165 170 175
Ile Ser Val Gly Glu Pro Ala Ala Ala Asp Ala Glu Glu Gly Leu Arg
180 185 190
Glu Glu Ser Ala His Glu Glu Pro Ala Pro Val Glu Asp Ala Pro Ala
195 200 205
Glu Glu Pro Ala Pro Val Glu Glu Pro Ala Ala Glu Glu Ser Pro Ser
210 215 220
Val Glu Asp Pro Ala Pro Val Glu Glu Pro Ala Pro Ala Glu Asp Pro
225 230 235 240
Ala Ala Ala Ala Glu Glu Ile Pro Thr Glu Glu Pro Ala Pro Ala Glu
245 250 255
Glu Val Pro Ala Glu Glu Pro Ala Pro Leu Gln Glu Pro Ala Glu Glu
260 265 270
Pro Thr Pro Val Glu Lys Ser Val Pro Glu Glu Ser Ala Pro Ala Glu
275 280 285
Glu Arg Ile Pro Val Glu Glu Ala Pro Ala Glu Glu Ser Thr Pro Ala
290 295 300
Glu Pro Ala Pro Val Glu Glu Val Pro Ala Glu Ile Ser Ala Pro Val
305 310 315 320
Glu Pro Ala Pro Val Glu Glu Pro Ala Ala Glu Glu Ala Pro Pro Thr
325 330 335
Glu Ser Ala Arg Glu Glu Pro Ala Pro Met Glu Glu Ala Pro Thr Glu
340 345 350
Glu Ser Ala Ser Val Glu Pro Ala Ser Val Glu Pro Ala Pro Val Glu
355 360 365
Pro Gly Pro Val Glu Glu Pro Ala Ala Ala Ala Glu Glu Ile Pro Ala
370 375 380
Glu Glu Pro Ala Val Val Glu Glu Gly Ala Pro Val Glu Glu Ser Val
385 390 395 400
Pro Val Lys Glu Ala Ala Pro Val Gly Ala Glu Phe Ser Glu Glu Thr
405 410 415
Pro Asp Pro Thr Pro Val Glu Glu Ile Ser Arg Asp Ile Asp Ala Leu
420 425 430
Glu Pro Leu Glu Ala Ala Leu Pro Ala Val Val Pro Val Ala Ile Ala
435 440 445
Ala Glu His Ala Arg Arg Arg Lys Arg Arg Ser Pro Asp Glu Gly Gln
450 455 460
Arg Arg His Ser Lys Ser Ser Ser Glu Glu Val Arg Arg Ser Leu Pro
465 470 475 480
Arg Lys Lys Pro Glu Arg Ser Gly Ser Leu Leu Asp Arg Trp Asn Lys
485 490 495
Ala Leu Glu Glu Ala Lys Arg Gln His Glu Glu Lys Leu Arg Gln Glu
500 505 510
Glu Leu Arg Ser Lys Asp Lys Phe Arg Thr Pro Glu Lys Ala Glu Arg

```
        515                 520                 525
Asn Arg His Ser Ser Glu Arg Glu Arg His Lys Arg Ser Glu Arg Ser
    530                 535                 540
Ser Lys Glu Glu Ala Ala Val Asp Val Lys His Ser Arg Arg Arg Pro
545                 550                 555                 560
Glu Arg Ser Ala Thr Tyr Glu Val Glu Arg Ser Ser Gly Glu Lys Ala
                565                 570                 575
Ala Val Pro Ile Glu Pro Ser Arg Arg Thr Arg Glu His Ser Ser Ser
            580                 585                 590
Gln Gly Gly Glu Arg Arg Ser Thr Ser Ser Arg Asp Gly His Ser Ser
        595                 600                 605
Gly Ser Lys Pro Arg Ala Phe Leu Lys Tyr Met Thr Ala Glu Ser Glu
    610                 615                 620
Thr Asn Gly Pro Leu Leu Lys Ile Asn Gly Asp Lys Ala Ala Ala Asn
625                 630                 635                 640
Val Leu Gly Arg Arg Ser Ser Pro Ser His Ser His Ser His Arg His
                645                 650                 655
Ser His Glu Gly Arg Gly Ser Asp Arg Ser Thr Ser Ser His His Ala
            660                 665                 670
Ala Glu Glu Glu Gln Ala Arg Arg Glu Arg Arg Ala Arg Arg Arg Ala
        675                 680                 685
Ala Glu Glu Val Glu Gln Ala Lys Glu Arg Glu Ala Thr Asp His His
    690                 695                 700
Arg His Arg His Ser Gly Glu Thr Arg His His His His Arg Arg Arg
705                 710                 715                 720
Arg Asp Glu Pro Pro Lys Glu Glu Ser Lys Leu Lys Asn Ile Leu Lys
                725                 730                 735
Ala Val Val Ala His
            740
```

<210> 37507
<211> 100
<212> PRT
<213> A.fumigatus

<400> 37507

```
Lys Thr Thr Ile Ser Cys Leu Arg Arg Leu Leu Thr Ile Cys Cys Arg
1               5                   10                  15
Trp Ser Val Ala Leu Ala Glu Thr Phe Lys Glu Gln Gly Leu Gln Asn
            20                  25                  30
Val Val Arg Glu Glu Phe Ser Thr Asp Thr Tyr Leu Leu Leu Leu Asp
        35                  40                  45
Gln Thr Asn Tyr Leu Gly Leu Phe Gly Glu Leu Ile Ser Lys Leu Asp
    50                  55                  60
Gly Asp Leu Lys Glu Glu Leu Thr Gln Leu His Ala Asn Thr Val Ala
65                  70                  75                  80
Glu Ala Arg Lys Gly Leu Ser Trp Lys Val Arg Arg Phe Ala Phe Leu
                85                  90                  95
Gly Gln Lys Pro
            100
```

<210> 37508
<211> 296
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37508
Gly Gly Xaa Leu Gly Leu Ser Ala Leu Arg Ser Ala Val Ser Thr Pro
1 5 10 15
Gly Glu Asp Ser Phe Thr Phe Leu Thr Thr Asn Ser Arg Pro Ser Thr
20 25 30
Arg Thr Ser Pro Ser Ser Asn Arg His Arg Ser Lys Thr Leu Ser Leu
35 40 45
Thr Ser Trp Arg Thr Pro Lys Gln Pro Gln Leu Asp Tyr Trp Thr Arg
50 55 60
Leu Leu Gln Asn His Ser Phe Asp Phe Pro Ser Ala Val Ile Glu Pro
65 70 75 80
Lys Leu Ser Ser Thr Glu Val Ala Lys Ile Asp Ala Ser Leu Gly Ile
85 90 95
Asn Gly Leu Ala Ser Ser Thr Gly Val Thr Ala Pro Ile Val Phe Gln
100 105 110
Thr Ala Tyr Ser Leu Leu Leu Ala His Leu Ser Gly Ala Arg Asp Val
115 120 125
Ile Tyr Asp Asn Leu Val Thr Gly Arg Asn Val Ala Leu Asp Asn Pro
130 135 140
Gln Leu Ile Asn Gly Asn Cys Ala Asn Phe Leu Pro Tyr His Ser Tyr
145 150 155 160
Val Ala Asp Asp Met Pro Ile Glu Thr Leu Leu Arg Ser Thr Gln Ala
165 170 175
Asp Phe Trp Thr Ser Thr Glu Asn Gly Leu Val Ser Leu Gly Glu Ile
180 185 190
Tyr Glu Ala Leu Gly Arg Asp Arg Ser Thr Ala Ala Ala Lys Cys Leu
195 200 205
Phe Cys Phe Gln Pro Phe Glu Pro Val Thr Ala Gln Gln Asp Pro Met
210 215 220
Arg Trp Val Val Met Lys Met Ser Lys Asn Arg Met Thr Phe Asn Tyr
225 230 235 240
Ala Ile Gln Met Glu Val Val Lys Ala Ala Ala Lys Gly Glu Tyr Leu
245 250 255
Val Arg Phe Gly Tyr Asp Glu Arg Ala Phe Ser Ala Glu Glu Ala Arg
260 265 270
Ala Ala Leu Ala Trp Tyr Thr Arg Cys Leu Asp Gly Met Val Lys Ser
275 280 285
Lys Val Val Gly Glu Leu Gly Val
290 295

<210> 37509
<211> 383
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (11)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37509

```
Leu Leu Arg Ile Ala Arg Leu Leu Arg Ala Xaa Cys Gly Glu Asp Ala
1               5                  10                  15
Pro Ala Pro Phe Gly Thr Leu Lys Thr Ala Ala Leu Ser Glu Gln Arg
            20                  25                  30
Asn Pro Phe Ser Thr Thr Gly Ala Arg Pro Leu Leu Arg Val Phe Asp
        35                  40                  45
Ile Leu Tyr Leu Asn Gly Arg Asp Leu Thr Gly Tyr Thr Leu Arg Asp
    50                  55                  60
Arg Arg Lys Ala Leu Gln Lys Ala Val Arg Pro Val His Arg Arg Phe
65                  70                  75                  80
Glu Ile His Pro Tyr Glu Glu Ala Thr Thr Lys Asp Gln Val Glu Ala
                85                  90                  95
Ala Leu Arg Lys Val Val Ala Glu Ala Ser Glu Gly Leu Val Leu Lys
            100                 105                 110
Asn Pro Arg Ser Pro Tyr Arg Leu Asn Glu Arg His Asp Asp Trp Met
        115                 120                 125
Lys Val Lys Pro Glu Tyr Met Thr Glu Phe Gly Glu Ser Leu Asp Leu
    130                 135                 140
Ile Val Ile Gly Gly Tyr Tyr Gly Ser Gly Arg Arg Gly Gly Asn Leu
145                 150                 155                 160
Ser Ser Phe Leu Cys Gly Leu Arg Val Asp Asp Gly His Ala Ser Gln
                165                 170                 175
Gly Ala Ser Ala Ser Lys Cys Tyr Ser Phe Cys Lys Val Gly Gly Gly
            180                 185                 190
Phe Asn Ala Ala Asp Tyr Ala Asn Ile Arg His His Thr Asp Gly Lys
        195                 200                 205
Trp Met Glu Trp Asn Pro Lys Lys Pro Pro Thr Ala Tyr Ile Glu Leu
    210                 215                 220
Ala Gly Arg Asp Ala Gln Tyr Glu Arg Pro Asp Met Trp Ile Lys Pro
225                 230                 235                 240
Glu Asp Ser Val Val Ile Cys Val Lys Ala Ala Ser Val Ser Ala Ser
                245                 250                 255
Asp Gln Phe Arg Leu Gly Leu Thr Leu Arg Phe Pro Arg Phe Lys Arg
            260                 265                 270
Leu Arg Met Asp Lys Asp Trp Lys Ser Ala Leu Ser Val Gln Glu Phe
        275                 280                 285
Leu Asp Leu Lys Ser Asn Val Glu Gln Glu His Arg Glu Lys Glu Leu
    290                 295                 300
Asn Val Asp Asn Ser Arg Arg Lys Arg Val Lys Arg Thr Ala Lys Lys
305                 310                 315                 320
Pro Leu Thr Val Ala Gly Tyr Asp Met Asp Glu Asp Val Lys Tyr Ala
                325                 330                 335
Gly Pro Ser Gly His Ile Phe Asp Gly Leu Asn Phe Cys Glu Leu Tyr
            340                 345                 350
Thr Gly Gln Leu Gly Leu Phe Ile Asp Gly Val Leu Ile Met Arg Gly
        355                 360                 365
Arg Tyr Ser Asp Arg Phe Glu Cys Ala His Gln Glu Asn Lys Ala
    370                 375                 380
```

<210> 37510
<211> 63
<212> PRT
<213> A.fumigatus

<400> 37510
Pro Pro Gln Arg Gln Ser Arg Ile Ser Tyr Gly Trp Thr Leu His Asp

```
1               5                   10                  15
Gly Pro Thr Thr Tyr Ser Ser Gly Val Leu Gln Ala Val Pro Phe His
            20                  25                  30
Phe Ala Thr Ser Ser Leu His Pro Thr Ile Pro Ile Leu Ala Lys Cys
        35                  40                  45
Trp Pro Asp Glu Glu Ala Val Arg Ser Gln Val Gly His Cys Thr
    50                  55                  60
```

<210> 37511
<211> 274
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (7)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37511

```
His Ile Arg Leu Arg Pro Xaa Leu Asn Pro Ala Lys Ile Arg His Lys
1               5                   10                  15
Ser Phe Lys Val Glu Cys Ser Phe Ala Gln Val Ser Val Asp Met Phe
            20                  25                  30
Leu Phe Ser Ser Gln Tyr Gln Asp Val Ala Ser Leu Ser Asn Leu Pro
        35                  40                  45
Arg Tyr Thr Gly Gly Gln Thr Tyr Phe Tyr Pro Gly Trp Asn Ala Ala
    50                  55                  60
Arg Gly Glu Asp Ala Ile Lys Phe Ala Arg Glu Phe Ser Glu Tyr Leu
65                  70                  75                  80
Ser Ser Glu Ile Gly Leu Glu Ala Val Leu Arg Val Arg Ala Thr Thr
                85                  90                  95
Gly Leu Arg Met Asn Thr Phe Tyr Gly Asn Phe Phe Asn Arg Ser Ser
            100                 105                 110
Asp Leu Cys Ala Phe Pro Ala Phe Pro Arg Asp Gln Ala Tyr Val Val
        115                 120                 125
Glu Val Ala Ile Asp Glu Thr Val Thr Lys Pro Ile Val Cys Leu Gln
    130                 135                 140
Thr Ala Val Leu His Thr Thr Cys Asn Gly Glu Arg Arg Ile Arg Val
145                 150                 155                 160
Leu Thr Leu Ala Leu Pro Thr Thr Gln Asn Leu Ala Asp Val Tyr Ala
                165                 170                 175
Ser Ala Asp Gln Gln Ala Ile Ala Thr Tyr Phe Ser His Lys Ala Val
            180                 185                 190
Glu Arg Val Leu Ser Ser Gly Leu Glu Pro Ala Arg Glu Ala Leu Gln
        195                 200                 205
Ala Lys Ala Val Glu Leu Leu Ser Thr Tyr Arg Lys Glu Leu Ala Gly
    210                 215                 220
Gly Asn Val Ser Gly Gly Gly Leu Gln Phe Pro Ala Asn Leu Arg Ser
225                 230                 235                 240
Leu Pro Val Leu Phe Leu Gly Met Ile Lys Asn Val Ser Phe Pro Cys
                245                 250                 255
Ser Thr Phe Tyr Ser Leu Asp Gln Ser Val Thr Ser Pro Gly Glu Thr
            260                 265                 270
Val Gly
```

<210> 37512
<211> 169
<212> PRT
<213> A.fumigatus

<400> 37512
Arg Leu Leu Phe Leu Phe Phe Ile Gln Tyr Ile Tyr Pro Lys Met Tyr
1 5 10 15
Ser Leu His Asp Met Pro Asp Ile Ala Gly Leu Pro Asp Glu Gln Thr
20 25 30
Gly Glu Ile Val Leu Pro Pro Pro Val Asn Leu Ser Ser Glu Arg Ile
35 40 45
Val Pro Tyr Gly Leu Tyr Leu Ile Asp Asp Gly Gln Thr Gln Phe Leu
50 55 60
Trp Val Gly Arg Asp Ala Val Pro Gln Leu Leu Leu Asp Val Phe Gly
65 70 75 80
Leu Pro Asp Arg Ser Gln Leu Arg Val Gly Lys Gln Asn Leu Pro Glu
85 90 95
Leu Asp Asn Asp Phe Asn Gln Arg Val Arg Ala Val Ile Glu Lys Ser
100 105 110
Arg Asp His Arg Ser Lys Gly Val Gly Ser Ile Val Val Pro His Leu
115 120 125
Tyr Val Val Lys Glu Asp Gly Glu Pro Gly Leu Arg Leu Trp Ala Gln
130 135 140
Thr Met Leu Val Glu Asp Arg Ala Asp Gln Ser Val Ser Leu Val Gln
145 150 155 160
Trp Met Gly Ser Leu Arg Glu Lys Val
165

<210> 37513
<211> 67
<212> PRT
<213> A.fumigatus

<400> 37513
Val His His Pro Val Pro Tyr Tyr Leu Ser Val Phe Ser Ala Ala Arg
1 5 10 15
Leu Ser Pro Asp Ile Lys Leu Gln Ile Cys Ala Ser Tyr Thr Ile Asp
20 25 30
Glu Ala Glu His Ser His Gly Glu Thr Glu Ser Phe Tyr Asn Ser Ala
35 40 45
Phe Ser Ile Tyr Ile His Ser Gly Pro Ser Leu Ser Asp Pro Arg Phe
50 55 60
Ser Pro Gly
65

<210> 37514
<211> 272
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (261)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37514
Phe Gly Asp Pro Glu Glu Ser Ala Ser Asp Leu Asp Asp Asp Thr Ser
1 5 10 15
Asp Leu Pro Phe Pro Glu Pro Leu Thr Arg Ala Ser Phe Leu Ala Pro
20 25 30
Asp Phe Asn Pro Ala Asp Tyr Leu Ser Ser Leu Ala Asn Arg His Gln
35 40 45
Ser Leu Glu Asp Leu Arg Gln Glu Leu Arg Asn Leu Asp Gln Ala Leu
50 55 60
Ser Arg Glu Leu Leu Asp Leu Val Asn Glu Asn Tyr Gly Asp Phe Leu
65 70 75 80
Ser Leu Gly Ser Ala Leu Gln Gly Gly Glu Glu Lys Val Glu Gln Val
85 90 95
Arg Val Gly Leu Leu Ser Phe Gln Arg Glu Val Gln Ala Ile Arg Asp
100 105 110
Lys Val Glu Ala Arg Gln Ser Asp Met Glu Lys Leu Leu Asn Glu Lys
115 120 125
Arg Arg Leu Thr Gly His Ala Asn Ile Ala Arg Ala Leu Leu Asp Phe
130 135 140
Ala Glu Arg Val Glu Asp Leu Glu Lys Arg Leu Met Ile Gly Asp Ala
145 150 155 160
Pro Thr Gln His Gln Arg Glu Ser Ala Glu Gly Leu Asp Thr Asp Ser
165 170 175
Asp Leu Leu Asp Ser Glu Ser Glu Glu Ser Asp Glu Glu Asp Leu Pro
180 185 190
Thr Gly Ser Ser Ala Ala Pro Leu Val Ser Leu Arg Arg Leu Glu Asn
195 200 205
His Ile Gln Lys Tyr Val Tyr Leu Thr Arg Leu Ala Ser Arg Ile Gly
210 215 220
Asp Asp His Pro Phe Leu Leu Asn Gln Arg Pro Arg Leu Ala Lys Ile
225 230 235 240
Arg Ala Thr Val Leu Val Asp Leu Lys Thr Ala Leu Glu Gln Gly Ser
245 250 255
His Ala Gly Ala Xaa Arg Asp Thr Lys Thr Met Ala Val Leu Arg Leu
260 265 270

<210> 37515
<211> 180
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (32),(42)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37515
Tyr Pro Pro Arg Thr Ser Asp Glu His Ile Ala Leu Ala Glu Gln Leu
1 5 10 15
Leu Thr Leu Ala Ser Thr Asp Pro Ala Val Ala Ser Ser Met Gly Xaa
20 25 30
Pro Arg Leu Ala Gly Ala Val Leu Val Xaa Thr Pro Gln Ala Val Ala
35 40 45
Thr Ser Asp Val Arg Lys Glu Ala Ile Phe Cys Val Lys Thr Gln Ile
50 55 60
Pro Ala Leu Gly Val Ile Glu Asn Met Ser Gly Tyr Thr Cys Pro Cys

```
65                  70                  75                  80
Cys Gly Glu Val Ser Asn Leu Phe Ser Ser Gly Gly Gly Lys Val Met
                85                  90                  95
Ala Glu Glu Leu Gly Ile Arg Phe Leu Gly Thr Val Pro Val Asp Val
            100                 105                 110
Lys Phe Gly Glu Leu Val Glu Gly Lys Met Val Val Asp Ser Asp Ser
        115                 120                 125
Asp Glu Glu Asp Gly Pro Thr Gln Ala Gln Gln Pro Glu Glu Pro Val
    130                 135                 140
Asp Asn Arg Pro Leu Val Glu Arg Tyr Lys Asp Cys Trp Ser Tyr Ser
145                 150                 155                 160
Arg Phe Glu Glu Phe Ala Lys Thr Leu Ile Ser Gln Ile Glu Ser Gly
                165                 170                 175
Ser Ala Ala Ser
            180
```

<210> 37516
<211> 440
<212> PRT
<213> A.fumigatus

```
<400> 37516
Trp Asp Asp Phe Asp Asn Lys Pro Glu Ile Glu Thr Phe Phe Ile Phe
1               5                   10                  15
Tyr Val Asp Pro Gly Leu Leu Ile Met Asp Tyr Arg Ser Asp Arg Leu
            20                  25                  30
Ser Ser His His Gly Val Gln Leu Ser Pro Ser Leu Ser Gly Gln Lys
        35                  40                  45
Trp Ser Gln Leu Thr Pro Ser His Ser Arg Pro Val Val Glu Thr Val
    50                  55                  60
Gly Pro Ser His Gln Ala Ser Ser Gly Arg Tyr Arg Val Ala Leu Asp
65                  70                  75                  80
Thr Ser Ala Arg Thr Tyr Arg Thr Thr Ala Leu Arg Gln Ile Asn Gly
                85                  90                  95
Asn His Arg Pro Pro Ser Trp Val Asn Arg Gln Ala Asn Arg Ser Gly
            100                 105                 110
Asn Arg Ser Ser Thr Leu Ala Ser Gln Pro Val Leu Val Arg Ala Tyr
        115                 120                 125
Ser Gly Ser Thr Asp Asp Thr Gly Glu Ile Ser Asn Met Pro Ser Arg
    130                 135                 140
Leu Ser Phe Pro Phe Ser Val Arg Ser Gly Thr Pro Lys Arg Gly Pro
145                 150                 155                 160
Ser Leu Pro Ser Glu Asp Asp Phe Ser Ile Asp Gly Ile Leu Arg Ala
                165                 170                 175
Ile Glu Pro Glu Ile Arg Asn Thr Leu Asp Ala Ile Gly Glu Ile Cys
            180                 185                 190
Gly Arg Ser Lys Leu Ser Leu Ala Asn Glu Tyr Gly Ser His Ile Ala
        195                 200                 205
Pro Leu Gly Glu Ile Arg Ala Pro Pro Gly Gly Leu Leu Thr Val Glu
    210                 215                 220
Glu Ala Ser Ser Asp His Glu Arg Gln Pro Asp Asp Ala Met Ile Ile
225                 230                 235                 240
Phe Asp Asp Asp Ser Asn Ser Val Met Gly Val Arg Asp Tyr Thr Thr
                245                 250                 255
Leu Pro Gln Tyr Arg Tyr Leu Glu Gln Thr Arg Pro Ser Thr Ile Pro
            260                 265                 270
```

```
Pro Ser Thr Met Gly Tyr His Ser Phe Val Pro Phe Ser Val Ala Glu
        275                 280                 285
Gly Leu Ser Val Leu Ala Gln Ser Ala Asn Leu Asp Glu Asn Thr Ser
    290                 295                 300
Asp Pro Val Ala Asp Ser Leu Pro Ala Thr Arg Glu Phe Met Ser Lys
305                 310                 315                 320
Pro Asn Ser Ser Gly Arg Thr Leu Leu Gly Lys Gln Ser Glu Cys Ile
                325                 330                 335
Thr Glu Asp His Leu Lys Ser Ile Leu Thr Pro Ala Leu Val Ala Glu
            340                 345                 350
Ile Arg Leu Glu Ala Gln Ala Asn Gly His Ser Leu His Ala Leu Pro
        355                 360                 365
Ser Asp Ser Arg Arg Gly Gln Leu Ser Ala Ala Glu Asn Gly Asp Thr
    370                 375                 380
Ala Thr Arg Asp Gly Gly Gln Thr Asp Lys Leu Ser Val Leu Thr Asp
385                 390                 395                 400
Val Gln Ala Leu Phe Asn Trp Leu Arg Asn Ala Ser Gln Asp Gly Gln
                405                 410                 415
Pro Arg Ser Ala Glu Lys Leu Leu Arg Ala Met Leu Glu Lys Gln Asn
            420                 425                 430
Glu His Pro Pro Arg Asn Thr Cys
        435                 440
```

<210> 37517
<211> 94
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (74)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37517

```
Arg Ser His Glu Ser Phe Pro Phe Glu Arg Ala Cys Trp Cys Arg Ser
1               5                   10                  15
Phe Val Cys Ile Ile Ile Asn Ser Val Ala Asp Cys Ser Glu Val Leu
            20                  25                  30
Gln Ala Ile Lys Leu Arg Tyr Ala Gln Lys Glu Ile Tyr Thr Tyr Ser
        35                  40                  45
Gly Ile Val Leu Ile Ala Thr Asn Pro Phe Ala Arg Val Asp Ser Leu
    50                  55                  60
Tyr Val Pro Gln Met Val Gln Val Tyr Xaa Gly Lys His Arg Ala Ser
65                  70                  75                  80
Gln Ala Pro His Leu Phe Ala Ile Ala Glu Glu Ala Phe Ala
                85                  90
```

<210> 37518
<211> 60
<212> PRT
<213> A.fumigatus

<400> 37518

```
Thr Ile Leu Phe Arg Glu Arg Ser Arg Lys Thr Phe Glu Thr Thr Gln
1               5                   10                  15
Ala Asp Leu Gln Met Asp Asn His Pro Lys Leu Pro Pro Leu Met Asn
```

```
            20                  25                  30
Pro Ala Met Leu Glu Ala Ser Glu Asp Leu Thr Asn Leu Ser His Leu
        35                  40                  45
Asn Glu Pro Ala Gly Ala Ala Leu Ser Ser Val Ser
    50                  55                  60

<210> 37519
<211> 1079
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (24),(1077)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37519
Phe Leu Leu Gln Gln Thr Pro Ser Leu Gly Leu Thr Arg Phe Met Tyr
1               5                   10                  15
His Lys Trp Tyr Arg Cys Thr Xaa Glu Ser Thr Val Pro Arg Lys His
            20                  25                  30
Pro Ile Cys Ser Pro Ser Arg Arg Arg Arg Leu Arg Lys Pro Pro Leu
        35                  40                  45
Arg Pro Leu Leu Asn Phe Tyr Leu Arg Ala Leu Leu Ser Asp Met Leu
    50                  55                  60
Arg Asp Gly Lys Asn Gln Thr Ile Val Val Ser Gly Glu Ser Gly Ala
65                  70                  75                  80
Gly Lys Thr Val Ser Ala Lys Tyr Ile Met Arg Tyr Phe Ala Thr Arg
                85                  90                  95
Glu Ser Ser Asp Gln Pro Gly Lys Tyr Thr Thr Ser Arg Ala Asp Ala
            100                 105                 110
Ile Ser Glu Thr Glu Glu Gln Ile Leu Ala Thr Asn Pro Val Met Glu
        115                 120                 125
Ala Phe Gly Asn Ala Lys Thr Thr Arg Asn Asp Asn Ser Ser Arg Phe
    130                 135                 140
Gly Lys Tyr Ile Glu Ile Met Phe Asp Asp Arg Asn Asn Ile Ile Gly
145                 150                 155                 160
Ala Lys Ile Arg Thr Tyr Leu Leu Glu Arg Ser Arg Leu Val Phe Gln
                165                 170                 175
Pro Leu Lys Glu Arg Asn Tyr His Val Phe Tyr Gln Leu Val Ala Gly
            180                 185                 190
Ala Thr Asp Gln Glu Lys Glu Asp Leu Gly Leu Thr Ser Val Glu Asp
        195                 200                 205
Phe Glu Tyr Leu Asn Gln Gly Gly Thr Pro Thr Ile Glu Gly Val Asp
    210                 215                 220
Asp Gln Ser Glu Phe Asn Ala Thr Arg Lys Ser Leu Thr Thr Ile Gly
225                 230                 235                 240
Val Pro Glu Arg Thr Gln Ala Glu Ile Phe Arg Ile Leu Ala Ala Leu
                245                 250                 255
Leu His Leu Gly Asn Val Lys Ile Thr Ala Thr Arg Thr Asp Ser Thr
            260                 265                 270
Leu Ser Pro Ser Glu Pro Ser Leu Val Arg Ala Cys Asp Met Leu Gly
        275                 280                 285
Ile Asp Val Asn Glu Phe Ala Lys Trp Ile Val Lys Lys Gln Leu Ile
    290                 295                 300
Thr Arg Gly Glu Lys Ile Thr Ser Asn Leu Thr Gln Gln Gln Ala Thr
```

305 310 315 320
Val Val Lys Asp Ser Val Ala Lys Phe Ile Tyr Ser Ser Leu Phe Asp
325 330 335
Trp Leu Val Asp Lys Ile Asn Arg Arg Leu Ala Ser Asp Glu Val Leu
340 345 350
Asn Ser Tyr Arg Ser Phe Ile Gly Val Leu Asp Ile Tyr Gly Phe Glu
355 360 365
His Phe Ala Lys Asn Ser Phe Glu Gln Phe Cys Ile Asn Tyr Ala Asn
370 375 380
Glu Lys Leu Gln Gln Glu Phe Asn Gln His Val Phe Lys Leu Glu Gln
385 390 395 400
Glu Glu Tyr Val Arg Glu Lys Ile Asp Trp Thr Phe Ile Glu Phe Ser
405 410 415
Asp Asn Gln Pro Cys Ile Asp Leu Ile Glu Ala Lys Leu Gly Ile Leu
420 425 430
Ser Leu Leu Asp Glu Glu Ser Arg Leu Pro Met Gly Ser Asp Glu Gln
435 440 445
Phe Val Thr Lys Leu His His Asn Phe Ala Ala Asp Lys Gln Lys Phe
450 455 460
Tyr Lys Lys Pro Arg Phe Gly Lys Ser Ala Phe Thr Ile Cys His Tyr
465 470 475 480
Ala Val Asp Val Thr Tyr Glu Ser Asp Gly Phe Ile Glu Lys Asn Arg
485 490 495
Asp Thr Val Pro Asp Glu His Met Asp Val Leu Arg Asn Ser Ser Asn
500 505 510
Glu Phe Val Lys Glu Ile Leu Asp Thr Ala Ala Ala Val Arg Glu Lys
515 520 525
Asp Ser Ala Ser Ile Ser Ser Lys Pro Val Ala Ala Pro Gly Arg Arg
530 535 540
Ile Gly Val Ala Val Asn Arg Lys Pro Thr Leu Gly Gly Ile Phe Lys
545 550 555 560
Ser Ser Leu Ile Glu Leu Met Asn Thr Ile Asn Ser Thr Asp Val His
565 570 575
Tyr Ile Arg Cys Ile Lys Pro Asn Glu Ala Lys Glu Pro Trp Lys Phe
580 585 590
Glu Gly Pro Met Val Leu Ser Gln Leu Arg Ala Cys Gly Val Leu Glu
595 600 605
Thr Val Arg Ile Ser Thr Ala Gly Tyr Pro Thr Arg Trp Thr Tyr Glu
610 615 620
Glu Phe Ala Ile Arg Tyr Tyr Met Leu Cys His Ser Ser Gln Trp Thr
625 630 635 640
Ser Glu Ile Lys Glu Met Cys His Ala Ile Leu Gln Lys Ala Leu Gly
645 650 655
Asp Ala Ser His Gln Lys Gln Asp Lys Tyr Gln Leu Gly Leu Thr Lys
660 665 670
Ile Phe Phe Arg Ala Gly Met Leu Ala Phe Leu Glu Asn Leu Arg Thr
675 680 685
Ser Arg Leu Asn Glu Cys Ala Ile Met Ile Gln Lys Asn Leu Arg Cys
690 695 700
Lys Tyr Tyr Arg Arg Arg Tyr Leu Glu Ala Arg Ser Ser Ile Leu Thr
705 710 715 720
Thr Gln Ala Leu Ile Arg Gly Phe Leu Ala Arg Gln Arg Ala Ala Glu
725 730 735
Val Arg Gln Val Lys Ala Ala Thr Thr Ile Gln Arg Ile Trp Arg Gly
740 745 750
Gln Lys Glu Arg Lys Phe Tyr Asn Glu Ile Arg Gly Asn Phe Ile Leu

```
        755                 760                 765
Phe Gln Ser Val Ala Lys Gly Phe Leu Cys Arg Arg Asn Ile Met Asp
    770                 775                 780
Thr Ile His Gly Asn Ala Ala Lys Ile Ile Gln Arg Ala Phe Arg Ser
785                 790                 795                 800
Trp Arg Gln Ile Arg Ala Trp Arg Gln Tyr Arg Arg Lys Val Ile Ile
                805                 810                 815
Val Gln Asn Leu Trp Arg Gly Lys Gln Ala Arg Arg Gln Tyr Lys Lys
            820                 825                 830
Leu Arg Glu Glu Ala Arg Asp Leu Lys Gln Ile Ser Tyr Lys Leu Glu
        835                 840                 845
Asn Lys Val Val Glu Leu Thr Gln Tyr Leu Glu Ser Leu Lys Arg Glu
    850                 855                 860
Asn Lys Ser Leu Asn Ser Gln Leu Glu Asn Tyr Glu Thr Gln Leu Lys
865                 870                 875                 880
Ser Trp Arg Thr Arg His Asn Ala Leu Glu Asn Arg Thr Arg Glu Leu
                885                 890                 895
Gln Ala Glu Ala Asn Gln Ala Gly Ile Thr Ala Ala Arg Leu Ala Ala
            900                 905                 910
Met Glu Asp Glu Met Ser Lys Leu Gln Gln Asn Tyr Ala Glu Ala Gln
        915                 920                 925
Thr Ile Val Lys Arg Leu Gln Glu Glu Glu Lys Val Ser Arg Glu Ser
    930                 935                 940
Ile Arg Ser Ala Asn Leu Glu Leu Asp Gln Leu Arg Gln Leu Asn Ile
945                 950                 955                 960
Glu Ala Glu Asn Asp Arg Ala Ser Leu Arg Gln Gln Val Ala Glu Leu
                965                 970                 975
Glu Glu Gln Leu Glu Leu Ala Lys Arg Ser Ile Ser Leu Asn Gly Leu
            980                 985                 990
Asn Gly Asp Ala Gln Asn Ser Gly Pro Ile Gln Pro Pro Ala Gly Gly
        995                 1000                1005
Leu Ile Asn Leu Val Ser Ser Lys Lys Ser Lys Pro Lys Arg Arg Ser
    1010                1015                1020
Ala Gly Ala Glu Lys Ile Asp Thr Asp Arg Phe Ser Gly Ala Tyr Asn
1025                1030                1035                1040
Pro Arg Pro Val Ser Met Ala Ile Pro Ser Ser Thr Phe Gly Arg Gln
                1045                1050                1055
Asn Phe Pro Gly His Thr Phe Ser Pro Gly Leu Asp Thr Val Glu Val
            1060                1065                1070
Glu Leu Glu Asn Xaa Leu Ser
        1075
```

<210> 37520
<211> 296
<212> PRT
<213> A.fumigatus

<400> 37520

```
Pro Ile Gly Tyr Ser Asn Val Ala Arg Thr Met Gln Glu Phe Leu Ser
1               5                   10                  15
Leu Thr Ser Arg Asp Ala Ile Gln Ala Leu Phe Gln Ser Tyr Thr Leu
            20                  25                  30
Asp Pro Leu Gln Phe Tyr Ile Leu Gly Gly Asn Val Ala Tyr Ser Leu
        35                  40                  45
Ser Pro Ala Met His Asn Ala Ala Phe Arg His Cys Gly Met Arg His
    50                  55                  60
```

```
Thr Tyr Ser Ile Pro Glu Ser Pro Ser Leu Ala Ala Leu Asp Arg Leu
65                  70                  75                  80
Gly Arg Asp Pro His Phe Gly Gly Ala Ser Ile Val Gln Pro Trp Arg
                85                  90                  95
Val Gln Val Phe Gln Lys Leu Ala Ser Lys Ser Arg His Ala Glu Ala
            100                 105                 110
Ile Gly Ala Val Asn Thr Ile Met Pro Leu Arg Ala Arg Ala Asp Gly
        115                 120                 125
Thr Met Phe Pro Leu Gln Glu Gln Ala Ser Arg Arg Asn Gln Ala Gly
    130                 135                 140
Pro Val Leu Gly Trp Tyr Gly Glu Asn Thr Asp Trp Val Ser Ile Met
145                 150                 155                 160
Thr Cys Ile Ser Arg His Leu Ser Pro Arg Asn Thr Ile Ser Pro Leu
                165                 170                 175
Lys Ser Ala Gly Leu Val Ile Gly Ala Gly Gly Met Ala Arg Ala Ala
            180                 185                 190
Ile Tyr Ala Met Leu Arg Leu Gly Cys Arg Asn Ile Phe Ile Tyr Asn
        195                 200                 205
Arg Thr Leu Ser Arg Ala Glu Gly Val Ala Leu His Phe Asn Ser Trp
    210                 215                 220
Ala Ala Ser Gln Val Gly Ser Thr Gln Val Val Arg Val Leu Lys Ser
225                 230                 235                 240
Leu Glu Asp Glu Trp Pro Leu Asp Thr Cys Pro Pro Cys Leu Ile Ala
                245                 250                 255
Ser Cys Val Pro Ala Asp Pro Asp Arg Asp Glu Pro Pro Ala Asn Phe
            260                 265                 270
Glu Met Pro Thr Gln Trp Leu Gly Ser Pro Thr Gly Gly Val Ile Leu
        275                 280                 285
Glu Val Ser Asn Val Cys Arg Val
    290                 295
```

<210> 37521
<211> 93
<212> PRT
<213> A.fumigatus

<400> 37521

```
Arg Asp Leu Ala Asp Arg Phe Ser Leu Thr Gln Phe Ala Tyr Lys Pro
1               5                   10                  15
Leu Asp Thr Pro Leu Leu Arg Gln Met Arg Arg Phe Arg Arg Glu Thr
            20                  25                  30
Gly Arg Pro Trp Ile Leu Val Gly Gly Leu Glu Leu Val Ser Glu Gln
        35                  40                  45
Ala Val Ala Gln Phe Glu Leu Leu Thr Gly Arg Lys Ala Pro Arg Arg
    50                  55                  60
Leu Met Thr Leu Glu Ala Leu Gln Asn Tyr Val Gly Glu Asp Gly Pro
65                  70                  75                  80
Leu Asp Glu Lys Glu Ile Gln Ala Arg Leu Gly Tyr Thr
                85                  90
```

<210> 37522
<211> 124
<212> PRT
<213> A.fumigatus

<400> 37522

```
Tyr Gly Val Ile Glu Gln Ser Leu Cys Arg Phe Gly Leu Gly Leu Pro
1               5                  10                  15
His Arg Gln Tyr Gly Leu Val Thr Gly Glu Phe Arg Lys Lys Asp His
            20                  25                  30
Arg Ser Phe Phe Gly Asn Asp Tyr Glu Thr Trp Asp Pro Asp Lys Val
        35                  40                  45
Leu Ala Glu Ala Lys Leu Val His Phe Ser Asp Trp Pro Leu Pro Lys
    50                  55                  60
Pro Trp Val Leu Ser Asn Gln Lys Leu Leu Ala Glu Ile Leu Pro Lys
65                  70                  75                  80
Cys Asp Phe Lys Pro Gly Thr Met Gln Glu Arg Gly Cys Arg Asp Arg
                85                  90                  95
Glu Val Trp Lys Ser Leu Tyr Glu Asp Phe Arg Arg Arg Arg Lys Val
            100                 105                 110
Cys Pro Lys Ile Arg Thr Ile His Thr Glu Tyr Gly
        115                 120
```

<210> 37523
<211> 163
<212> PRT
<213> A.fumigatus

```
<400> 37523
Gln Gly Gln Pro Val Ala Ser Ala Arg Gln Gly Glu Val Gln Gly Val
1               5                  10                  15
Ala Ser Thr Tyr Gln Cys Gly Asn Asp Gln Gly Trp Arg Arg Tyr Ala
            20                  25                  30
Ser Pro Gly Ser Glu Ala Gln Phe Ala Phe Ser Ser Lys Ala Glu Leu
        35                  40                  45
Ala Leu Thr Leu Ile Thr Ile Asp Thr Gly Ser Gly Glu Ser Trp Asp
    50                  55                  60
Lys Ser Ile Ala Lys Leu Leu Ala Phe Gly Glu Thr Glu Tyr Asp Arg
65                  70                  75                  80
Val Ile His Ile Asp Ser Asp Val Thr Val Leu Gln Ser Met Asp Glu
                85                  90                  95
Leu Phe Phe Leu Pro Pro Ala Lys Val Ala Met Pro Arg Ala Tyr Trp
            100                 105                 110
Ala Leu Pro Asp Thr Lys Thr Leu Ser Ser Leu Leu Ile Leu Ile Glu
        115                 120                 125
Pro Ser Ile Ala Asn Ser Lys Pro Ser Trp Arg Val Leu Ser Leu Leu
    130                 135                 140
Ser Thr Val Lys Trp Lys Leu Ile Arg Met Arg His Arg Gly Met Ile
145                 150                 155                 160
Trp Ser Tyr
```

<210> 37524
<211> 143
<212> PRT
<213> A.fumigatus

```
<400> 37524
Thr Met Ile Gln Pro Trp Asp Tyr Ala Ser Ile Glu Ala Ala Glu Ser
1               5                  10                  15
Leu Leu Gln Gln Pro Ser Phe Glu Pro Phe His Leu Gln Asn Leu Ile
            20                  25                  30
```

```
Asp Gly Ala Gln Thr Pro Ser Thr Ser Asn Glu Trp Leu Asp Ser Phe
        35                  40                  45
Asn Pro Lys Thr Gly Gln Ile Phe Ala Arg Ile Pro Asn Ser Ser Ala
    50                  55                  60
Gln Asp Val Glu Asp Ala Val Gln Ala Ala Glu Ser Ala Phe Ala Ser
65                  70                  75                  80
Trp Ser Gln Thr Pro Pro Ser Thr Arg Ala Ala His Leu Asn Arg Ile
                85                  90                  95
Ala Ala Leu Ile Glu Glu Arg Arg Glu Leu Phe Ala Val Trp Glu Ser
            100                 105                 110
Ile Asp Gln Gly Lys Thr Leu Ala Arg Ser Arg Val Glu Ile Asp Arg
        115                 120                 125
Ala Ile Ser Asn Phe Arg Tyr Val Phe Arg Glu Tyr Thr Gly Asp
    130                 135                 140
```

<210> 37525
<211> 192
<212> PRT
<213> A.fumigatus

```
<400> 37525
Ile Cys Leu Cys Gly Ser Arg Ile Tyr Val Gln Asn Ser Ile Tyr Asp
1               5                   10                  15
Ala Phe Leu Ser Arg Phe Val Ala Tyr Val Lys Glu His Tyr Val Leu
            20                  25                  30
Gly Gln Thr Val Gly Ala Val Val Ser Leu Ala His Tyr Arg Lys Ile
        35                  40                  45
Arg Ser Tyr Leu Ser Leu Ala Thr Gln Tyr Ala Asp Ser Phe Lys Leu
    50                  55                  60
Gly Ser Val Pro Pro Glu Thr Pro Asp Gly Gly Tyr Trp Ile Glu Pro
65                  70                  75                  80
Thr Ile Leu Thr Val Pro Asp Asp Ser Pro Ile Met Lys Asp Glu Ile
                85                  90                  95
Phe Gly Pro Val Val Thr Val Ser Ser Phe Glu Ser Glu Asp Glu Ala
            100                 105                 110
Ile Ala Arg Ala Asn Asp Ser Gln Tyr Gly Leu Ala Ser Ile Leu Leu
        115                 120                 125
Thr Arg Asp Gly Ala Arg Met Arg Arg Val Gly Glu Arg Leu Asp Ala
    130                 135                 140
Gly Leu Val Trp Val Asn Cys Trp Leu Val Arg Glu Leu Gly Thr Pro
145                 150                 155                 160
Phe Gly Gly Met Lys Ala Ser Gly Thr Gly Arg Glu Gly Gly Asp Tyr
                165                 170                 175
Ser Arg Asp Val Phe Thr Asn Val Arg Thr Val His Ile Pro Ser Val
            180                 185                 190
```

<210> 37526
<211> 156
<212> PRT
<213> A.fumigatus

```
<400> 37526
Leu Thr Ala Leu Val Asn Glu Thr Glu Val Arg Leu Gln Trp His Gln
1               5                   10                  15
Pro Ser Glu Thr Asn Glu Gln Glu Trp Leu Tyr Gln Val Gln Gly Asp
            20                  25                  30
```

```
Met Leu Leu Arg Val Ile Glu Asn Asp Thr Phe Arg Asp Ile Pro Ile
        35                  40                  45
Lys Glu Gly Glu Met Phe Leu Leu Pro Gly Thr Tyr Ser Glu Phe Gln
    50                  55                  60
Ser Ile Lys Leu Thr Leu Val Gly Asn Thr Pro His Asn Pro Val Arg
65                  70                  75                  80
Tyr Lys Asp Thr Ile Gly Leu Val Met Glu Arg Gln Arg Pro Ala Glu
                85                  90                  95
Ser Arg Asp Arg Leu Arg Trp Tyr Cys Thr Lys Gly Asn His Cys Ser
            100                 105                 110
Pro Thr Ile Ile Arg Glu Glu Val Phe His Cys Ala Asp Leu Gly Ser
        115                 120                 125
Gln Leu Lys Pro Ile Ile Glu Arg Trp Gln Gln Asp Glu Glu Ser Arg
    130                 135                 140
Arg Cys Gly Glu Cys Gly Cys Ile Ala Asp Pro Lys
145                 150                 155
```

<210> 37527
<211> 71
<212> PRT
<213> A.fumigatus

<400> 37527

```
Ile Pro Gly Arg Cys His Arg Ala Cys Met Thr Ile Ser Ile Gln Ile
1               5                   10                  15
Asn Met Ala Thr Leu Asn Pro Leu Ser Trp Val Thr Trp Leu Ala Glu
            20                  25                  30
Asn Glu Asp Lys Leu Arg Pro Pro Val Asn Asn Tyr Cys Leu Tyr Gln
        35                  40                  45
Gly Asn Asp Phe Ile Leu Met Ala Val Gly Gly Pro Asn Glu Arg Asn
    50                  55                  60
Glu Tyr His Gly Ala Ile Phe
65                  70
```

<210> 37528
<211> 186
<212> PRT
<213> A.fumigatus

<400> 37528

```
Val Leu Cys Arg Glu Val Arg Leu Met Ala Asn Trp Thr Val Leu Gly
1               5                   10                  15
Lys Val Ile Gln Asp Ala Gly Leu Pro Pro Gly Val Leu Asn Leu Val
            20                  25                  30
Tyr Gly Ala Gly Tyr Pro Thr Gly Ser Pro Leu Val Arg His Pro Arg
        35                  40                  45
Val Arg Gly Val Ser Phe Thr Gly Gly Thr Ala Thr Gly Val Gln Ile
    50                  55                  60
Arg Arg Asp Thr Val Glu Asp Ile Gly Lys His Ile Ser Leu Glu Leu
65                  70                  75                  80
Gly Gly Lys Asn Pro Thr Leu Val Leu Glu Asp Ala Asp Leu Thr Ala
                85                  90                  95
Ala Val Ala Thr Ala Ala Arg Ala Ala Phe Glu Asn Gln Gly Glu Val
            100                 105                 110
Arg Val Pro Pro Leu Pro Thr Asn Ser Asp Gly Thr Asp Lys Leu Asp
        115                 120                 125
```

```
Leu Pro Val Trp Phe Glu Asp Leu Arg Pro Lys Leu Tyr Leu Arg Arg
    130                 135                 140
Leu Ser Leu Pro Leu Arg Arg Leu Cys Gln Gly Ala Leu Arg Ala Arg
145                 150                 155                 160
Pro Asp Arg Arg Arg Arg Arg Leu Pro Arg Pro Leu Pro Gln Asp Pro
                165                 170                 175
Leu Val Ser Leu Pro Ser His Pro Ile Arg
            180                 185
```

<210> 37529
<211> 253
<212> PRT
<213> A.fumigatus

<400> 37529

```
Ala Leu Gln Tyr Leu Pro Gly Pro Gly Val Ser His Gln Ala Leu Ser
1               5                   10                  15
Gln Ala Arg Ser Tyr Ile Ser Glu Pro Leu Pro Ile Asn Thr Ser Trp
            20                  25                  30
Trp Cys Ala Lys Ser Ile Tyr Ile Gly His Pro Pro Asn Asn Ile Val
        35                  40                  45
Val Ser Ser Leu Leu Asn His Val Ser Met Pro His Ile Ile Pro Ala
    50                  55                  60
Val Ser Gly Gln His Pro Gly Arg Ile Arg Phe Arg Val Tyr Ile Lys
65                  70                  75                  80
Ser Ser Arg Asn Leu Gly Leu Pro Thr Ser Arg Ser Cys His Gln Pro
                85                  90                  95
Ser His Leu Arg Ile Leu Lys Met Ser Asn Gly Thr Pro Tyr Phe Leu
            100                 105                 110
Pro Ala Glu Lys Ala Gln Gly Leu Ala Asn Tyr Pro His Ala Arg Phe
        115                 120                 125
Ala Pro Thr Thr Ala His Arg Thr Leu Tyr Val Ser Gly Thr Ser Ser
    130                 135                 140
Arg Arg Gly Asp Gly Thr Trp Asp Gly Val Thr Glu His Ala Asp Gly
145                 150                 155                 160
Thr Trp Thr Leu Asp Ile Arg Ala Gln Thr Ala Ala Val Leu Arg Asn
                165                 170                 175
Ile Glu Gly Ile Ile His Gly Ala Thr His Gly Arg Gly Gly Leu Gln
            180                 185                 190
Asn Ile Val Asp Ala Thr Val Phe Leu Ile Asp Leu Pro Gln Asn Tyr
        195                 200                 205
Ala Gly Met Asn Glu Glu Trp Asn Lys Val Trp Pro Asp Arg Ala Asn
    210                 215                 220
Ala Pro Ala Arg Thr Thr Ile Gly Val Lys Glu Leu Pro Asn Pro Arg
225                 230                 235                 240
Leu Leu Val Glu Ile Thr Cys Thr Ala Val Val Ala Leu
                245                 250
```

<210> 37530
<211> 414
<212> PRT
<213> A.fumigatus

<400> 37530

```
Ile Ser Ile Arg Ile Ile Ile Leu Ala Ala Arg Ile Asn Met Gly Ser
1               5                   10                  15
```

```
Cys Cys Thr Asn His Arg Leu Phe Arg Ile Asp Met His Thr His Ile
            20                  25                  30
Met Pro Pro Ser Leu Pro Asp Leu Ser Ser Tyr His Ser Asn Thr Pro
        35                  40                  45
Pro Pro Pro Pro Pro Ser Ser Ser Ser Ser Asp Ser Ser Thr Ala Ser
    50                  55                  60
Ala Ala Glu Ser Pro Trp Leu Thr Leu His Pro Asn Pro Thr Asn Pro
65                  70                  75                  80
Glu Glu Val Asp Met Tyr Val Gly Asp Arg Phe Phe Arg Thr Val Ala
                85                  90                  95
Lys Asn Cys Tyr Asp Thr Ala Thr Arg Leu Ala Glu Met Asp Ala Ala
            100                 105                 110
Gly Thr Asp Val Gln Val Leu Ser Thr Ile Pro Ile Leu Phe Phe Tyr
        115                 120                 125
Asp Gln Pro Ser Ala Pro Ala Thr Leu Leu Ala Arg His Leu Asn Asp
    130                 135                 140
His Ile Ala Ser Val Cys Arg Gln His Pro Thr Arg Phe Leu Gly Leu
145                 150                 155                 160
Ala Thr Val Pro Leu Gln Asp Val Pro Ala Ala Val Ala Glu Leu His
                165                 170                 175
Arg Ala Lys Gln Glu Leu Gly Leu His Gly Val Glu Ile Gly Thr Thr
            180                 185                 190
Ile Asp Gly Met Thr Leu Asp Asp Pro Thr Leu His Pro Phe Trp Ala
        195                 200                 205
Ala Cys Glu Glu Leu Asn Met Pro Val Phe Val His Pro Leu Gly Tyr
    210                 215                 220
Thr Trp Pro Lys Glu Asn Pro Arg Arg Trp Ala Lys Tyr Trp Ser Ser
225                 230                 235                 240
Trp Leu Ile Gly Met Pro Cys Glu Thr Ala Leu Ala Leu His Leu Leu
                245                 250                 255
Ile Cys Ser Gly Thr Leu Leu Lys Phe Pro Arg Leu Lys Leu Cys Phe
            260                 265                 270
Ala His Ala Gly Gly Ser Phe Pro Ala Leu Leu Gly Arg Ile Gln His
        275                 280                 285
Gly Tyr Asp Cys Arg Pro Asp Leu Val Ala Gly Asp Ala Gly Gly Val
    290                 295                 300
Thr Pro Thr Glu His Ala Thr Val Arg Glu Asn Ile Trp Ile Asp Ser
305                 310                 315                 320
Leu Thr His Asp Val Glu Leu Leu Glu Tyr Leu Val Lys Lys Val Gly
                325                 330                 335
Ala His Lys Met Ile Met Gly Ser Asp Tyr Pro Phe Pro Leu Gly Glu
            340                 345                 350
Val Pro Glu Ala Gly Arg Met Ile Ala Lys Asp Gly Arg Leu Glu Gly
        355                 360                 365
Phe Leu Ser Trp Arg Gln Arg Ala Glu Ile Leu Ala Gly Asn Ala Leu
    370                 375                 380
Arg Phe Leu Asn Leu Asp Lys Asp Glu Lys Trp Arg Gly Leu Met Glu
385                 390                 395                 400
Glu Arg Trp Arg Met Phe Glu Lys Val Tyr Ile Asn Val Phe
                405                 410
```

<210> 37531
<211> 156
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (90)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37531
Leu Lys Arg Asp Met Leu Pro Tyr Ile Leu Asp Gly Ile Pro Pro Asp
1 5 10 15
Leu Asp Thr Ser Arg Cys Thr Thr Gly Glu Arg Asn Thr Pro Asp Thr
20 25 30
Gly Met Pro Asp Gln Arg Arg Ser Gly Gly Ile Ala Arg Pro Ile Asn
35 40 45
Glu Val Gln Asp Thr Arg Arg Lys Ser Arg Ile Leu Asp Tyr Leu Ser
50 55 60
Lys Tyr Cys Pro Ile Ser His Glu Pro Asn Leu Pro Ala Glu Asn Ser
65 70 75 80
Gln Tyr Ala Glu Thr Leu Val Ile Ser Xaa Gly Phe Ala Thr Ala Val
85 90 95
His Pro Asn Ala Arg His Gly Ala Ile Phe Gln Val Tyr Arg Tyr Ser
100 105 110
Gly Met Phe His Gly Ala Ile Ser Ala Asn Thr Pro Ile Gly Glu Arg
115 120 125
Cys Ser Asn Val Ser Thr Leu Leu Ser Val Gln Arg Ala Ala Val Leu
130 135 140
Cys Cys Trp Met Tyr Val Ala Lys Tyr Val Ser His
145 150 155

<210> 37532
<211> 94
<212> PRT
<213> A.fumigatus

<400> 37532
Ala Thr Ala Ser Ser Ala Leu Ser Arg Lys Thr Ala Thr Thr Arg Gln
1 5 10 15
His Asp Ser Pro Arg Trp Thr Arg Gln Gly Pro Thr Cys Lys Ser Leu
20 25 30
Ala Arg Ser Pro Ser Ser Ser Ser Thr Thr Ser Pro Pro Pro Pro Arg
35 40 45
Pro Ser Ser Arg Asp Thr Ser Thr Thr Thr Ser Pro Pro Ser Ala Ala
50 55 60
Asn Thr Arg Pro Asp Ser Ser Ala Ser Gln Pro Cys Leu Tyr Lys Thr
65 70 75 80
Ser Pro Pro Pro Ser Gln Ser Cys Thr Ala Pro Ser Arg Asn
85 90

<210> 37533
<211> 103
<212> PRT
<213> A.fumigatus

<400> 37533
Ser Phe Gly Arg Arg Ser Ser Asn His Thr Gly Arg Ser Asn Leu Ser
1 5 10 15
Val Pro Ser Glu Phe Val Gly Lys Gly Gly Thr Arg Thr Ser Pro Trp
20 25 30

```
Phe Ser Asn Ala Ala Leu Ala Ala Val Ala Thr Ala Ala Val Arg Ser
        35                  40                  45
Ala Ser Ser Lys Thr Ser Val Gly Phe Phe Pro Pro Ser Ser Ser Glu
    50                  55                  60
Ile Cys Phe Pro Ile Ser Ser Thr Val Ser Leu Arg Ile Trp Thr Pro
65                  70                  75                  80
Val Ala Val Pro Pro Val Asn Glu Thr Pro Leu Thr Arg Gly Cys Leu
                85                  90                  95
Thr Lys Gly Asp Pro Val Gly
            100
```

<210> 37534
<211> 291
<212> PRT
<213> A.fumigatus

<400> 37534

```
Pro Val Leu Arg Val Asp Asn Met Val His Ser Asn Pro Ser Tyr Asp
1               5                   10                  15
Leu Pro Ala Asn Tyr Ser Asp Tyr Gln Ala Tyr His His Tyr Ser Ser
            20                  25                  30
Gln Leu Ser Leu Ser Ser Ser Pro Ser Ser Asp Gly Ser Ser Ala Glu
        35                  40                  45
Asn Pro Asp Asn Ser Thr Pro Cys Ser Ile Val Trp Val Asn Thr Leu
    50                  55                  60
Glu Thr Ala Phe Thr Phe Leu Asp Pro Trp Ala Leu Ser Thr Thr Gln
65                  70                  75                  80
Val Tyr Pro Leu Gly Ala Ser Thr Ser Leu Leu Glu Ala Pro Lys Asp
                85                  90                  95
Gly Lys Leu Asp Leu Phe Ser Tyr Cys Asp Glu Gly Thr Ser His Thr
            100                 105                 110
Thr Ala Pro Asn Thr Arg Pro Asp His Val Glu Ile Ser Leu Glu Tyr
        115                 120                 125
Pro Arg Ala Thr Glu Ser Ser Ser Gly Trp Ile His Gly Val Glu Gly
    130                 135                 140
Tyr Gly Arg Asn Gly Pro Asp Phe Gln Ile Tyr Leu Thr Pro Ser Pro
145                 150                 155                 160
Ala Ala Glu His Phe Pro Gln Pro Ser Glu Ala Met His Asn Thr Pro
                165                 170                 175
Ser Pro Ala Thr Thr Ser Thr Thr Ser Ser Asp Ser Ser Gln His Val
            180                 185                 190
Asn Trp Gly Arg Thr Glu Val Glu Arg Glu Ile Glu Arg Asn Asp Ala
        195                 200                 205
Glu Lys Asn Ser Ile Pro Asp Asp Ser Gly Pro Thr Asp Leu Pro Tyr
    210                 215                 220
Ser His Leu Ile Ala Glu Ala Leu Lys Ala Ala Pro Asp Arg Lys Arg
225                 230                 235                 240
Thr Leu Gln Glu Ile Tyr Ser Trp Phe Glu Gln Asn Thr Ser Lys Gly
                245                 250                 255
Arg Asp Gln Arg Ser Lys Gly Trp Gln Asn Ser Ile Arg His Asn Leu
            260                 265                 270
Ser Met Asn Ala Val Cys Asn Pro Thr Asp Leu His Ser Phe Thr Phe
        275                 280                 285
Ser Leu Phe
    290
```

<210> 37535
<211> 269
<212> PRT
<213> A.fumigatus

<400> 37535
Ser Leu Phe Met Lys Gly Gly Gly Phe Ala Leu Ser Pro His Phe Gln
1 5 10 15
Gln Val Phe Thr Ser His Phe Gln Asn Asn Asn Tyr Ser Ser Ser Val
20 25 30
Arg Pro Ser Ser Ser Ser Ser His Ser Thr His Gly Gln Thr Ala Ser
35 40 45
Phe Ala Gln Ser Gly Arg Pro Gln Ser Thr Ser Gly Gly Ile Asn Ala
50 55 60
Ala Pro Thr Ile His Gly Arg Tyr Ser Thr Lys Tyr Leu Pro Tyr Ala
65 70 75 80
Leu Leu Asp Phe Glu Lys Asn Gln Val Phe Val Asp Ala Val Ser Gly
85 90 95
Thr Pro Glu Asn Pro Leu Trp Ala Gly Asp Asn Thr Ala Phe Lys Phe
100 105 110
Asp Val Ser Arg Lys Thr Glu Leu Asn Val Gln Leu Tyr Leu Arg Asn
115 120 125
Pro Ser Ala Arg Pro Gly Ala Gly Arg Ser Glu Asp Ile Phe Leu Gly
130 135 140
Ala Val Arg Val Leu Pro Arg Phe Glu Glu Ala Gln Pro Tyr Val Asp
145 150 155 160
Asp Pro Lys Leu Ser Lys Lys Asp Asn Gln Lys Ala Ala Ala Ala His
165 170 175
Ala Asn Asn Glu Arg His Leu Gly Gln Leu Gly Ala Glu Trp Leu Asp
180 185 190
Leu Gln Phe Gly Thr Gly Ser Ile Lys Ile Gly Val Ser Phe Val Glu
195 200 205
Asn Lys Gln Arg Ser Leu Lys Leu Glu Asp Phe Asp Leu Leu Lys Val
210 215 220
Val Gly Lys Gly Ser Phe Gly Lys Val Met Gln Val Met Ser Val Phe
225 230 235 240
Ser Ser Thr Met Pro Ser Leu Met Ile Ile Leu Ile Phe Ser Gln Glu
245 250 255
Lys Arg His Trp Ser Asn Leu Arg Ser Gln Asp His Ser
260 265

<210> 37536
<211> 222
<212> PRT
<213> A.fumigatus

<400> 37536
Val Ala Tyr Tyr Glu Gly His Pro Ser His Ser Trp Leu Ile Asn Arg
1 5 10 15
Ile Ala Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Leu Leu Leu
20 25 30
Gly Asn Gly Tyr Thr Lys Thr Val Asp Trp Trp Thr Leu Gly Val Leu
35 40 45
Leu Tyr Glu Met Leu Thr Gly Leu Pro Pro Phe Tyr Asp Glu Asn Thr
50 55 60
Asn Asp Met Tyr Arg Lys Ile Leu Gln Glu Pro Leu Thr Phe Pro Ser

65 70 75 80
Ser Asp Ile Val Pro Pro Ala Ala Arg Asp Leu Leu Thr Arg Leu Leu
85 90 95
Asp Arg Asp Pro Gln Arg Arg Leu Gly Ala Asn Gly Ala Ala Glu Ile
100 105 110
Lys Ser His His Phe Phe Ala Asn Ile Asp Trp Arg Lys Leu Leu Gln
115 120 125
Arg Lys Tyr Glu Pro Ser Phe Arg Pro Asn Val Val Cys Ile Asn Leu
130 135 140
Pro Phe Tyr Gln Ala Leu Pro Leu Thr Ile Pro Leu Gln Met Gly Ala
145 150 155 160
Ser Asp Thr Thr Asn Phe Asp Thr Glu Phe Thr Ser Glu Ala Pro Gln
165 170 175
Asp Ser Tyr Val Asp Gly Pro Val Leu Ser Gln Thr Met Gln Gln Gln
180 185 190
Phe Ala Gly Trp Ser Tyr Asn Arg Pro Val Ala Gly Leu Gly Asp Ala
195 200 205
Gly Gly Ser Val Lys Asp Pro Ser Phe Gly Ser Ile Pro Glu
210 215 220

<210> 37537
<211> 156
<212> PRT
<213> A.fumigatus

<400> 37537
Ser Phe His Arg Lys Lys Asp Thr Gly Arg Ile Tyr Ala Leu Lys Thr
1 5 10 15
Ile Arg Lys Ala His Ile Ile Ser Arg Ser Glu Val Thr His Thr Leu
20 25 30
Ala Glu Arg Ser Val Leu Ala Gln Ile Asn Asn Pro Phe Ile Val Pro
35 40 45
Leu Lys Phe Ser Phe Gln Ser Pro Glu Lys Leu Tyr Leu Val Leu Ala
50 55 60
Phe Val Asn Gly Gly Glu Leu Phe His His Leu Gln Arg Glu Gln Arg
65 70 75 80
Phe Asp Ile Asn Arg Ala Arg Phe Tyr Thr Ala Glu Leu Leu Cys Ala
85 90 95
Leu Glu Cys Leu His Gly Phe Lys Val Ile Tyr Arg Asp Leu Lys Pro
100 105 110
Glu Asn Ile Leu Leu Asp Tyr Thr Gly His Ile Ala Leu Cys Asp Phe
115 120 125
Gly Leu Cys Lys Leu Asp Met Lys Asp Glu Asp Arg Thr Asn Ser Lys
130 135 140
Ser Pro Ile Met Lys Val Ile Arg Leu Ile His Gly
145 150 155

<210> 37538
<211> 225
<212> PRT
<213> A.fumigatus

<400> 37538
Leu Phe Thr His Lys Trp Pro Pro Arg Gln Thr Arg Glu Ser His Ser
1 5 10 15
Ser Leu Val Met Pro Ala Ile Ser Ser Lys Ala Trp Phe Pro Ser Ser

```
            20                  25                  30
Glu Arg Pro Val Arg Pro Thr Arg Ala Pro Arg Leu Cys Gly Trp Pro
        35                  40                  45
Arg Cys Val Cys Ser Ala Met Pro Leu Ser Thr Ile Lys Thr Val Met
    50                  55                  60
Pro Val Leu Pro Ile Asp Leu Cys Val Lys Leu Thr Phe Ala Glu Phe
65                  70                  75                  80
Trp Gln Ser Pro Ser His Leu Asn Gln Ile Ser Thr Pro Leu Ile Asn
                85                  90                  95
Gln Leu Ala His Ala Thr Asn Ser Ser Thr Ala Ala Thr Val Ile Ala
            100                 105                 110
Glu Ala Val Pro Ala Ile Thr Glu Leu Ala Val Ala Ala Asp Ser Thr
        115                 120                 125
Asp Asn His Lys Glu Leu Asn Thr Ala Leu Met Lys Phe Leu Arg Pro
    130                 135                 140
Ser Ala Gly Pro Asn Gly Lys Pro Ala Gly Gly Glu Asn Pro His Thr
145                 150                 155                 160
Arg Leu Ala Ala Leu Lys Ala Glu Gln Ser Leu Thr Glu Gln Leu Gly
                165                 170                 175
Glu Glu Trp Leu Ala Leu Leu Pro Glu Met Leu Pro Tyr Ile Ser Glu
            180                 185                 190
Leu Met Glu Asp Glu Asp Glu Asn Val Glu Arg Glu Val Arg Lys Trp
        195                 200                 205
Val Lys Gln Ile Glu Asn Val Leu Gly Glu Lys Leu Asp Asp Met Leu
    210                 215                 220
Thr
225
```

<210> 37539
<211> 101
<212> PRT
<213> A.fumigatus

<400> 37539

```
Trp His Arg Tyr Met Glu Pro Ser Thr Leu Ser Ala Glu Glu Phe Phe
1               5                   10                  15
Lys Arg Trp Arg Gln Ile Gly Gly Pro Pro Leu Glu Ala Gln His Thr
            20                  25                  30
Phe Gly Val Thr Ala Lys Ala Lys Asn Val Ser Glu Thr Phe Thr Arg
        35                  40                  45
Arg Leu Val Glu Gly Phe His Trp Arg Ile Leu Glu Asn Val Asp Pro
    50                  55                  60
Asn Pro Asn Asn Ile Val Gly Cys Ala Val Tyr Gln Ser His Gly Gly
65                  70                  75                  80
Lys Thr Gly Cys Leu Leu Arg Leu Glu Pro Asn Tyr Glu Arg Lys Val
                85                  90                  95
Ser Ile Leu Ser Ala
            100
```

<210> 37540
<211> 63
<212> PRT
<213> A.fumigatus

<400> 37540

```
Trp Lys Gly Pro Arg Phe Asp Pro Ala Trp Val His Tyr Asn Ala Leu
```

```
1               5                   10                  15
Leu Phe Val Leu Leu Leu Gly Leu Met Phe Thr Phe Ile Leu Asp Thr
            20                  25                  30
Ile Thr Leu Glu Tyr Arg Val His Lys Met Ser Phe Phe Phe Leu Glu
        35                  40                  45
Leu Glu Asp Thr Cys Leu Phe Met Leu Ile Thr Gly Arg Ser Thr
    50                  55                  60
```

<210> 37541
<211> 156
<212> PRT
<213> A.fumigatus

<400> 37541

```
Ser Thr Pro Ser Thr Met Ser Ser Met Arg Gly Leu Val Gln Phe Ile
1               5                   10                  15
Ala Asp Leu Arg Asn Ala Arg Ala Arg Glu Leu Glu Glu Lys Arg Val
            20                  25                  30
Asn Lys Glu Leu Ala Asn Ile Arg Gln Lys Phe Lys Ala Gly Asn Leu
        35                  40                  45
Asn Gly Tyr Gln Lys Lys Lys Tyr Val Cys Lys Leu Leu Tyr Val Tyr
    50                  55                  60
Ile Gln Gly Tyr Asp Val Asp Phe Gly His Leu Glu Ala Val Asn Leu
65                  70                  75                  80
Ile Ser Ser Asn Lys Tyr Ser Glu Lys Gln Ile Gly Tyr Leu Ala Val
                85                  90                  95
Thr Leu Phe Leu His Glu Gln His Glu Leu Leu His Leu Val Val Asn
            100                 105                 110
Ser Ile Arg Lys Asp Leu Leu Asp Asn Asn Glu Leu Phe Asn Cys Leu
        115                 120                 125
Ala Leu His Ala Val Ala Asn Val Gly Gly Arg Glu Met Gly Glu Ala
    130                 135                 140
Leu Ser Thr Asp Val His Arg Leu Leu Ile Ser Pro
145                 150                 155
```

<210> 37542
<211> 263
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (248)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37542

```
Val Phe His Leu Tyr Tyr Thr Asp Phe Pro Phe Ser Ser Ser Pro Phe
1               5                   10                  15
Val Ile Glu Asp Ser His Val Arg Glu Ile Ile Arg Ala Ser Leu Gln
            20                  25                  30
Gln Ile Met Thr Thr Ala Met Asp Thr Pro Lys Asn Val Gln Gln Asn
        35                  40                  45
Asn Ala Gln Asn Ala Ile Leu Phe Glu Ala Ile Asn Leu Leu Ile His
    50                  55                  60
Leu Asp Thr Glu His Asn Leu Met Met Gln Ile Ser Ser Arg Leu Gly
65                  70                  75                  80
```

```
Lys Tyr Ile Gln Ser Arg Glu Thr Asn Val Arg Tyr Leu Gly Leu Glu
                85                  90                  95
Ala Met Thr His Phe Ala Ala Arg Ala Glu Thr Leu Asp Pro Ile Lys
            100                 105                 110
Lys His Gln Asn Ile Ile Leu Gly Ser Leu Arg Asp Arg Asp Ile Ser
        115                 120                 125
Val Arg Arg Lys Gly Leu Asp Leu Ile Tyr Ser Met Cys Asp Thr Thr
    130                 135                 140
Asn Ala Ala Pro Ile Val Asn Glu Leu Leu Arg Tyr Leu Gln Thr Ala
145                 150                 155                 160
Asp Tyr Ala Ile Arg Glu Glu Met Val Leu Lys Val Ala Ile Leu Thr
                165                 170                 175
Glu Lys Tyr Ala Thr Asp Ala Gln Trp Tyr Ile Asp Ile Thr Leu Lys
            180                 185                 190
Leu Leu Ser Leu Ala Gly Asp His Val Asn Asp Glu Val Trp Gln Arg
        195                 200                 205
Val Ile Gln Ile Val Thr Asn Asn Glu Glu Leu Gln Ala Tyr Ala Ala
    210                 215                 220
His Thr Leu Leu Gly Tyr Leu Lys Thr Asp Cys His Glu Ser Leu Val
225                 230                 235                 240
Lys Ile Gly Cys Tyr Val Leu Xaa Glu Phe Gly His Leu Ile Ala Asp
                245                 250                 255
Asn Glu Arg Leu Glu Pro Asp
            260
```

<210> 37543
<211> 133
<212> PRT
<213> A.fumigatus

<400> 37543

```
Ile Thr Asp Ser Lys Asp Ser Ser Ser Thr Ala Pro Ser Pro Val Leu
1               5                   10                  15
Leu Cys Pro Leu Ala Leu Gln Leu Leu Asp Phe Pro Arg Ala Ser Ser
            20                  25                  30
Ser Leu Arg Leu Arg His Thr Ser Ser Tyr Asp Ser His Lys His Leu
        35                  40                  45
Lys Gln His Arg Ser Leu Leu Arg Glu Ser Leu Thr Cys Ser Thr Ile
    50                  55                  60
Tyr Ser Lys Pro Pro Ser Gln Pro Lys Asp Ala Met Val His Pro Ser
65                  70                  75                  80
Ser Thr Cys Cys Lys Thr Ser Gly Asp Gly Ser Cys Val Cys Ala Ala
                85                  90                  95
Gln Ala Lys Cys Ser Cys Gly Lys Glu Asn Ala Leu His Cys Thr Cys
            100                 105                 110
Ser Arg Ser Ala Ile Glu Asn Thr Ile Ser Gly Pro Arg Cys Ser Cys
        115                 120                 125
Arg Lys Ser Ala Arg
    130
```

<210> 37544
<211> 134
<212> PRT
<213> A.fumigatus

<400> 37544

```
Ser Gly Cys Arg Thr Ser Lys Ala Phe Val Lys Lys Lys Ala Ala Leu
1               5                  10                  15
Thr Leu Leu Arg Leu Tyr Arg Lys Tyr Pro Gly Ile Val Gln Asn Glu
            20                  25                  30
Trp Ala Glu Arg Met Ile Ser Leu Met Asp Asp Pro Asp Met Gly Val
        35                  40                  45
Thr Leu Ser Val Thr Ser Leu Ile Met Ala Leu Ala Gln Asp Arg Pro
    50                  55                  60
Glu Glu Tyr Lys Gly Ser Tyr Ile Lys Ala Ala Gln Arg Leu Lys Arg
65                  70                  75                  80
Ile Val Val Asp Asn Glu Ile Ala Pro Asp Tyr Leu Tyr Tyr Arg Val
                85                  90                  95
Pro Cys Pro Trp Ile Gln Val Lys Leu Leu Arg Leu Leu Gln Tyr Tyr
            100                 105                 110
Pro Pro Ser Arg Lys Phe Ser Ile Phe Ile Thr Gln Thr Phe Leu Ser
        115                 120                 125
Gln Ala His Pro Leu Leu
    130
```

<210> 37545
<211> 353
<212> PRT
<213> A.fumigatus

<400> 37545

```
Ser Pro Thr Met Lys Gly Ser Ser Pro Ile Glu Gln Phe Leu Ala Leu
1               5                  10                  15
Gln Gly Lys Met Ile Thr Ser Asn Asp Asn Thr Arg Ala Met Ile Leu
            20                  25                  30
Ser Ser Phe Ile Lys Val Val Asn Leu Phe Pro Glu Ile Lys Pro Gln
        35                  40                  45
Leu Leu His Ile Phe Arg Leu Tyr Ser His Ser Pro Asp Thr Glu Leu
    50                  55                  60
Gln Gln Arg Ala Phe Glu Tyr Leu Thr Leu Ala Thr Leu Pro Thr Asp
65                  70                  75                  80
Asp Leu Leu Arg Thr Val Cys Asp Glu Met Pro Pro Phe Ser Glu Arg
                85                  90                  95
Thr Ser Ile Leu Leu Ser Arg Leu His Gln Lys Thr Ala Gly Thr Thr
            100                 105                 110
Glu Lys Lys Thr Trp Val Val Gly Gly Lys Asp Ala Asn Ala Asp Lys
        115                 120                 125
Lys Glu Val Leu Leu Ala Gln Asn Thr Gly Leu Lys Arg Thr Phe Thr
    130                 135                 140
Thr Ile Val Asn Gly Thr Lys Thr Gly Ala Asn Gly Ser Ala Ala Thr
145                 150                 155                 160
Ser Asn Ala Ser Gly Asp Leu Ala Gly Leu Asp Leu Ser Ala Pro Pro
                165                 170                 175
Ala Pro Pro Pro Asn Met Ala Ser Ala Ala His Leu Thr Pro Asp Trp
            180                 185                 190
Glu Pro Gly Tyr Asn Arg Leu Tyr Phe Ala Asp Glu Gly Val Leu Phe
        195                 200                 205
Glu Asp Ala Gln Ile Gln Val Gly Leu Arg Ser Glu Tyr Arg Gly His
    210                 215                 220
Met Gly Val Val Lys Ile Tyr Ile Ser Asn Lys Ser Ser Phe Ala Ile
225                 230                 235                 240
Gly Ser Leu Thr Thr Thr Leu Asp Asn Pro Ala Ala Pro Asn Leu Lys
```

```
                245                 250                 255
Ile Asp Ser Lys Ser Leu Pro Glu Pro Ser Val Pro Ala Ala Gly Gln
            260                 265                 270
Thr Gln Gln Thr Leu Leu Val Glu Ala Pro Arg Pro Phe Ser Asp Ala
        275                 280                 285
Pro Thr Ile Arg Ile Ser Tyr Leu Ala Gly Ala Leu Gln Ala Tyr Thr
    290                 295                 300
Leu Gln Leu Pro Val Leu Met Ala Pro Leu His Gly Ala Val Asp Ser
305                 310                 315                 320
Val Ser Gly Arg Val Leu Gln Ala Val Glu Ala Asp Trp Arg Ser Pro
                325                 330                 335
Thr Arg Gly Ala Ala His Val Arg Arg His Cys Gln Gly Glu Glu Cys
            340                 345                 350
Gln
```

<210> 37546
<211> 351
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (5)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37546

```
Arg Arg Ala Cys Xaa Arg Lys Ser Lys Gly Glu Pro Glu Pro Gln Val
1               5                   10                  15
Asp Leu Gly Gly Pro Arg Lys Leu Asn Phe Glu Gln Ile Tyr Ser Phe
            20                  25                  30
Phe Lys Asp Ile Thr Ser Gly Leu Arg His Leu His Val Asn Gly Tyr
        35                  40                  45
Ile His Arg Asp Leu Lys Pro Asn Asn Cys Leu Leu His Glu Thr Ser
    50                  55                  60
Asp Gly Leu Arg Val Leu Val Ser Asp Phe Gly Glu Val Gln Ala Gln
65                  70                  75                  80
Asp Thr Thr Arg Leu Ser Thr Gly Ala Thr Gly Thr Val Ser Tyr Cys
                85                  90                  95
Ala Pro Glu Val Leu Arg Arg Glu Tyr Pro Gly Gly Pro Phe Gly Asn
            100                 105                 110
Phe Thr Phe Lys Ser Asp Ile Phe Ser Leu Gly Met Ile Leu His Phe
        115                 120                 125
Leu Cys Phe Ala Glu Leu Pro Tyr Arg Asn Ala Asp Leu Ile His Glu
    130                 135                 140
Glu Lys Glu Asp Leu Asp Gln Leu Arg Ala Glu Ile Ser Gln Trp Thr
145                 150                 155                 160
Gly Phe Asp Asp Glu Arg Arg Leu Arg Pro Asp Leu Pro Glu Lys Leu
                165                 170                 175
Tyr Thr Phe Leu Lys Arg Leu Leu Ser Val Asp Pro Asp Arg Arg Pro
            180                 185                 190
Thr Ala Asp Glu Val Leu Ser Gly Ile Gln Ala Gly Val Asn Gly Asn
        195                 200                 205
Glu His Phe Arg Phe Arg Arg Ser Ser Ser Thr Ser Pro Asp Pro Arg
    210                 215                 220
Thr Asn Ser Arg Ile His Pro Val Asp Ser Pro Asp Val Ser Ser Val
```

225 230 235 240
Gly Arg Ser Leu Ser Pro Arg Asn Thr Leu Ala Gly Ser Pro Val Ala
245 250 255
Leu Arg Cys Ser Pro Asn Tyr Glu Pro Asn Ser Ala Val Leu Glu Ala
260 265 270
Ala Ser Val Ala Asn Ser Asn Val Thr Glu Glu Arg Asp Ser Leu Asn
275 280 285
Ser Glu Arg Glu Leu Met Ile Arg Pro Arg Phe Ser Ala Thr Pro Pro
290 295 300
Pro Met Gln Asp His Ile Asp Arg Asp Lys Gln Thr Asn Glu Asn Arg
305 310 315 320
Asp Thr Arg Pro Leu Gln His Leu Leu Pro Pro Pro Pro Thr Arg His
325 330 335
Phe Leu Ala Arg Val Leu Arg Ser Ser Leu Val Ser Ser Ile Ala
340 345 350

<210> 37547
<211> 356
<212> PRT
<213> A.fumigatus

<400> 37547
Tyr Val Ser Ala Asp Pro Ala Ser Pro Gly Val Lys Thr Leu Ala Glu
1 5 10 15
Leu Arg Arg Glu Met Leu Arg Tyr Ser Leu Asp Glu Val Gly Ala Val
20 25 30
Val Ala Glu Leu Glu Leu Asp Glu Asp Ala Asp Glu Val Ser Val Asp
35 40 45
Asp Glu Tyr Asp Tyr Asp Tyr Asp Asp Asp Glu Glu Glu Glu Glu Asp
50 55 60
Glu Phe Gly Arg Thr Arg Pro Val Leu Asp Glu Asp Tyr His Arg Gln
65 70 75 80
Met Arg Glu Leu Glu Lys Lys Leu Asn Ala Lys Gly Leu Trp Asn Val
85 90 95
Gly Lys Asp Thr Thr Ser Leu Pro Glu Asp Ile Gln Lys Glu Leu Glu
100 105 110
Arg Pro Ala Val Val Arg Ile Glu Lys Ser Asp Asn Ser Val Asp Thr
115 120 125
Val Met Lys Glu Ser Lys Pro Lys Lys Lys Val Ala Phe Ala Glu Glu
130 135 140
Leu Asp Ile Ala Pro Ala Pro Lys Pro Ala Val Pro Glu Lys Lys Thr
145 150 155 160
Leu Pro Pro Lys Gln Pro Glu Val Pro Ala Met Ala Asp Ser Ile Val
165 170 175
Glu Arg Ile Gln Gln Asn Gly Lys Thr Pro Ala Ala Ser Ser Gly Pro
180 185 190
Lys Lys Ala Ser Arg Phe Lys Ser Ala Arg Lys Ala Thr Thr Glu Glu
195 200 205
Ile Pro Ser Val Val Pro Pro Ile Asn Ser Ile Arg Ala Ser Asp Leu
210 215 220
Arg Ser Ser His Arg Lys Pro Met Val Pro Thr Pro Asp Ser Ile Pro
225 230 235 240
Leu Phe Pro Ala Lys Pro Arg Gln Pro Lys Pro Phe Ser Gln Pro Ile
245 250 255
Ser Asp Ile Ile Glu Lys Pro Asn Pro Pro Pro Gln Pro Glu Gly Thr
260 265 270

```
Lys Gly Lys Val Leu Ala Asp Thr Leu Val Glu Arg Thr Val Ser Glu
        275                 280                 285
Gly Ala Ala Val Ala Pro Glu Pro Asp Glu Leu Asp Glu Gln Leu His
    290                 295                 300
Arg Lys Glu Ile Ala Thr Glu Phe Tyr Arg Met Arg Asn Arg Lys Ile
305                 310                 315                 320
Gln Gln Asn Gly Gly Phe Leu Asp Asp Glu Pro Glu Met Val Pro Ile
                325                 330                 335
Asp Thr Asp Glu Ala Pro Lys Arg Val Ser Lys Phe Lys Ala Ala Arg
            340                 345                 350
Met Arg Gln Ser
        355
```

<210> 37548
<211> 112
<212> PRT
<213> A.fumigatus

<400> 37548

```
Thr Leu Gly Pro His Ile Arg Asp Thr Cys Met Asp Tyr Leu Asn Gln
1               5                   10                  15
Val Thr Ala Leu Thr Glu Lys Val Leu Gln Ala Ile Gly Val Ser Leu
            20                  25                  30
Gly Tyr Asp Glu Ser Tyr Phe Asp Glu Ile Cys Thr Glu Thr Met Ala
        35                  40                  45
Phe Tyr Gln Leu Leu His Tyr Pro Pro Gln Pro Ala Asp Ala Asp Pro
    50                  55                  60
Leu Gln Arg Gly Ile Gly Ala His Arg Asp Phe Gly Val Ile Thr Leu
65                  70                  75                  80
Leu Leu Gln Gly Met Ser Pro Gly Trp Arg Cys Gly Thr Arg Ser Arg
                85                  90                  95
Ser His Ile Thr Leu Cys His Gln Ser Arg Gly His Met Trp Cys Thr
            100                 105                 110
```

<210> 37549
<211> 193
<212> PRT
<213> A.fumigatus

<400> 37549

```
His Leu Tyr Gly Leu Pro Gln Pro Ser Asn Arg Pro His Arg Glu Ser
1               5                   10                  15
Pro Thr Ser His Arg Arg Val Pro Gly Leu Arg Arg Val Leu Leu Arg
            20                  25                  30
Arg Asp Leu His Gly Asn His Gly Leu Leu Pro Val Ala Ser Leu Pro
        35                  40                  45
Ser Pro Ala Cys Arg Arg Arg Pro Ala Ala Ala Arg Tyr Arg Arg Pro
    50                  55                  60
Pro Arg Leu Trp Arg His His Ala Ala Ala Thr Gly Asp Val Pro Gly
65                  70                  75                  80
Leu Glu Val Trp Asp Glu Glu Ser Gln Ser Tyr Tyr Pro Val Ser Pro
                85                  90                  95
Ile Glu Gly Ala Tyr Val Val His Leu Gly Asn Leu Phe Gln Gln Trp
            100                 105                 110
Pro Asn Asp Lys Tyr Met Ser Asn Val His Arg Val Ile Asn Arg Ser
        115                 120                 125
```

```
Asp Val Asp Arg Tyr Cys Ile Pro Phe Asn Tyr Asn Gly Asn Leu Asp
    130                 135                 140
Phe Val Ile Arg Cys Ile Asp Ser Cys Arg Ala Lys Pro Glu Asp Glu
145                 150                 155                 160
Lys Tyr Ala Pro Ile Ser Val Asp Asp Tyr Ile Arg Gln Lys Tyr Lys
                165                 170                 175
Asp Val Tyr Gly Arg Val Gly Ile Tyr Ser Val Ala Glu Arg Val Lys
            180                 185                 190
Glu
```

<210> 37550
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37550

```
Phe Tyr Leu Cys Leu Ser Lys Asp Ile Arg Lys Arg His Pro Gly Gly
1               5                   10                  15
Phe Phe Gln Arg Ser Ile Glu Gln Gly His Glu Lys His Arg Gly Lys
            20                  25                  30
Val Ala Tyr Phe Thr Glu Arg Pro Asp Ile Arg Leu Ala Thr Thr Thr
        35                  40                  45
Lys Asp Asp Val Gly Glu Ser Gln Tyr Leu Ala Ala Gly Gly Arg Ser
    50                  55                  60
Thr Gln Thr Ala
65
```

<210> 37551
<211> 283
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (20)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37551

```
Lys Gly Gln Pro Leu Met Thr Arg Phe Ala Val Ser Gln Ile Pro Ser
1               5                   10                  15
Leu Ala Val Xaa His His Val Ser Arg Arg Gln Ser Arg Leu Val Ala
            20                  25                  30
Pro Thr Val Ser Val Phe Ala Arg Ser Pro Ser Ala Phe Ser Thr Thr
        35                  40                  45
Ser Asp Asn Gln Glu Pro Asn Leu Pro Leu Ala Gly Ile Glu Ala Val
    50                  55                  60
His Ile Ala Lys Thr Phe Ser Thr Trp Pro Val Asp Ala Thr Asn Val
65                  70                  75                  80
Thr Arg Arg Glu Phe Arg Lys Tyr Val Glu Gly Ser Ser Ser Ile Leu
                85                  90                  95
His Ile Gly Thr His Gly Asp Val Asp Tyr Arg Asn Pro Leu Leu Ser
            100                 105                 110
Ser Ile Ser Met Gly Glu Asp Phe Arg Val Leu Asp Met Ser Thr Ile
        115                 120                 125
Lys Thr Asn Ala Asn Leu Leu Val Phe Ala Ala Cys Leu Ser Gly Leu
```

```
    130                 135                 140
Gly Arg Ala Thr Thr Gly Ser Glu Val Leu Gly Phe Ser His Val Ile
145                 150                 155                 160
Leu Ser Ser Gly Cys Gln Ala Tyr Ile Gly Thr Leu Arg Lys Val Ser
                165                 170                 175
Asp Phe Ala Ser Met Leu Leu Met Thr Leu Phe Tyr Arg Thr Leu Lys
            180                 185                 190
Lys Ala Pro Trp Met Pro Leu Ala Tyr Val Leu Arg Gln Ala Gln Ile
        195                 200                 205
Glu Leu Ser Gln Phe Asp Arg Glu His Ala Ala Arg Tyr Leu Asp Gln
    210                 215                 220
Leu Ile Gln Thr Ser Pro Ser Ser Asp Gly Asp Ser His Gly Leu Met
225                 230                 235                 240
Asp Phe Val Pro Asp Thr Asp Phe Met Ile Ser Met Gln Lys Met Ile
                245                 250                 255
Leu Ala Gln Leu Asp Trp Ser Ser Pro Phe Phe Trp Ala Pro Phe Val
            260                 265                 270
Leu Met Gly Tyr Gly Ser Leu Arg Phe Ala Thr
        275                 280
```

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<210> 37552
<211> 723
<212> PRT
<213> A.fumigatus

<400> 37552

```
Leu Leu Gly Pro Ile Phe Thr Ser Pro Val Ala Leu Asn Leu Val Leu
1               5                   10                  15
Val Asp Ala Ser Ser Ala Ile Gly Glu Asn Asn Leu Trp Asp Pro Val
            20                  25                  30
Glu Leu Glu Leu Lys Asp Arg Tyr Ser Pro Glu Val Lys Glu Cys Tyr
        35                  40                  45
Glu Ala Ala Leu Glu Leu Phe Gly Arg Ala Asn Cys Arg Arg Gly Gln
    50                  55                  60
Ala Ala Val Leu Leu Arg Gln Ala Cys Cys Leu His Ile Glu Ala Arg
65                  70                  75                  80
Arg Leu Gln Pro Thr Asp Thr Cys Arg Thr Ala Leu Met Gln Asp Ala
                85                  90                  95
Cys Ala Lys Phe Thr Gln Ser Lys Gln Leu Phe Gly Lys Asp Glu Val
            100                 105                 110
Asn Cys Gln Ile Val Thr Thr His Gln Ile Leu Leu Asp Ile Thr Ser
        115                 120                 125
Gly Asp Asn Arg Ser Val Lys Ala Thr Ala Arg Gly Ile Gly Ile Trp
    130                 135                 140
Ala Ala Gln Ala Glu Asn Gln Ser Val Gly His Cys Leu Gly Leu Leu
145                 150                 155                 160
Ile Phe Arg Phe Ala Arg Gln Glu Trp Cys Thr Phe Ala Arg Met Asp
                165                 170                 175
Asn Ala Leu Val Ala Trp Glu Cys Ala Tyr Glu Ile Ser Glu Ser Ile
            180                 185                 190
Asp Asp Val Val Leu Met Phe Gln Ser Val Val Ser Arg Ala Trp Val
        195                 200                 205
Gln Gly Glu Met Phe Asn Leu Ala Ala Leu Lys Ile Leu Val Asp Gln
    210                 215                 220
Ala Val Gly Met Phe Asp Arg Val Arg Gln Tyr Tyr Asp Thr Val Ala
225                 230                 235                 240
```

```
Lys Ser Ile Pro Asp Thr Glu Ala Glu Asp Ala Asp Arg Leu Ile Val
                245                 250                 255
Gln Thr Ser Lys Phe Asp Thr Leu Ser Ser Phe Glu Ser Lys Ala Ser
            260                 265                 270
Thr Met Tyr Phe Arg Leu Glu Asp Pro Lys Leu Ala Gln Glu Trp Gln
        275                 280                 285
Ala Lys Phe Ala Asp Ile Met Glu Asn Asp Glu Ser Phe Leu Thr Met
    290                 295                 300
Arg Glu Arg Met Glu Lys Thr Leu Asp Phe Gln Gly Leu Ser Pro Ala
305                 310                 315                 320
Leu Ser Cys Ser Asn Ser Arg Ile Lys Gly Leu Trp Gln Met Lys Val
                325                 330                 335
Ile Gly Asp Ala Met Ala Ala Lys Tyr Arg Asp Ala Lys Phe Ile Phe
            340                 345                 350
Gln Glu Trp Leu Asp Arg Gly Asp Ile Glu Arg Ala Glu Ala Val Tyr
        355                 360                 365
Arg Arg Phe Met Asp Glu Thr Lys Ile Met Glu Ser Ser Tyr Ala Arg
    370                 375                 380
Asp Ala Tyr Arg Leu Leu Phe Cys Ser Ser Val Gly Asp Glu Thr Ser
385                 390                 395                 400
Ala Lys Thr Ile Leu Ala Ser Met Asp Asp Asn Ser Leu Phe Glu Gly
                405                 410                 415
Asp Leu Asn Asp Tyr Gln Gln Gly Ile Gly Val Lys Ser Thr Phe Ala
            420                 425                 430
Gly Val Ala Asp Asn Ala Leu Met Phe Cys Leu Leu Ser Arg Asp Ala
        435                 440                 445
Ala Arg Ala His Arg Val Val Gln Ile Val Gln Lys Ile Ala Pro Thr
    450                 455                 460
Phe Tyr Asp Thr Met Asp Asp Asn Val Ile Asp Arg Ser Phe Arg Leu
465                 470                 475                 480
Ser Tyr Tyr Gly Ala Thr Met Leu Tyr Asn Gly His Leu Gln Val Ala
                485                 490                 495
Leu Arg Arg Leu Leu Asp Ala Arg Gln Leu Ile Glu Leu Arg Arg Gln
            500                 505                 510
Gln Thr Thr Asp Val Asp Ala Arg Val Gly Thr Phe Ser Ser Gly Trp
        515                 520                 525
Ile Val Glu Glu Tyr Leu Asn Leu Val Arg Ala Cys Phe Lys Cys Pro
    530                 535                 540
Asp Ala Arg Val Pro Ser Asn Met Leu Gln Glu Leu Asp His Ser His
545                 550                 555                 560
Arg Asp Asp Leu Ser Trp Glu Glu His Ala Leu Leu Phe Leu Glu Glu
                565                 570                 575
Ser Arg Ala Arg Ser Val Leu Glu Ala Leu Asn Thr Gln Val Ala Cys
            580                 585                 590
Asp Arg Asp Glu His Asn Ala Ser Ala Pro Leu Leu Glu Leu Met His
        595                 600                 605
Lys Arg Arg Leu Leu Arg Thr Leu Leu Ala Leu Arg His Arg Thr Pro
    610                 615                 620
Glu Gln Glu Gln Glu Ile Gly Glu Leu Arg Leu Gln Ile Asn His Met
625                 630                 635                 640
Glu Ala Ser Glu Val Cys Ala Ala Ala Ser Ser Phe Ile Asp Met Ala
                645                 650                 655
Ile Ser Ile Val Ala Pro Lys Leu Leu Tyr Lys Ser Ile Asn Gln Asp
            660                 665                 670
Ala Val Val Ile Glu Ala Thr Phe Gly Tyr Gln Gly Met Ile Ala Phe
        675                 680                 685
```

```
Ala Val Thr Ser Asp Gly Leu Gln Asn Ile Tyr Glu Asp Arg Ser Ser
    690                 695                 700
Ser Val Asp Ile Arg Lys Pro Val Met Gln Met Met Lys Val Leu Thr
705                 710                 715                 720
Glu Asn Ala
```

<210> 37553
<211> 345
<212> PRT
<213> A.fumigatus

<400> 37553

```
Tyr Asp Gln Glu Lys Thr Ser His Val Tyr Ser Arg Leu Ser Ala Pro
1               5                   10                  15
Asn Pro Thr Arg Phe Glu Val Ile Leu Ser Ser Leu Leu Asn Gly Glu
            20                  25                  30
Ala Ile Ser Tyr Ser Ser Gly Leu Ser Ala Leu Asn Ala Ala Leu Val
        35                  40                  45
Leu Leu Asn Pro Arg Arg Ile Ala Ile Gly Asn Gly Tyr His Gly Cys
    50                  55                  60
His Gly Val Ile Glu Met Phe Gly Arg Leu Thr Gly Leu Gln Lys Leu
65                  70                  75                  80
Asp Leu Asp Cys Pro Ala Glu Gln Leu Glu Ala Gly Asp Val Ile Leu
                85                  90                  95
Leu Glu Thr Pro Val Asn Pro Gln Gly Thr Ala Phe Asn Ile Ala Ala
            100                 105                 110
Tyr Ala Asp Lys Ala His Ser Arg Gly Ala Tyr Leu Ile Val Asp Ser
        115                 120                 125
Thr Phe Ala Pro Pro Gly Leu Gln Asp Pro Phe Ile Trp Gly Ala Asp
    130                 135                 140
Leu Ile Met His Ser Gly Ser Lys Tyr Phe Gly Gly His Ser Asp Val
145                 150                 155                 160
Leu Cys Gly Val Leu Ala Thr Gln Arg Lys Asp Trp Ala Lys Lys Leu
                165                 170                 175
Phe Gln Asp Arg Leu Tyr Leu Gly Ser Val Met Gly Asn Met Glu Ser
            180                 185                 190
Trp Leu Gly Val Arg Ser Leu Arg Thr Leu Asp Ile Arg Val Gln Arg
        195                 200                 205
Gln Ser Ser Asn Ala Ala Asn Leu Val Ser Trp Leu Asp Lys Ala Leu
    210                 215                 220
Arg Ala Gln Asn Pro Ala Ala Gly Ser Asp Glu Ala Ala Thr Gln Ala
225                 230                 235                 240
Ala Leu Glu Gln Val Phe His Ala Ser Leu Gln Lys Glu Asp Glu Glu
                245                 250                 255
Trp Leu Leu Lys Gln Met Pro Asn Gly Phe Gly Pro Val Phe Ser Ile
            260                 265                 270
Thr Met Lys Glu Glu Asp Tyr Ala Arg Lys Leu Pro Ser Lys Leu Ser
        275                 280                 285
Phe Phe His His Ala Thr Ser Leu Gly Gly Val Glu Thr Leu Ile Glu
    290                 295                 300
Trp Arg Thr Met Thr Asp Ala Thr Val Asp Arg Arg Leu Leu Arg Ile
305                 310                 315                 320
Ser Val Gly Leu Glu Asn Trp Glu Asp Leu Lys Ser Asp Leu Val Asn
                325                 330                 335
Ala Phe Arg Ala Leu Ile Gly Thr Lys
```

340 345

<210> 37554
<211> 74
<212> PRT
<213> A.fumigatus

<400> 37554
Val Asp Val Pro Val Ala Ile Ile Ala Ile Tyr Pro Leu Phe Pro Leu
1 5 10 15
Ile Ile Gly Arg Val Pro Ser Phe Ser Tyr Leu Ala Ile Thr Gln Tyr
20 25 30
Thr Gly Pro Gln His Ala Cys Phe Asp Val Thr Cys Val Leu Leu Trp
35 40 45
Gly Ser Pro Thr Ile Gly His Leu Asn Pro Pro Ala Thr Arg Gln Asp
50 55 60
Val Pro Phe Ser Val Ile His Asn Ile Leu
65 70

<210> 37555
<211> 126
<212> PRT
<213> A.fumigatus

<400> 37555
Leu Arg Asn Ile Thr Met Ala His Leu Asn Gln Ala Ile Gly Ala Ser
1 5 10 15
Thr Arg Ser Leu His Ala Asp Asp Glu Leu Asn Val Val Thr Asp Val
20 25 30
Ala Pro Pro Leu His Val Ser Thr Thr Phe Arg Tyr Ser Asp Asn Pro
35 40 45
Asp Glu Leu Val Pro Leu Thr Asp Leu Ser Gly Val Cys His Ser Ser
50 55 60
Leu Ile Asn Pro Phe Cys Ala Tyr Trp Pro Tyr Ser Asp Ile Val Asn
65 70 75 80
Leu Tyr Cys Ser Met Ile Lys Lys Lys Pro Ala Met Ser Ile Pro Val
85 90 95
Phe Pro Arg Pro Thr Arg Pro Val Ser Lys Ser Phe Tyr Arg His Ser
100 105 110
Ser Thr Ala Lys Gln Ser Ala Ile Pro Arg Gly Tyr Pro Pro
115 120 125

<210> 37556
<211> 157
<212> PRT
<213> A.fumigatus

<400> 37556
Pro Tyr Gln Ala Asn Phe Ile Arg Gln Asp Gly Leu Lys Lys Pro His
1 5 10 15
Pro Arg Arg Ala Ser Ser Ser Gly Pro Ile Pro Val Leu Gly Ser Arg
20 25 30
Ser Phe Pro His Pro Ser Phe Thr Glu Leu Gln Lys Pro Arg Gln Thr
35 40 45
Cys Ile Ala Val Ile Tyr Cys Val Ile Ser Phe Ile Leu Phe Leu Asn
50 55 60

```
Asn Ile Leu Pro Phe Leu Ala Ser Ala Ile Met Asn Ala Leu Val Leu
65                  70                  75                  80
Val Ala Val Ile Val Val Ala Val Ile Ile Gly Lys Pro Leu Ser Tyr
                85                  90                  95
Leu Lys Cys Asp Val Ile Gly Asp Leu Thr Gly Asp Gly Ser Ser Ala
            100                 105                 110
Tyr Ala Phe Ala Thr Ser Leu Asp Asn Tyr Leu Asp His Leu Gly Gly
        115                 120                 125
Lys Val Asp Tyr Lys Asn Trp Ile Ala Ala Ser Arg Gly Val Cys Leu
    130                 135                 140
Glu Ala Lys Ser Ile Trp Gly Leu Ser Ile Ala Leu Trp
145                 150                 155
```

<210> 37557
<211> 75
<212> PRT
<213> A.fumigatus

<400> 37557

```
Ile Trp Lys Val Arg Asp Thr Ser Ile Ser Ile His Gly Phe Leu Thr
1               5                   10                  15
Asp His Asn Tyr Gln Cys Leu Arg Asn Asn Tyr Ser Ile His Ser Ile
            20                  25                  30
Ala Ala Ala Tyr Ala Val Gly Leu Phe Pro His Gly Cys Tyr Tyr Val
        35                  40                  45
Lys Met Met Ala Asn Ala Lys Asp His Ala Thr Asn Ile Glu Tyr Ala
    50                  55                  60
Gln Ala Ser Leu Thr Tyr Thr Leu Asp Ser Leu
65                  70                  75
```

<210> 37558
<211> 85
<212> PRT
<213> A.fumigatus

<400> 37558

```
Gly Ala Tyr Leu Ser Arg Asn Ser Ile Lys Leu Met His Thr Thr Gln
1               5                   10                  15
Leu Ala Gly Asn Leu Ala Lys Leu Pro Thr Ser Asp Leu Asn Thr Leu
            20                  25                  30
Ser Leu Glu Tyr Ile Gly Ala Arg Leu Leu Tyr Thr Ala Leu Tyr Met
        35                  40                  45
Gly Ala Lys Ser Glu Ala Ile Ser Tyr Leu Arg Thr Gly Val Trp Ala
    50                  55                  60
Trp Ser Ile Ser Ile Pro Ile Trp Gly Leu Ile Gln Ala Gly Arg Ala
65                  70                  75                  80
Leu Asn Arg Ala Glu
                85
```

<210> 37559
<211> 342
<212> PRT
<213> A.fumigatus

<400> 37559

```
Val Arg Cys Val Pro Asn Thr Gln Leu Gln Leu Leu Asn Thr Arg Ser
```

```
1               5                   10                  15
Val Asn Met Ser Leu Ile Lys Thr Phe Ser Val Arg Leu Gln Ser Asn
            20                  25                  30
Glu Trp Ser Gln Gly Asp Gln Ser Ser Asp Ser Leu Pro Gln Ser Pro
        35                  40                  45
Leu Phe Ala Phe Ser Ala Pro Glu Ser Asp Glu Gly Thr Thr Ser Tyr
    50                  55                  60
Asn Ser Gly Asn Pro Asp Gly Asp Val Phe Thr Ala Ala Arg Glu Ser
65                  70                  75                  80
Arg Ile Ser Ser Gln Asp Ala Thr Val Ser Ser Ser Leu Glu Ala Val
                85                  90                  95
Ala Gly Cys Gly Asn Asp Gly Glu Leu Glu Pro Ser Ser His Leu Phe
            100                 105                 110
Ser Ser Thr Pro His Leu Ser Ser Gly Leu Ser Leu Asn Val Ala Asp
        115                 120                 125
Cys Ala Asp Cys Ile Lys Met Gln Asn Pro Gly Arg Lys Arg Ser Ala
    130                 135                 140
Ser Asp Ala Ser Leu Thr Asp Ser Gly Ser Asp Ser Glu Arg Thr Lys
145                 150                 155                 160
Thr Thr Gly Met Lys Pro Ser Ala Lys Cys Ile Ile Ser Asp Val Gly
                165                 170                 175
Gly Val Lys Ser Ala Pro Glu Leu Asp Lys Arg Thr Tyr Asn Ala Asn
            180                 185                 190
Glu Gly Lys Lys Gly Thr Leu Gln Pro Ser Ile Gln Ser Ser Glu Gln
        195                 200                 205
Asn Ser Arg Arg Arg His Ser Arg Thr Leu Ser Met Ile Pro Lys Pro
    210                 215                 220
Val Thr Arg Leu Asp Lys Asp Thr Val Phe Ile Pro Ala Pro Asn Gly
225                 230                 235                 240
Ser Gln Asp Thr Ser Ile Ala Ala Cys Ser Asp Lys Pro Thr Glu Glu
                245                 250                 255
Glu Asn Ala Pro Thr Pro Thr Lys Thr Thr Met Thr Glu Thr Phe His
            260                 265                 270
Arg Lys Trp Gly Asp Ser Asp Ser Phe Val Thr Ser Thr Pro Val Thr
        275                 280                 285
Ser Pro Gly Ser Leu Glu Ala Asn Glu Ser Val Ala Thr Glu Tyr Thr
    290                 295                 300
Asn Gly Pro Arg His Thr Ser Asp Thr Asp Ser Pro Glu Ala Thr Leu
305                 310                 315                 320
Gly Lys His Asn Val Leu Ser Val Phe Val Phe Lys Pro Asn Leu Glu
                325                 330                 335
Gly Val Asp Thr Thr Gly
            340
```

<210> 37560
<211> 642
<212> PRT
<213> A.fumigatus

<400> 37560

```
Arg Pro Leu Asn Trp Asn Val Ile Tyr Asn Phe Ile Leu Leu Phe Ala
1               5                   10                  15
Met Cys Phe Val Ser Ala Val Val Asn Gly Val Ala Trp Gly Ser Asp
            20                  25                  30
Asp Arg Ser Leu Asn Tyr Phe Asp Phe Gly Ser Tyr Gly Ser Thr Pro
        35                  40                  45
```

```
Val Val Thr Ala Ile Ile Thr Phe Trp Val Ala Leu Ile Leu Phe Gln
    50                  55                  60
Asn Leu Val Pro Ile Ser Leu Tyr Ile Ser Leu Glu Ile Val Arg Thr
65                  70                  75                  80
Cys Gln Ala Ile Phe Ile His Ser Asp Val Phe Met Tyr Tyr Glu Lys
                85                  90                  95
Leu Gly Ile Ser Cys Val Pro Lys Ser Trp Asn Ile Ser Asp Asp Val
            100                 105                 110
Gly Gln Ile Glu Tyr Ile Phe Ser Asp Lys Thr Gly Thr Leu Thr Gln
        115                 120                 125
Asn Val Met Asp Phe Lys Lys Cys Thr Ile Asn Gly Val Ser Tyr Gly
    130                 135                 140
Glu Ala Phe Thr Glu Ala Gln Val Gly Met Ile Arg Arg Glu Gly Gly
145                 150                 155                 160
Asp Ala Asp Thr Val Ala Ala Glu Ala Arg Glu Lys Ile Ala Ala Asp
                165                 170                 175
Thr Thr Lys Met Leu Gln Met Leu Arg Arg Ile His Asp Asn Pro Tyr
            180                 185                 190
Leu Arg Asp Glu Asn Leu Thr Phe Ile Ala Pro Asp Tyr Val Ala Asp
        195                 200                 205
Leu Glu Gly Gln Ser Gly Glu Ala Gln Lys Gln Ala Thr Glu His Phe
    210                 215                 220
Met Leu Ala Leu Ala Leu Cys His Thr Val Ile Thr Glu Gln Thr Pro
225                 230                 235                 240
Gly Asp Pro Pro Gln Ile Glu Phe Lys Ala Gln Ser Pro Asp Glu Ala
                245                 250                 255
Ala Leu Val Ser Thr Ala Arg Asp Cys Gly Phe Thr Leu Leu Gly Arg
            260                 265                 270
Ser Gly Asp Asp Leu Ile Leu Asn Val Met Gly Glu Glu Arg Thr Tyr
        275                 280                 285
Thr Val Leu Asn Thr Leu Glu Phe Asn Ser Thr Arg Lys Arg Met Ser
    290                 295                 300
Ala Ile Ile Arg Met Pro Asp Gly Thr Ile Arg Leu Phe Cys Lys Gly
305                 310                 315                 320
Ala Asp Ser Ile Ile Tyr Ser Arg Leu Ala Arg Gly Lys Gln Gln Glu
                325                 330                 335
Leu Arg Lys Lys Thr Ala Glu His Leu Glu Glu Phe Ala Arg Glu Gly
            340                 345                 350
Leu Arg Thr Leu Cys Val Ala Glu Arg Val Leu Ser Glu Glu Glu Tyr
        355                 360                 365
Arg Thr Trp Ser Lys Glu His Asp Ile Ala Ala Ala Ala Leu Thr Asp
    370                 375                 380
Arg Glu Gln Lys Leu Glu Gln Val Ser Ser Glu Ile Glu Gln Glu Leu
385                 390                 395                 400
Met Leu Ile Gly Gly Thr Ala Ile Glu Asp Lys Leu Gln Asp Gly Val
                405                 410                 415
Pro Asp Thr Ile Ser Leu Leu Ala Asp Ala Gly Ile Lys Leu Trp Val
            420                 425                 430
Leu Thr Gly Asp Lys Val Glu Thr Ala Ile Asn Ile Gly Phe Ser Cys
        435                 440                 445
Asn Leu Leu Thr Asn Asp Met Glu Leu Leu Val Phe Asn Ile Pro Glu
    450                 455                 460
Asp Gln Pro Gln Arg Ala Ser Gln Glu Leu Asp Glu Gln Leu Gln Lys
465                 470                 475                 480
Phe Gly Leu Thr Gly Ser Asp Glu Glu Leu Ile Ala Ala Arg Glu Asp
                485                 490                 495
```

```
His Arg Pro Pro Pro Ala Thr His Ala Val Val Ile Asp Gly Asn Thr
            500                 505                 510
Leu Lys Leu Met Leu Ser Asp Glu Leu Lys Gln Arg Phe Leu Leu Leu
        515                 520                 525
Cys Lys Gln Cys Lys Ser Val Leu Cys Cys Arg Val Ser Pro Ala Gln
    530                 535                 540
Lys Ala Ala Val Val Arg Leu Val Lys Asn Gly Leu Asn Ile Met Ala
545                 550                 555                 560
Leu Ser Ile Gly Asp Gly Ala Asn Asp Val Ala Met Ile Gln Glu Ala
                565                 570                 575
Asp Val Gly Val Gly Ile Val Gly Glu Glu Gly Arg Gln Ala Ala Met
            580                 585                 590
Ser Ser Asp Tyr Ala Ile Gly Gln Phe Arg Phe Leu Gln Arg Leu Ile
        595                 600                 605
Leu Val His Gly Arg Trp Ser Tyr Arg Arg Met Gly Glu Thr Ile Ala
    610                 615                 620
Asn Phe Phe Tyr Lys Val Ser Glu Val Ser Ile Asp Ala Cys His Thr
625                 630                 635                 640
Leu Cys
```

<210> 37561
<211> 93
<212> PRT
<213> A.fumigatus

<400> 37561

```
Thr Ile Thr Gln Asn Met Val Trp Thr Ile Ala Leu Phe Trp Tyr Ser
1               5                   10                  15
Leu Tyr Asn Asp Phe Asp Gly Ser Tyr Leu Phe Asp Tyr Thr Tyr Ile
            20                  25                  30
Val Leu Val Asn Val Ala Phe Thr Ser Leu Pro Val Ile Leu Met Gly
        35                  40                  45
Ile Phe Asp Gln Asp Val Asp Asp Lys Val Ser Leu Ala Val Pro Gln
    50                  55                  60
Leu Tyr Met Arg Gly Ile Glu Arg Lys Glu Trp Ser Gln Thr Lys Phe
65                  70                  75                  80
Trp Tyr Leu Ser Leu Asn Ser Trp Cys Ser Ser Ser Phe
                85                  90
```

<210> 37562
<211> 180
<212> PRT
<213> A.fumigatus

<400> 37562

```
Tyr Ala Phe Phe Leu Ala Leu Pro Ser Lys Pro Cys Lys Arg Phe Ser
1               5                   10                  15
Phe Pro Arg Asp Val Asp Ile Ile Arg Glu Gln Val Thr Gln Gly Lys
            20                  25                  30
Phe Lys Tyr Leu Asp Gln Tyr Glu Ala Phe Val Pro Pro Lys Ala Ala
        35                  40                  45
Ala Thr Ser Gly Gly Leu Ser Asn Gly Ser Ala Ala Ser Ser Asp Leu
    50                  55                  60
Gly Lys Pro Ile Gln Ser Ser Met Lys Gln Asp Pro Phe Ser Asp Asp
65                  70                  75                  80
```

```
Gln Gln Ile Tyr Pro Pro Ser Val Ala Pro Thr Ile His Thr His Asn
                85                  90                  95
Pro Arg Ser Gln Asn Gly Ser Asn Gly Thr Asn Tyr Ser Phe Asp Thr
            100                 105                 110
Thr Gln His Pro Arg Pro Gln Ser Val Gln Cys Ala Gln Arg Thr Arg
        115                 120                 125
His Ser Phe Asp Arg Ala Arg Pro Ser Tyr Asp Val Asn Ser Asp Phe
    130                 135                 140
Asn Ser Gly Ala Met Leu Ser Arg Val Asp Ser Ala Thr Gly Ile Pro
145                 150                 155                 160
Val Pro Gln Ser Pro His Ser Pro Leu Lys Ser Pro His Asp Pro Pro
                165                 170                 175
Ser Tyr Gln Val
            180
```

<210> 37563
<211> 184
<212> PRT
<213> A.fumigatus

```
<400> 37563
Arg Gln Gly Val Thr Cys Arg Pro Ser Ala Val Tyr Glu Gly His Arg
1               5                   10                  15
Ala Lys Arg Met Val Ala Asp Gln Ile Leu Val Phe Ile Ser Gln Phe
            20                  25                  30
Leu Val Phe Gln Leu Leu Leu Thr Ser Leu Arg Leu Tyr Met Leu Asp
        35                  40                  45
Gly Phe Tyr Gln Ser Ile Ile Cys Phe Tyr Met Pro Tyr Leu Leu Phe
    50                  55                  60
Ser Pro Ala Thr Phe Val His Ser Asn Gly Leu Asn Ile Asn Asp Arg
65                  70                  75                  80
Thr Arg Met Gly Val Leu Val Ala Ser Cys Ala Val Ile Ala Ser Asn
                85                  90                  95
Thr Tyr Ile Leu Met Asn Thr Tyr Arg Trp Asp Trp Leu Thr Val Leu
            100                 105                 110
Ile Asn Val Ile Ser Ser Leu Leu Ile Phe Phe Trp Thr Gly Ile Tyr
        115                 120                 125
Ser Ser Thr Thr Ala Ser Ala Gln Phe Tyr Lys Ala Ala Ala Glu Val
    130                 135                 140
Tyr Gly Ala Leu Ser Phe Trp Val Val Leu Leu Met Thr Val Ile Ile
145                 150                 155                 160
Cys Leu Leu Pro Arg Phe Thr Val Lys Ala Val Gln Lys Val Phe Phe
                165                 170                 175
Pro Ser Gly Cys Gly His His Ser
            180
```

<210> 37564
<211> 64
<212> PRT
<213> A.fumigatus

```
<400> 37564
Met Thr Val Glu Ala Glu Pro Ser Ala Cys Ser Asn Asn Ser Gln Thr
1               5                   10                  15
Arg Thr Phe Thr Cys Ala Ser Ser Gln Ile Glu Gln Gln Thr Lys Cys
            20                  25                  30
```

```
Gln Met Arg Leu Phe Glu Arg Cys Lys Arg Ser Leu Thr Val Leu Asn
        35                  40                  45
Leu Lys Ala Ser Ala Ser Leu Gln Gln Lys Val Ser Leu Gly Leu Leu
    50                  55                  60
```

<210> 37565
<211> 349
<212> PRT
<213> A.fumigatus

<400> 37565

```
Lys Arg Arg Leu Val Ser Leu Phe Tyr Arg Lys Ala Ala Ser Cys Leu
1               5                   10                  15
Leu Thr Ile Asn Gln Gly Asp Arg Thr Thr Pro Phe Ile Met Pro Pro
            20                  25                  30
Arg Gly Lys Lys His Tyr Thr Glu Ile Trp Ala Glu Glu Asp Gly Leu
        35                  40                  45
Met Asn Val Asp Gln Ala Asn Gly Asp Arg Glu Arg Leu Pro Leu Asn
    50                  55                  60
Gln Gly Arg Gly Ser Ile Asp Gln Val Thr Asp Glu Thr Val Glu Thr
65                  70                  75                  80
Asp Lys Val Ser Val Gly Pro Leu Val Ser Arg Leu Tyr Ser Leu Leu
                85                  90                  95
Arg Tyr Glu His Arg Ala Asp Pro Asp Glu Asn Ser Thr Thr Gly Ala
            100                 105                 110
Ala Asn Gly Glu Pro Ser Thr Ser Asn Phe Phe Asn Gly Asp Ser Met
        115                 120                 125
Asp Ile Asp Gln Pro Ala Gly Glu Ser Asp Thr Lys Pro Leu Pro Ser
    130                 135                 140
Ala Thr Ser Phe Pro Asp Ala Ser Pro Ser Gly Phe Lys Val Pro Ala
145                 150                 155                 160
Ala Lys Leu Asp His Ala Gln Leu Asp Glu Arg Leu Lys Ala Glu Leu
                165                 170                 175
Arg His Ile Gly Phe Leu Gly Glu Asp Asp Asn Pro Asp Tyr Asp Ala
            180                 185                 190
His Tyr Asp Asp Asp Ile Ala Gln Arg Leu Arg Leu Leu Gln Ser Glu
        195                 200                 205
Leu Lys Lys Gln Met Val Thr Asn Asn Ala Arg Lys Ala Arg Leu Leu
    210                 215                 220
Glu Ile Ala Arg Glu Arg Met Ala Tyr Gln Glu Tyr Thr Thr Ile His
225                 230                 235                 240
Asp Asp Leu Asp Ser Gln Val Gln Gln Ala Tyr Leu Lys Arg Thr Arg
                245                 250                 255
Thr Leu Gly Lys Ser Lys Lys Gly Ser Gln Ala Lys His Arg Pro Gly
            260                 265                 270
Gly Ala Gly Gly Gly Ser His Val Ala Ser Gly Ala Gly Val Ser Arg
        275                 280                 285
Pro Ala Ile Gly Asp Val Ala Arg Thr Leu Met Asp Arg Arg Lys Arg
    290                 295                 300
Trp Glu Glu Cys Ile Gly Pro Ile Phe Lys Asp Ser Lys Thr Ser Val
305                 310                 315                 320
Pro Gly Lys Gly Glu Thr Ile Phe Asp Pro Ala Val Met Ala Glu Tyr
                325                 330                 335
Glu Lys Ala Glu Leu Glu Gly Trp Asp Glu Glu Gln Glu
            340                 345
```

<210> 37566
<211> 133
<212> PRT
<213> A.fumigatus

<400> 37566
Lys Thr Ile Val Asp Arg Met Ser Gly Val Gly Pro Ile Pro Asp Ser
1 5 10 15
Lys Ser Leu Glu Ser Leu Met Glu His Leu Lys Thr Leu Ser Gln Leu
20 25 30
Ala Glu Ala Arg Val Asp Ala Cys Asp Ala Gly Ile Arg Glu Leu Ser
35 40 45
Gln Lys Arg Lys Glu Val Val Glu Asp Gln Glu Thr Tyr Asp Arg Glu
50 55 60
Thr Ala Ser Lys Val Lys Arg Asp Ile Asp Asp Asp Glu Glu Glu Pro
65 70 75 80
Ile Arg Ala Ser Lys Gly Gly Lys Leu Lys Lys Arg Arg Glu Arg Gly
85 90 95
Gly Ser Thr Lys Glu Asp Arg Pro Leu Ala His Gly Ala His Asp Ile
100 105 110
Ala Arg Gln Asp Gly Ala Glu Thr Lys Val Glu Gly Gly Thr Phe Tyr
115 120 125
Tyr Ala Leu Phe Leu
130

<210> 37567
<211> 189
<212> PRT
<213> A.fumigatus

<400> 37567
Ser Ser Ala Pro Asn Met Asp Pro Ala Asn Glu Pro Asn Leu Ala Ala
1 5 10 15
Ser Pro Ala Ser Lys Lys Ser Lys Asn Met Ala Ser Glu Val Thr Ser
20 25 30
Pro Thr Cys Pro Ser Ser Met Thr Ser Pro Lys Tyr Thr Ala Thr Ala
35 40 45
Gly Glu Ala Ser Val Thr Ala Glu Ser Pro Ser Glu Asp Asp Ser Asp
50 55 60
Glu His Gln Pro Glu Pro Ala Pro Ala Ile Pro Gln Ile Gln Val Phe
65 70 75 80
Gly Pro Asn Pro Leu Lys Phe Asp Asp Pro Thr Ile Tyr His Ile Arg
85 90 95
Glu Val Thr Pro Asp Met Thr Asp Glu Glu Lys Lys Glu Ile Tyr Cys
100 105 110
Val Asn Arg Phe Pro Lys Ser Asp Leu Ser His Met Met Ala Gly Val
115 120 125
Pro Pro Asp Lys Asp Phe Ser Asn Ala Lys Pro Thr Asn Gln Val Ser
130 135 140
Ala Asn Thr Phe Leu Ser Tyr Ile Glu Pro Tyr Val Arg Pro Leu Thr
145 150 155 160
Glu Glu Asp Ile Ala Phe Leu Lys Glu Lys Val Ser Phe Ile Val Leu
165 170 175
Pro Glu Gly Ser Phe Met Phe Ala Tyr Asn Gln Pro Gly
180 185

<210> 37568
<211> 60
<212> PRT
<213> A.fumigatus

<400> 37568
Ser Leu Thr Ile His Ala Asp Glu Leu Asn Thr Leu Asn Ile Lys Leu
1 5 10 15
Phe Pro Val Tyr Pro Ala Pro Pro Gln Val Arg Ala Trp Gln Val Pro
20 25 30
Leu Phe Thr Val Arg Tyr Gln Ala Phe Met Asp Glu Asn Trp Asp Leu
35 40 45
Thr Met Gln Arg Val Arg Leu Lys Arg Cys Asp Leu
50 55 60

<210> 37569
<211> 386
<212> PRT
<213> A.fumigatus

<400> 37569
Ile Val Pro His Ile Asn Gly Val Asn Ser Ile Arg Ile Ile Ser Ile
1 5 10 15
Leu Ala Asp Thr Asp Phe Ser Leu Thr Cys Arg Ala Ile Arg His Leu
20 25 30
Leu Tyr Tyr Gly Cys Leu Phe Leu Leu Asp Ile Phe Ser Phe Ser Ala
35 40 45
Ile Tyr Ala Pro Thr Ala Gln Phe Ser Ser Thr Ile Ala Cys Asp Glu
50 55 60
Gly Met Gln Arg Glu Cys Ala Arg Tyr Val Asn Thr Leu Phe Ala Pro
65 70 75 80
Ser Leu Ile His Gly Ser Ala Ser Ala Ala Thr Ala Pro Ser Ala Ser
85 90 95
Thr Ser Ala Leu Ser Pro Ala Ala His Gly Leu Thr Asn Ala His Val
100 105 110
Ser Gly Ile Pro Gly Asn Leu Val Gly Leu Ser Lys His Asp Pro Asp
115 120 125
Ser Val Trp Pro Pro Val Gly Asp Tyr Arg Asp Arg Arg Ser Thr Ser
130 135 140
Arg Thr Pro Ser Pro Ser Ser Ser Tyr Arg Ser Ser Thr Thr Thr Pro
145 150 155 160
Ser Asn Ser Thr Ile Leu Pro Asp Asp His Asp Pro Thr Gln Pro Pro
165 170 175
Pro Pro Pro Glu Val Val Asp Gly Val Gly Ile Val Glu Leu Tyr Ala
180 185 190
Ser Leu Lys Gln Gly Gln Ser Val Arg Gln Trp Tyr Ala Gln Asn Ser
195 200 205
Arg Lys Leu Ala Tyr Ile Asp Ile Arg Arg Phe Ile Thr Phe Gly Ile
210 215 220
Ile Lys Gly Phe Leu Tyr Arg Val His Lys Tyr Ala Tyr Ala Thr Gly
225 230 235 240
Gln Pro Ala Pro Gln Leu Lys Ser Ser His His Tyr His Asn Ser Gln
245 250 255
Ser Gln Pro Pro Ser Gly Pro Ser Ser Arg Gly Pro Gly Thr Gly Thr
260 265 270
Asn Ser Pro Tyr Ala Ser Ser Val Gly Asp Asp Ala Ala Pro Ile Ala

```
        275                 280                 285
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln His His Tyr
    290                 295                 300
Arg Gln His Pro Gly Gln Arg Gly Asp Asp Ala Arg Glu His Ala Thr
305                 310                 315                 320
Ser Val His Ser Gly Ser Arg Ser Ala Val Val Phe Asp Asp Glu Asp
                325                 330                 335
Glu Glu Glu Ile Val Asp Asn Lys Thr Leu Ser Lys Tyr Leu Asp Gly
            340                 345                 350
Met His Cys Phe Asp Gln Ile Cys Thr Glu Leu Glu Ile Ser Glu Lys
        355                 360                 365
Asp Leu Thr Ala Ala Leu Lys Lys Tyr Pro Gly Glu Val Leu Ile Ile
    370                 375                 380
His Arg
385
```

<210> 37570
<211> 93
<212> PRT
<213> A.fumigatus

<400> 37570

```
Pro Ile Gly Leu Lys Ser Pro Arg Tyr Asp Arg Asn Glu Phe Ile Phe
1               5                   10                  15
Asn Phe Cys Leu Val Leu Ala Glu Glu Glu Asp Phe Ser Ser Tyr Lys
            20                  25                  30
Ser Val Val Gln Lys Leu Ala Asp Leu Met His Gly Leu Glu Glu Gln
        35                  40                  45
Asn Gly Phe Leu Ser Arg Asp His Ser Lys Ser Gly Glu Gly Lys Val
    50                  55                  60
Tyr Ser Leu Cys Glu Thr Leu Met Glu Asp Leu Asn Asn Tyr Cys Glu
65                  70                  75                  80
Cys Met Ile Pro Ile Gly Thr Leu Pro Ser Ser Arg Gly
                85                  90
```

<210> 37571
<211> 133
<212> PRT
<213> A.fumigatus

<400> 37571

```
Val Phe Tyr Lys Val Gly Phe Gly Gly Leu Ser Tyr Thr Trp Asn Val
1               5                   10                  15
Leu Ala Ala Asp Val Thr Asn Leu Arg Asn Arg Gly Leu Ala Phe Ala
            20                  25                  30
Phe Thr Ser Ser Pro Ala Leu Ile Ser Ala Phe Ala Gly Ser Lys Ala
        35                  40                  45
Ala Ser Asp Leu Leu Ala His Ser Thr Trp Arg Trp Gly Phe Gly Met
    50                  55                  60
Trp Ala Ile Ile Leu Pro Val Val Ala Leu Pro Ile Tyr Gly Leu Leu
65                  70                  75                  80
Ala Tyr His Leu Arg Gln Ala Glu Lys Lys Gly Val Leu Val Lys Glu
                85                  90                  95
Thr Arg Asp Trp Ser Ile Thr Pro Lys Thr Val Trp Trp Ala Ile Met
            100                 105                 110
Glu Phe Asp Arg Lys Tyr Gln Pro Arg Ala Val Val Ala Ser Lys Gly
```

```
        115                 120                 125
Phe Leu Thr Glu Gly
    130

<210> 37572
<211> 267
<212> PRT
<213> A.fumigatus

<400> 37572
Lys His Ser Arg Gly Glu Thr Lys Glu Asn Glu Leu Ala Ser Ser Thr
1               5                  10                  15
Leu Phe Tyr Ser Val Asp Ser Ser Arg Pro Asn Tyr Pro Leu Asp Asn
            20                  25                  30
Met Thr Ile Lys Ala Gln Pro Thr Leu His Thr Ala Arg Leu Glu Leu
        35                  40                  45
Val Pro Leu Gly His Glu His Arg Glu Phe Thr Met Lys Leu Asp Met
    50                  55                  60
Asp Pro Glu Val Met Lys Met Val Ala Phe Gly Arg Pro Phe Thr Glu
65                  70                  75                  80
Asp Glu Ala Ile Gln Val His Thr Trp Leu Met Asn Cys Ala Thr Ser
                85                  90                  95
Val Pro Gly Phe Gly Thr Trp Val Gly Phe Ala Glu Gly Glu Phe Val
            100                 105                 110
Gly Trp Trp Val Leu Ala Pro Val Pro Thr Thr Glu Asn Pro Lys Ser
        115                 120                 125
Phe Arg Thr Asp Arg Thr Glu Tyr Gly Phe Arg Val Ser Pro Lys Phe
    130                 135                 140
Trp Gly Gln Gly Tyr Ala Lys Glu Gly Ala Arg Glu Met Val Arg Tyr
145                 150                 155                 160
Ala Phe Glu Glu Leu Gly Leu Ala Asp Val Ile Gly Glu Thr Met Thr
                165                 170                 175
Ile Asn Met Ala Ser Arg Ala Val Met Ala Gly Cys Gly Leu Thr His
            180                 185                 190
Val Glu Thr Phe Phe Asn Lys Tyr Asp Thr Pro Pro Pro Gly Ile Glu
        195                 200                 205
Glu Gly Glu Val Arg Tyr Ser Ile Thr Arg Glu Glu Trp Leu Arg Met
    210                 215                 220
Gln Lys Pro Ser Met Thr Arg Ser Arg Trp Phe Pro Ala Phe Ala Ser
225                 230                 235                 240
Trp Leu Pro Arg Leu Leu Leu Ser Arg Leu Trp Ser Tyr Ile Phe Gln
                245                 250                 255
Gly Arg Arg Leu Ala Ala Gly Ala Ala Ser Pro
            260                 265

<210> 37573
<211> 133
<212> PRT
<213> A.fumigatus

<400> 37573
Ile Thr Cys Ala Gly Ser Arg Tyr Leu Thr Phe Met Leu His Val Leu
1               5                  10                  15
Ser Val Gly Pro Ser His Ala Ala Phe Thr Val Glu Ala Ala Met Ala
            20                  25                  30
Thr Met Lys Lys Phe His Ser Ile Val Gly Glu Lys Pro Ala Gln Asp
```

```
        35                  40                  45
Ala Glu Ala Pro Ser Val Asp Asp Pro Asn Val Gly Gln Ile Arg Ala
    50                  55                  60
Asp Asp Lys Glu Ala Ala His Ala Pro Ala Asn Ala Glu Thr Asn Asn
65                  70                  75                  80
Glu Glu Ala Asn Pro Ser Asp Gly Ala Gln Ala Gly Val Lys Lys Ile
                85                  90                  95
Glu Ala Val Thr Leu Ser Trp Thr Arg Gly Thr Ala Tyr Ala Ile Leu
            100                 105                 110
Val Leu Tyr Val Ser Leu Pro Leu Ile Ala Ala Cys Ala Ser His Pro
        115                 120                 125
Lys Arg Ser Asn Cys
    130
```

<210> 37574
<211> 103
<212> PRT
<213> A.fumigatus

<400> 37574

```
Pro Gly Phe His Ser Asp Ser Ile Trp Phe Leu Thr Leu Val Asn Asp
1               5                   10                  15
Phe Arg Leu Ser Met Tyr Thr Ser Leu Asn Ala Tyr Ala Thr Ser Ser
            20                  25                  30
Phe Leu Gly His Ser Leu Leu Thr Val Ile Asn Ile Val Ser Tyr Val
        35                  40                  45
Met Gly Gly Ser Val Tyr Ile Pro Met Ala Lys Ala Leu Asp Leu Trp
    50                  55                  60
Gly Arg Ala Glu Gly Phe Leu Leu Met Thr Phe Phe Cys Ile Leu Gly
65                  70                  75                  80
Leu Ile Leu Leu Ala Ser Ser Gln Asn Leu Pro Thr Tyr Cys Ala Gly
                85                  90                  95
Gln Val Arg His Asp His Arg
            100
```

<210> 37575
<211> 335
<212> PRT
<213> A.fumigatus

<400> 37575

```
Val Ser Thr Lys Gly Gly Cys Arg Leu Lys Arg Val Pro Tyr Arg Arg
1               5                   10                  15
Leu Ile Asn Asp Leu Thr Thr His Leu Val Pro Gly Val Leu Leu Phe
            20                  25                  30
Ala Gly Gly Phe Val Ile Phe Leu Leu Pro Phe Thr Leu Ala Ala Thr
        35                  40                  45
Ala Pro His Gly Tyr Gln Thr Asp Tyr Ile Ile Ala Met Ile Thr Leu
    50                  55                  60
Gly Leu Ala Leu Ile Ile Ala Phe Gly Phe Tyr Glu Met Leu Val Ala
65                  70                  75                  80
Pro Val Pro Phe Leu Asn Tyr Lys Phe Leu Ile Asp Arg Thr Val Leu
                85                  90                  95
Gly Ala Cys Leu Leu Asp Met Thr Tyr Gln Val Ser Tyr Tyr Cys Tyr
            100                 105                 110
Ala Ser Tyr Leu Pro Ser Phe Leu Gln Val Val Tyr Glu Leu Asp Val
```

```
        115                 120                 125
Ala Thr Ala Gly Tyr Val Thr Asn Thr Phe Ser Val Val Ser Phe Val
    130                 135                 140
Phe Leu Phe Phe Ala Gly Trp Leu Ile Arg Trp Thr Gly Arg Phe Lys
145                 150                 155                 160
Trp Ile Leu Trp Val Cys Val Pro Leu Tyr Ile Phe Gly Leu Gly Leu
                165                 170                 175
Met Ile His Phe Arg Gln Pro Gly Gly Tyr Ile Gly Tyr Ile Val Met
            180                 185                 190
Cys Glu Ile Phe Phe Ser Val Ala Gly Ser Val Phe Ile Leu Cys Val
        195                 200                 205
Gln Leu Ala Val Leu Ala Ser Val Asp His Gln His Val Ala Ala Val
    210                 215                 220
Leu Ala Leu Leu Phe Val Met Gly Ser Ile Gly Gly Ser Ile Gly Ser
225                 230                 235                 240
Ala Ile Cys Gly Ala Ile Trp Thr Ser Thr Phe Leu Ser Arg Leu Glu
                245                 250                 255
Arg Asn Leu Pro Ala Ser Ala Met Pro Asp Leu Ser Leu Ile Tyr Ser
            260                 265                 270
Ser Leu Pro Thr Gln Leu Ser Tyr Pro Val Gly Ser Ala Thr Arg Thr
        275                 280                 285
Ala Ile Val Glu Ala Tyr Gly Tyr Ala Gln Ala Arg Met Leu Ile Ala
    290                 295                 300
Gly Thr Ala Phe Met Val Leu Gly Phe Ile Trp Val Gly Met Met Arg
305                 310                 315                 320
Asn Leu Asn Val Lys Asn Met Thr Gln Thr Lys Gly Asn Val Val
                325                 330                 335
```

<210> 37576
<211> 385
<212> PRT
<213> A.fumigatus

<400> 37576

```
Leu Ile Val Leu Asp Ser Gln Gly Asp Leu Val Val Ala Pro Ser Pro
1               5                   10                  15
Arg Val Glu Gln Thr Glu Ala Ala Ile Ala Lys Thr Leu Ile Thr Lys
            20                  25                  30
Arg Gln Lys Asn Val Ser Gln Ala Arg Tyr Pro Glu Arg Pro Gly Tyr
        35                  40                  45
Gly Thr Gln Gly Ser Pro Val Thr Leu Tyr Ala Asn Tyr Phe Glu Leu
    50                  55                  60
Lys Ser Val Gly Lys Glu Leu Phe Arg Tyr Asn Val Asp Ile Val Ala
65                  70                  75                  80
Asp Ser Ala Arg Ala Lys Pro Thr Gly Arg Lys Ala Arg Gln Ile Ile
                85                  90                  95
Arg Leu Leu Leu Asp Glu His Leu Leu Gln Tyr Gln Asn Ser Ile Ala
            100                 105                 110
Thr Asp Tyr Lys Ser Thr Leu Ala Ser Arg Val Glu Leu Pro Ser Gln
        115                 120                 125
Gly Gln Tyr Asp Val Arg Tyr Arg Asp Glu His Glu Asp Asp Tyr Pro
    130                 135                 140
Glu Gln Pro Lys Val Tyr Arg Val Asn Cys Gln Phe Thr Gly Arg Leu
145                 150                 155                 160
Asn Pro Gly Asp Leu Leu Asp Tyr Leu Thr Ser Ala Asn Ala Ser Ala
                165                 170                 175
```

```
Met Phe Glu Ser Lys Ala Glu Val Met His Ala Met Asn Ile Val Ile
            180                 185                 190
Gly His His Pro Lys Ala Asp Arg Ser Val Val Ser Val Gly Ala Asn
        195                 200                 205
Lys His Phe Ala Ile His Pro Asn Ala Ala Glu Arg Tyr Asp Leu Gly
    210                 215                 220
Ala Gly Leu Glu Val Leu Arg Gly Phe Phe Val Ser Val Arg Ala Ala
225                 230                 235                 240
Thr Ala Arg Ile Leu Ile Asn Val Gln Ile Lys Tyr Ala Ala Cys Tyr
                245                 250                 255
Gln Glu Gly Pro Leu Ala Asn Val Ile Asn Glu Tyr Gln Arg Ser Asn
            260                 265                 270
Ser Arg Asp Ile Tyr Lys Leu Glu Ala Phe Leu Lys Lys Leu Arg Ile
        275                 280                 285
Gln Ala Thr His Ile Val Arg Lys Asn Lys Lys Gly Gln Val Val Pro
    290                 295                 300
Arg Ile Lys Thr Ile Ala Gly Leu Ala Thr Arg Ala Asp Gly Ala Ser
305                 310                 315                 320
Leu Pro His Pro Pro Lys Val Ala Arg His Gly Ala Gly Pro Asn Asp
                325                 330                 335
Val Gln Phe Phe Leu Asp Ala Pro Gly Gln Lys Ser Glu Pro Gly Asn
            340                 345                 350
Ser Lys Gly Lys Lys Gly Lys Lys Pro Ala Lys Ala Gly Pro Ala Pro
        355                 360                 365
Ala Gly Arg Tyr Ile Thr Val Ser Asp Phe Phe Leu Gln Gly Lys Phe
    370                 375                 380
Pro
385
```

<210> 37577
<211> 166
<212> PRT
<213> A.fumigatus

<400> 37577

```
Ser Val Val Lys Trp Gly Glu Leu Glu Ile Ala Arg Lys Ser Pro Gln
1               5                   10                  15
Arg Leu Thr Gln Ser Ser Leu Asp His Ser Phe Ser Tyr Phe His Ser
            20                  25                  30
Leu Thr Tyr Ser Val Asn Leu Val Asn Phe Leu Ile Arg Leu Asn Ser
        35                  40                  45
Thr Met Ser Ser Arg Gly Ala Gly Asp Ser Gln Pro Arg Arg Gly Arg
    50                  55                  60
Gly Gly Asp Arg Gly Trp Ala Arg Gly Gly Asp Arg Gly Ala Ser Gly
65                  70                  75                  80
Arg Gly Gly Gly Arg Gly Gly Thr Met Glu Leu Pro Phe Arg Pro Ser
                85                  90                  95
Glu Pro Arg Gly Gly Ser Tyr Arg Gly Asp Ser Arg Gly Arg Gly Gly
            100                 105                 110
Gly Glu Phe Arg Gly Ser Gly Arg Gly Asp Ser Gly Gly Arg Gly Gly
        115                 120                 125
Arg Gly Gly Gly Phe Arg Gly Gly Arg Gly Asp Gln Gly Pro Arg Ile
    130                 135                 140
Phe Ser Tyr Val Ala Ile Asn Pro Phe Phe Val Phe Leu Thr Ala Tyr
145                 150                 155                 160
Trp Leu Ile Asp Cys Pro
```

165

<210> 37578
<211> 529
<212> PRT
<213> A.fumigatus

<400> 37578
Met Pro Thr Ile Val Glu Ile Glu Leu Ala Ser Glu Arg Gln Ser Arg
1 5 10 15
Glu Ala Leu Leu Pro Ala Glu Glu Ser His Leu Gly Tyr Pro Asp Leu
20 25 30
Pro Trp Pro Val Arg Val Leu Arg Leu Ile Glu Pro Thr Leu Pro Gln
35 40 45
Ser Val Ser Gly Ser Val Arg Asp Ala Ala Ser Pro Val Gly Asn Pro
50 55 60
Arg Asp Leu Pro Pro His Glu Glu Glu Glu Asp Val Lys Pro Ala Ala
65 70 75 80
Arg Gln Thr Thr Gly Ser Arg Val Ser Trp Gly Glu His Lys Thr His
85 90 95
Glu Tyr Glu Val Pro Ser Thr Ser Ser Glu Leu Glu Ser Val Asp His
100 105 110
Glu Thr Thr Arg Glu Arg Glu Gln Pro His Ser Pro Val Leu Gln Gln
115 120 125
Arg Tyr Val Ser Pro Lys Asn Ala Ala Asp Asp Val Gly Ala Asp Ile
130 135 140
Glu Phe Ala Ala Ala Leu Ala Ala Ala Thr Ala Ala Ala Gly Phe Asn
145 150 155 160
Pro Ala Leu Val Thr Glu Asp Pro Thr Tyr His Thr Trp Ser Ser Pro
165 170 175
Pro Gly Ser His Gly Arg Val Glu Tyr Arg Asp Pro Trp Val Glu Thr
180 185 190
Glu Ser Lys Ser Arg Ile Pro His Gly Phe Val Glu Gly Glu Val Glu
195 200 205
Thr Pro Glu Glu Glu Lys Ala Pro Ser Ser Arg Val Ile Glu Glu Gln
210 215 220
Pro Leu Tyr Ser Glu Pro Glu Pro Val Ser Arg Glu Pro Glu Ser Gln
225 230 235 240
Glu Ser Ser Glu Pro Gln Thr Arg Thr Ser Ile Ala Gln Glu Val Ile
245 250 255
Asp Arg Leu Ser Glu Lys Gln Asp Glu Arg Asp Gly Ser Arg Lys Ala
260 265 270
Leu Tyr Gly Thr Glu Lys Ser Ser Asn Ser Gly Lys Glu Arg Asp Glu
275 280 285
Ser Glu Leu Arg Ala Gln Asp Ser Phe Ser Met Pro Gly Gly Phe Glu
290 295 300
Thr Glu Glu Leu Arg Ser Asp Pro Lys Arg Asp Val Asp Ser Arg Asp
305 310 315 320
Asp Gly Asp Val Asp Arg Arg Ser Val Ala Ser Ala Pro Val Ser Gly
325 330 335
Glu Tyr Asp Phe Ser Thr Arg Pro Arg Lys Ser Thr Gln Asp Ser Glu
340 345 350
Tyr Phe Asp Asn Gly Glu Asp Ala Gly Ser Ala Ser Ile Glu Gln Asp
355 360 365
Gly Ser Glu Gly Lys Lys Lys Arg Arg Lys Arg Arg Ser Lys Arg Asp
370 375 380

```
Ser Asp Thr Phe Thr Asp Ser Ala Ser Val Glu Ser Ser Pro Ala Arg
385                 390                 395                 400
Ile Gly Gln Ser Ser Glu Lys Leu Lys Ser Met Asp Asp Lys Asp Lys
                405                 410                 415
Glu Lys Lys Ala Gly Gly Phe Phe Ser Ser Ile Phe Gly Ser Arg Val
            420                 425                 430
Ser Glu Pro Val Asp Ser Lys Arg Ser Ser Ser Thr Asp Arg Pro Ser
        435                 440                 445
Arg Asp Val His Ser Glu Ile Gly Arg Arg Glu Tyr Glu Glu Ser Arg
    450                 455                 460
Arg Gln Arg Lys Glu Glu Lys Ser Ser Arg Arg Asp Glu Glu Ser Gly
465                 470                 475                 480
Ser Asp Lys Glu Asn Ser Lys Val Arg Asp Lys Asp Asp Val Asp Ile
                485                 490                 495
Glu Asn Tyr Lys Ser Ser Arg Gln Arg Arg Glu Glu Arg Arg Arg Arg
            500                 505                 510
Arg Tyr Glu Asp Ile Val Asp Ser Gly Lys Ser Gly Glu Tyr Glu Lys
        515                 520                 525
Val
```

<210> 37579
<211> 557
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (552)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37579

```
Asp Arg Lys Leu Ser Glu Asp Asn Asp Glu Asn Gln Ser Phe Leu Ala
1               5                   10                  15
Glu Gly Pro Glu Met Pro Ala Gln Ile Gly Asp Gly Asp Arg Gly Ser
            20                  25                  30
Gly Ala Ser Gly His Val Arg Leu Ala Glu Gly Ala Ile Thr Gly Leu
        35                  40                  45
Gly Ile Gly Val Leu Gly Gln Arg Pro Arg Gly Arg Ser Thr Pro Pro
    50                  55                  60
Glu Ala Ser Glu Arg Ile Met Asp Pro Ala Pro Arg Ser Arg Ser Arg
65                  70                  75                  80
Pro Ala Ser Pro Glu Pro Asp Arg Gln Glu Gly Asp Asn Gln Ser Gln
                85                  90                  95
Ser Ser Arg Arg Ser Ser Ile Leu Arg Ser Lys Asp Ser Pro Thr Ala
            100                 105                 110
Val Pro Leu His Phe Arg Arg Pro Pro Ala Ser Pro Gly Thr Asn Arg
        115                 120                 125
Ser Val Ser Val Gly Thr Pro Thr Ala Pro Ser Pro Gly Ser Pro Thr
    130                 135                 140
Thr Pro Lys Arg Arg Pro Asn Ser Thr Glu Phe Lys Asn Ser Arg Glu
145                 150                 155                 160
Met Arg Pro Leu Trp Leu Val Glu Arg His Gly Pro Gly His Gly Glu
                165                 170                 175
His Glu Leu Glu Glu Pro Leu Pro Ser Leu Pro Ser Ser Lys Thr Ser
            180                 185                 190
```

```
Ser Ala Asn Thr Ser Val Glu Asp Leu Thr Ala Leu Gln Asp Glu Arg
        195                 200                 205
Ser Trp Glu Ala Val Asp Leu Ser His His Val His Gly Met Arg Arg
    210                 215                 220
Leu Ser Gly Ile Asp Val Ser Gln Ser Arg Gly Phe Glu His Asp Ala
225                 230                 235                 240
Phe Gly Ser Gln His Val Thr Pro Thr Ala Thr Thr Phe Glu Gln Ile
                245                 250                 255
His Pro His Ser Arg Lys Glu Lys Leu Lys Tyr Glu Phe His Ser Pro
            260                 265                 270
Ser Glu Leu Leu Gln Asp Pro Ser Pro Tyr Gly Asp Val Gln Pro Ser
        275                 280                 285
Asn Met Gly Asp Leu Pro Ser Ala Glu Gly Ser Ala Val Gly Val Lys
    290                 295                 300
Asp Ala Ser Ser Glu Asn Glu Asp Ser Ala Glu Leu Ala Ala Glu Ala
305                 310                 315                 320
Leu Pro Pro Arg Pro Ser Thr Pro Gln Asn Asn Val Thr Ala Ala Ser
                325                 330                 335
Glu Asp Thr Glu Thr Thr Pro Thr Gln Thr Arg Thr Val Asn Ala Phe
            340                 345                 350
Glu Gly Pro Gly Phe Ala Gly Val Val Asp Ala Ala Val Ala Ala Ala
        355                 360                 365
Val Ser Asn Arg Leu Ser Thr Arg Pro Asp Val Ala Ile Pro Asp Lys
    370                 375                 380
Ser Ser Pro Glu Asp Leu Pro Tyr Asp Ala Asp Arg Thr His Lys Pro
385                 390                 395                 400
Ile Ala Asp Gln Glu Leu Ala Ala Thr Ser Pro Pro Ala Pro Gly Val
                405                 410                 415
Pro Leu Gly Phe Ala Ala Val Val Asp Ala Ala Val Ala Ala Ala Thr
            420                 425                 430
Ile Ser Ile Gly Gly Gln Pro Glu Ala Ala Lys Glu Leu Glu Gln Ser
        435                 440                 445
Pro Glu Ile Ser Glu Pro Ile Pro Gln Thr Pro His Pro Asn Glu Gln
    450                 455                 460
Glu Thr Ser His Pro Thr Gly Asn Asp Ser Val Pro Arg Asp Asp Lys
465                 470                 475                 480
Arg Arg Asp Ser Val Asp Thr Val Val Pro Gln Ala Glu Glu Ala Ser
                485                 490                 495
Asp Glu Lys Glu Lys Leu Asp Thr Ser Ala Val Met Pro Asp Leu Thr
            500                 505                 510
Gly Glu Asn Lys Glu Leu Pro Ser Glu Ala Lys Asn Glu Asn Ala Asn
        515                 520                 525
Asp Asn Ser Gln Ala Gln Thr Glu Gln Pro Pro Val Asp Thr Asp Glu
    530                 535                 540
Pro Ser Ser Ser Ser Ala Lys Xaa Lys Lys Lys Lys Asn
545                 550                 555
```

<210> 37580
<211> 66
<212> PRT
<213> A.fumigatus

<400> 37580

```
Thr Arg Ile Pro Asp Gln Gln Ala His Gly Ile Glu Ser Leu Ser Pro
1               5                   10                  15
Val Thr Val Thr Tyr Gly Tyr Leu His Lys Gly Thr Glu Val Phe Ser
```

```
            20                  25                  30
Phe Tyr His Asn Ser His Asp Asp Gly Phe Phe Glu Asp Glu Arg Arg
        35                  40                  45
Ile Gly Lys Asn Ile Phe Val Tyr Tyr Glu Ile Leu Glu Ala Leu Glu
    50                  55                  60
Glu Ile
65
```

<210> 37581
<211> 213
<212> PRT
<213> A.fumigatus

<400> 37581

```
Ser Thr Val Arg Lys Pro Leu Asn Gly Leu Thr Ile Leu Gln Asp Val
1               5                   10                  15
Glu Tyr Tyr Pro Asn Gln Phe Tyr Lys Ser Asn Ser Met Gly Ile Pro
            20                  25                  30
Gln Trp Ser Glu Gln Asp Glu Cys Gln Ala Arg Met Gln Asp Ala Gly
        35                  40                  45
Leu Tyr Ile Asp Trp Pro Asn Pro Tyr Asn Leu Glu Pro Gly Leu Tyr
    50                  55                  60
Ile Ile Val His Thr Asp Tyr Ala Thr Arg Pro Gly Asp Ile Met Asp
65                  70                  75                  80
Val Ile Asp Asp Ala Tyr Ser Ala Val Thr Thr Arg Leu Lys Ser Gln
                85                  90                  95
Lys Phe Ser Asn Pro Arg Gln Pro Leu Pro Gly Arg Lys Arg Leu Phe
            100                 105                 110
Ile His Tyr Glu Leu Ile Asn Gln Asp Asp Gly Thr Thr Asn Ser Phe
        115                 120                 125
Pro Thr Glu Val Asp Leu Phe Glu Asp Val Gln Arg His Leu Met His
    130                 135                 140
Met Phe Asp Gln Leu Glu Phe Gly Ile Lys Phe Asp Phe Pro Tyr Lys
145                 150                 155                 160
Leu Gly Pro Val His Val Phe Trp Cys Asp Met Val Glu Trp Glu His
                165                 170                 175
Asp Leu Pro Thr Val Thr Val Glu Val Phe Glu Glu Thr Glu Ser Asp
            180                 185                 190
Ser Gln Asp Ala Val Ser Pro Thr Ile Thr Val Glu Met Tyr Glu Glu
        195                 200                 205
Val Asp Ser Asp Ser
    210
```

<210> 37582
<211> 72
<212> PRT
<213> A.fumigatus

<400> 37582

```
Lys Leu Ile Val Phe Ser Val Gly Ser Ser Arg Gln Leu Pro Arg Phe
1               5                   10                  15
Phe Phe Val Ala Gln Val Ser Lys Ser Tyr Asp Val Ser Asn Leu Gly
            20                  25                  30
Gln Ile Val Glu Ala Arg Ser Tyr Lys Lys Ala Phe Lys Ser Gln Lys
        35                  40                  45
Pro Phe Val Val Ala Cys Ser Lys Leu Val Phe Val His Cys Asp Phe
```

```
    50                  55                  60
Leu Thr Trp Pro Glu Tyr Leu Arg
65                  70
```

<210> 37583
<211> 84
<212> PRT
<213> A.fumigatus

<400> 37583

```
Ile Ser Ile Val Val Gln Asn Thr His Ile Ser Thr Met Glu Ser Ala
1               5                   10                  15
Asp Val Val Glu Ser Pro Arg Lys Arg Leu Lys Thr Glu Asp Thr Pro
            20                  25                  30
Val Ser Gly Asp Ala Val Leu His Pro Ser Thr Val Pro Gly Leu Glu
        35                  40                  45
Phe Ser Asp Gly Asp Ala Gln Thr Leu Lys Glu Ala Glu Val Gly Ile
    50                  55                  60
Thr Glu Phe Val Ser Ala Asp Asn Leu Gly Phe Ser Gly Ile Leu Lys
65                  70                  75                  80
Lys Arg Tyr Asn
```

<210> 37584
<211> 79
<212> PRT
<213> A.fumigatus

<400> 37584

```
Val Ile Ser Ser Gln Asn Thr Ala Pro Lys Ser Asn Leu Asn Ile Arg
1               5                   10                  15
Leu Met Ser Trp Leu Glu Lys Thr Cys Pro Gln Pro Arg His His Ala
            20                  25                  30
Tyr Lys Thr Asp Arg Arg Pro Glu Ala Arg Gln Glu Thr Phe Asp Arg
        35                  40                  45
Leu Ser Asp Ile Ala Val Ser Arg Leu Ala Gln Ala Ala Ile Met Tyr
    50                  55                  60
Asn Arg Thr Met Ile Asp Asp Phe Arg Arg Pro Val Val Leu Pro
65                  70                  75
```

<210> 37585
<211> 290
<212> PRT
<213> A.fumigatus

<400> 37585

```
Lys Asp Ala Cys Glu Gln Arg Ser Thr Gln Leu Gln Asn Cys Lys Thr
1               5                   10                  15
Lys Gln Lys Asp Ile Pro Phe His Asn Asp Asn Ser Lys Pro Ser Gly
            20                  25                  30
Pro Gln Thr Val Cys Ala Lys Cys Arg Phe Leu Tyr Arg Ser Asp Gly
        35                  40                  45
Tyr Phe Phe Gln Leu Ala Gln Cys Thr Asn Arg Lys Phe Ser Tyr Lys
    50                  55                  60
Arg Lys Ala Lys Glu Gly Ser Leu Leu Cys Ser Phe Arg Lys Leu Ile
65                  70                  75                  80
```

```
Val Ile Leu Arg Leu Pro Leu Arg Val Arg Val Tyr Leu Leu Ile His
                85                  90                  95
Phe Asn Cys Asp Cys Gly Gly Asp Ser Val Leu Arg Ile Arg Leu Arg
            100                 105                 110
Leu Leu Lys His Phe Asn Ser Asp Ser Gly Lys Val Met Leu Pro Leu
        115                 120                 125
Asp His Ile Thr Pro Lys His Met His Trp Thr Lys Phe Ile Arg Glu
    130                 135                 140
Ile Lys Leu Tyr Pro Glu Leu Gln Leu Ile Lys His Val His Glu Val
145                 150                 155                 160
Ser Leu Asn Ile Leu Lys Glu Val Tyr Leu Cys Arg Glu Gly Val Gly
                165                 170                 175
Gly Pro Ile Ile Leu Val Asp Gln Leu Ile Met Asp Glu Lys Ser Leu
            180                 185                 190
Ala Pro Trp Lys Trp Leu Pro Arg Ile Ala Glu Leu Leu Arg Phe Glu
        195                 200                 205
Ser Arg Cys Asp Gly Thr Ile Cys Val Val Asn Asn Ile His Asn Val
    210                 215                 220
Ala Gly Pro Gly Gly Ile Val Arg Val Asp Asp Asn Ile Glu Ala Arg
225                 230                 235                 240
Phe Glu Val Val Gly Val Trp Pro Val Asp Val Glu Thr Gly Ile Leu
                245                 250                 255
His Ala Arg Leu Thr Leu Val Leu Leu Gly Pro Leu Trp Asn Thr His
            260                 265                 270
Ala Val Arg Phe Val Lys Leu Val Trp Ile Ile Leu Asn Val Leu Lys
        275                 280                 285
Asn Gly
    290
```

<210> 37586
<211> 113
<212> PRT
<213> A.fumigatus

<400> 37586

```
Gly Arg Asn His Arg Ile Cys Gln Cys Arg Gln Pro Gly Leu Phe Arg
1               5                   10                  15
Asn Ser Glu Glu Glu Val Gln Leu Arg Pro Glu Ile Leu Gln Ile Lys
            20                  25                  30
Leu Thr Leu Phe Cys Leu Arg Tyr Thr Asp Phe Leu Val Asn Glu Ile
        35                  40                  45
Leu Pro Ser Gly Glu Val Leu His Leu Arg Asn Leu Asn Pro Pro Thr
    50                  55                  60
Ser Pro Thr Asp Gly Thr Lys Thr Asn Asp Ala Glu Ser Lys Ser Glu
65                  70                  75                  80
Ser Pro Ile Ala Asp Asn Thr Val Glu Pro Ala Ala Ser Gly Glu Lys
                85                  90                  95
Asp Ala Pro Ala Ala Lys Gln Val Thr Ala Ala Glu Phe Gln Leu Ser
            100                 105                 110
Glu
```

<210> 37587
<211> 478
<212> PRT
<213> A.fumigatus

<400> 37587

```
Thr Arg Phe Cys Gly Ser Tyr Lys Leu Glu Leu Gly Arg Tyr Pro Arg
1               5                  10                  15
Leu Ala Val Met Gly Gln Ser His Ser Lys Gly Asn Ser Gly Pro Gly
            20                  25                  30
Asp Ser Leu Gln Ser Tyr Pro Ser Phe Ser Arg Ser Asp Thr Lys Glu
        35                  40                  45
Ser Leu Arg Ser Leu Arg Gly Ser Ile Arg Ser Lys Ile Arg Ser Ser
    50                  55                  60
Asp Ser Pro Arg Gly Ser Thr Ala Gly Leu Ser Asp Asp Lys Ser Asp
65                  70                  75                  80
Ala Ala Ser Val Lys Ser Thr Thr Ser Arg Arg Ser Ser Thr Asn Gln
                85                  90                  95
Ser Val Leu Ser Pro Asp Asp Thr Pro Ser Gln Pro Asp Ala Pro Glu
            100                 105                 110
Pro Pro Pro Ser Pro Ser Leu Ser Ser Ser Leu Lys Arg Gly His Lys
        115                 120                 125
Asp Val Asn Ala Met Gln Gln Ser Gly Glu Val Asp His Val Ser Asp
    130                 135                 140
Val Pro Pro Thr Gly Ala Ala Pro Thr Gly Pro Ser Thr Gln Lys Val
145                 150                 155                 160
Gly Glu Ser Ile Leu Ile Lys Arg Glu Asn Gln Leu Asn Pro Ile Leu
                165                 170                 175
Asp Phe Ile Met Asn Ala Pro Leu Glu Thr Ser Gly Ser Pro Gly Met
            180                 185                 190
Gly Met Gly Ala Leu Lys Ser Ile Asp Leu Asp Asp Met Ile Ser Arg
        195                 200                 205
Leu Leu Asp Ala Gly Tyr Ser Thr Lys Val Thr Lys Thr Val Cys Leu
    210                 215                 220
Lys Asn Ala Glu Ile Met Ala Ile Cys Ser Ala Ala Arg Glu Leu Phe
225                 230                 235                 240
Leu Ser Gln Pro Ala Leu Leu Glu Leu Ser Ala Pro Val Lys Ile Val
                245                 250                 255
Gly Asp Val His Gly Gln Tyr Thr Asp Leu Ile Arg Leu Phe Glu Met
            260                 265                 270
Cys Gly Phe Pro Pro Ala Ser Asn Tyr Leu Phe Leu Gly Asp Tyr Val
        275                 280                 285
Asp Arg Gly Lys Gln Ser Leu Glu Thr Ile Leu Leu Leu Leu Cys Tyr
    290                 295                 300
Lys Leu Lys Tyr Pro Glu Asn Phe Phe Leu Leu Arg Gly Asn His Glu
305                 310                 315                 320
Cys Ala Asn Val Thr Arg Val Tyr Gly Phe Tyr Asp Glu Cys Lys Arg
                325                 330                 335
Arg Cys Asn Ile Lys Ile Trp Lys Thr Phe Ile Asp Thr Phe Asn Cys
            340                 345                 350
Leu Pro Ile Ala Ala Thr Val Ala Gly Lys Ile Phe Cys Val His Gly
        355                 360                 365
Gly Leu Ser Pro Ser Leu Ser His Met Asp Asp Ile Arg Gly Ile Ala
    370                 375                 380
Arg Pro Thr Asp Val Pro Asp Tyr Gly Leu Leu Asn Asp Leu Leu Trp
385                 390                 395                 400
Ser Asp Pro Ala Asp Met Glu Glu Asp Trp Glu Pro Asn Glu Arg Gly
                405                 410                 415
Val Ser Tyr Cys Phe Gly Lys Lys Val Ile Met Asn Phe Leu Gln Arg
            420                 425                 430
```

```
His Asp Phe Asp Leu Val Cys Arg Ala His Met Val Val Glu Asp Gly
        435                 440                 445
Tyr Glu Phe Tyr Gln Asp Arg Ile Leu Val Thr Val Phe Ser Ala Pro
    450                 455                 460
Asn Val Ser Thr Glu His Ser Phe Cys Met Ile Phe Phe Leu
465                 470                 475
```

<210> 37588
<211> 92
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (85)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37588

```
Tyr Cys Gly Glu Phe Asp Asn Trp Gly Ala Ile Met Ser Val Ser Gly
1               5                   10                  15
Glu Leu Leu Cys Ser Phe Glu Leu Leu Lys Pro Leu Asp Ser Thr Ala
            20                  25                  30
Leu Lys Asn His Ile Lys Lys Gly Arg Lys Glu Arg Asn Ser Met Leu
        35                  40                  45
Ser Lys Ser Val Arg Ser Pro Leu Leu Arg Phe Val Gly Ala Lys Glu
    50                  55                  60
Ile Thr Thr Phe Cys Ala Lys Ser Pro Arg Arg Leu Trp Ala Asn Ser
65                  70                  75                  80
Cys Leu Ser Gly Xaa Trp His Ile Arg Gly His Lys
                85                  90
```

<210> 37589
<211> 331
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (276)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37589

```
Ile Tyr Ser Ala Asp Ala Asn Leu Ile Val Ser Leu Leu Asp Ile His
1               5                   10                  15
Val Thr Pro Pro Ala Glu Gly Ser Gln Glu Gln Pro Pro Leu Glu Ile
            20                  25                  30
Leu Glu Ser Gly Thr Gly His Gly Ser Leu Thr Leu His Leu Ala Arg
        35                  40                  45
Ala Ile Gln Ala Ala Asn Ser Val Pro Pro Pro Leu Pro Pro Lys Ser
    50                  55                  60
Gln Ile Gln Tyr Leu Gln Gly Arg Pro Ile Arg Pro Gly Thr Asp Ala
65                  70                  75                  80
Glu Lys Ala Asp Pro Lys Ser Thr Ser Asn Thr Ile Gln Glu Ser Pro
                85                  90                  95
Asp Gly Phe Val Glu Gln Gln Thr Glu Gln Gln Gln Gln Gln Gln Gln
            100                 105                 110
```

```
Gln Gln Trp Asp Ala Trp Arg Ala His Arg Arg Ala Ile Ile His Thr
        115                 120                 125
Val Asp Val Ser Pro Lys Phe Ser Ala His Ala Glu Lys Ile Val Arg
    130                 135                 140
Gly Phe Arg Arg Gly Ile Tyr Ala Gly Asn Val Asp Phe Tyr Val Gly
145                 150                 155                 160
His Val Glu Asn Trp Ile Ala Glu Gln Lys Lys Val Arg Ala Ser Arg
                165                 170                 175
Ser Leu Leu Ser Ser Ser Pro Thr Val Glu Pro Phe Leu Ser Tyr Ala
            180                 185                 190
Ile Leu Asp Met Pro Ser Ala His Leu Arg Ile Pro His Val Ala Pro
        195                 200                 205
Ile Leu Lys Arg Asp Gly Ile Leu Val Val Phe Met Pro Ser Val Thr
    210                 215                 220
Gln Val Gly Asp Cys Val Asp Leu Ile Arg Arg Glu Lys Leu Pro Phe
225                 230                 235                 240
Ile Leu Glu Lys Val Val Glu Leu Gly Ser Gly Ile Ser Ser Gly Arg
                245                 250                 255
Val Trp Asp Val Pro Phe Ala Val Lys Lys Ser Arg Ala Asp Pro Ser
            260                 265                 270
Ser Trp Thr Xaa Ala Ala Asp Phe Ala Glu Thr Arg Gly Arg Leu Ser
        275                 280                 285
Asp Ala Gly Ile Lys Lys Tyr Leu Pro Leu Leu Lys Glu Leu Gln Gly
    290                 295                 300
Lys Met Ile Ala Cys Trp Ser Ala Gly Leu Lys Ser Gly Pro Gly Ser
305                 310                 315                 320
Trp Ala Glu Val Ser Ser Ala Cys Gly Glu Gly
                325                 330
```

<210> 37590
<211> 60
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37590

```
Val Gly Xaa Gln Gly Leu His Cys Asp Gly Glu Ser Val Leu Tyr Ser
1               5                   10                  15
Leu Trp Ser Arg Ile Glu Gly Ser Thr Leu Val Arg Leu Tyr Lys Ile
            20                  25                  30
Ser His Ser Leu Thr Asn Asp Ala Ile Val Phe Gln Asn Ser Ser Ser
        35                  40                  45
His Ile Gly Leu Leu Pro Ser Ser Lys Gly Leu Arg
    50                  55                  60
```

<210> 37591
<211> 125
<212> PRT
<213> A.fumigatus

<400> 37591

```
Leu Pro Val Cys Ala Val Ala Arg His Cys Ser Gln Arg Arg Arg Pro
```

```
1               5                   10                  15
Leu Thr Ser Ser Ile Val Tyr Ser Asp Ala Phe Arg Asp Met Leu Asp
            20                  25                  30
Ser Val Lys Thr Pro Phe Asp Lys Cys Ile Glu Ile Leu Gln Glu Asn
        35                  40                  45
Met Lys Leu Asp Pro His Phe Ile Glu Phe Tyr Tyr Trp Ala Glu Glu
    50                  55                  60
Asn Asn Val Pro Ile Val Val Leu Ser Ser Gly Met Lys Pro Ile Ile
65                  70                  75                  80
Ser Ala Leu Phe Glu Ser Leu Leu Gly His Lys Pro Arg Ser His Leu
                85                  90                  95
His Ile Val Ser Asn Asp Val Glu Ser Arg Asp Gly Lys Asp Ile Asn
            100                 105                 110
Thr Val Gly Gly Trp Lys Ile Lys Tyr His Asp Asp Arg
        115                 120                 125

<210> 37592
<211> 403
<212> PRT
<213> A.fumigatus

<400> 37592
Thr Val Gly Pro Phe Pro Leu Pro Thr Pro Arg His Arg Asp Trp Val
1               5                   10                  15
Val Leu Gly Ala Glu Pro Pro Ser Ser Leu Asp His Cys Asn Glu Gln
            20                  25                  30
Ser Gln Phe Pro Phe Lys Gln Lys Gln Trp Val Ile Leu Arg His Ser
        35                  40                  45
Ser His Met Thr Val Thr Phe Gln Leu Gly Asn Phe Leu Gly Ser Leu
    50                  55                  60
Gly Arg Glu Leu Ile Trp Asn Glu Leu Arg Phe His Asp Ser Asp Ile
65                  70                  75                  80
Ile Val Leu Gln Glu Ile Asp Gln Gly Ser Tyr Asn Glu Tyr Phe Arg
                85                  90                  95
Glu Gln Leu Ala Tyr Asn Asp Tyr Lys Gly Val Tyr Trp Pro Arg Gly
            100                 105                 110
Arg Ala Met Gly Met Gln Glu Glu Asp Ala Lys Cys Val Asp Gly Cys
        115                 120                 125
Ala Thr Phe Phe Lys Gly Ser Lys Phe Ile Leu Leu Asp Lys Gln Leu
    130                 135                 140
Ile Asn Phe Gly Gln Thr Ala Val Arg Arg Pro Asp Ala Lys Gly Gln
145                 150                 155                 160
Asp Asp Ile Tyr Asn Arg Leu Trp Gln Lys Asp His Ile Ala Val Val
                165                 170                 175
Val Phe Leu Glu Asn Arg Gln Thr Gly Ala Arg Phe Ile Val Val Asn
            180                 185                 190
Ala His Leu Tyr Trp Asp Pro Ala Phe Lys Asp Val Lys Leu Ile Gln
        195                 200                 205
Thr Ala Ile Leu Met Glu Glu Leu Thr Lys Leu Ser Glu Thr Tyr Ala
    210                 215                 220
Lys Trp Pro Pro Cys Thr Asp Lys Ala Ala Phe Arg Phe Ser Lys Glu
225                 230                 235                 240
Glu Gly Gln Ser Glu Thr Pro Pro Leu Glu Glu Pro Ala Pro Ser Met
                245                 250                 255
Gln Tyr Ala Ser Gly Asp Gln Ile Pro Leu Leu Met Cys Gly Asp Leu
            260                 265                 270
```

```
Asn Ser Ser Pro Gly Ser Ala Ala Tyr Asn Leu Ile Ala His Gly Arg
        275                 280                 285
Leu Asp Glu Glu His Pro Asp Leu Glu Lys Arg Leu Tyr Gly Asn Leu
    290                 295                 300
Ser Lys Val Gly Met Thr His Pro Phe Lys Leu Lys Ser Ala Tyr Gly
305                 310                 315                 320
Ala Ile Gly Glu Leu Pro Phe Thr Asn Tyr Thr Pro Asp Phe Lys Asp
                325                 330                 335
Ile Leu Asp Tyr Ile Trp Tyr Ser Ser Asn Ser Leu His Val Ser Ala
            340                 345                 350
Leu Leu Gly Glu Val Asp Lys Asp Tyr Leu Gln Arg Val Pro Gly Phe
        355                 360                 365
Pro Asn Tyr His Phe Pro Ser Asp His Ile Ala Leu Leu Ala Glu Phe
    370                 375                 380
Thr Val Lys Gly Lys Lys Gly Lys Val Val Glu Ala Asp Phe Gly Pro
385                 390                 395                 400
Gln Arg Asn
```

<210> 37593
<211> 299
<212> PRT
<213> A.fumigatus

<400> 37593

```
Ser Pro Thr Gly Glu Gln Val Gly Gln Arg Arg Gln Pro Pro Ala Ser
1                   5                   10                  15
Pro Gln Phe Gly His Ala Ser Ser Thr Trp Thr Gly Leu Leu Ile Asn
            20                  25                  30
Ser Glu Asp Lys Ile Thr Gln Ser Thr Asn Arg Leu Leu Glu Lys Tyr
        35                  40                  45
Gly Arg Pro Val Phe Thr Pro Ser Ile Arg Ala Ser Leu Met Gly Val
    50                  55                  60
Pro Asp Ser Thr Asn Ser Asp Leu Phe His Asn Trp Ala Lys Leu Pro
65                  70                  75                  80
Ile Ser Arg Glu Gln Phe Ala Arg Glu Leu Arg Glu Glu Val His Arg
                85                  90                  95
Gln Phe Gln Thr Cys Thr Pro Leu Pro Gly Ala Glu Lys Leu Leu Ser
            100                 105                 110
Asn Leu Asn Ser Ala Arg Ser Thr Cys Ser Gly Glu Arg Ile Glu Leu
        115                 120                 125
Ala Leu Ala Ser Ser Thr Lys Thr His Thr Phe Asp Leu Lys Met Ser
    130                 135                 140
Arg Pro Glu Thr Lys Lys Leu Leu Asn Ile Ile Pro Ser Glu Arg Arg
145                 150                 155                 160
Val Leu Gly Asp Asp Pro Arg Val Gly Gln Gly Arg Gly Lys Pro Ala
                165                 170                 175
Pro Asp Ile Tyr Leu Val Leu Trp Gln Ala Leu Asn Ser Thr Ala Asp
            180                 185                 190
Ser Gly Lys Pro Ile Leu Pro Ser Glu Cys Leu Val Phe Glu Asp Ser
        195                 200                 205
Val Ala Gly Val Glu Ala Gly Arg Thr Ala Gly Met Arg Val Ile Trp
    210                 215                 220
Val Pro His Pro Asp Leu Ala Val Glu Tyr Glu Lys Arg Gln Arg Glu
225                 230                 235                 240
Val Leu Ala Gly Arg Thr Gly Met Ile Glu Ile Gly Asp Glu Trp Gln
```

```
                245                 250                 255
Ile Gly Glu Ile Asp Asp Gly Trp Asp Glu Ser Ile Pro Ser Met Asp
            260                 265                 270
Phe Phe Asp Asp Glu Lys Tyr Gly Ile Gly Cys Thr Ile Val Val Glu
        275                 280                 285
Leu Leu Ser Glu Ile Trp Ser Arg Ala Lys Glu
    290                 295
```

<210> 37594
<211> 96
<212> PRT
<213> A.fumigatus

<400> 37594

```
Val His Arg Thr Phe Ser Arg Ile Ala Leu Tyr Pro Leu Leu Ile Ser
1               5                   10                  15
Ile Asn Ser Ser Gln Pro Cys Ser Lys Tyr Ala Gln Phe Met Gly Asn
            20                  25                  30
Pro Gly Val Ser Ser Gln Leu Ser Phe Thr Tyr Ser Ser Pro Asn Thr
        35                  40                  45
Ile Asn Pro Leu Val Ser Arg Ser Asn His Val Val Val Val Val Leu
    50                  55                  60
Ser Leu Lys Glu His Tyr Asp Leu Trp Val Thr Tyr Ala Gln Ser Lys
65                  70                  75                  80
Thr Ala Asn Ile Tyr Met Pro Asn Glu Phe Thr His Trp Phe Glu Trp
                85                  90                  95
```

<210> 37595
<211> 708
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (270)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37595

```
Ile Ile Leu Arg Ala Arg Gln Gln His Leu Phe Asn Glu Phe Val Ser
1               5                   10                  15
Ala His Pro Thr Ile Thr Ala Glu Val Leu Asp Ile Ala Arg Asn Ala
            20                  25                  30
Tyr Thr Ala Tyr Leu Lys Lys Asn Leu Pro Leu Leu Asn Pro Glu Leu
        35                  40                  45
Pro Pro Ala Gln Tyr Gln Glu Glu Val Glu Lys Val Tyr Ala Thr Val
    50                  55                  60
Leu Asn Gly Gly Pro Leu Pro Gly Asn Glu Lys Ala Gly Asp Asp Glu
65                  70                  75                  80
Ala Lys Val Lys Met His Ile Lys Thr Val Ala Ser Ala Ala Lys Val
                85                  90                  95
Ile Ala His Ala Glu Ser Leu Asp Gln Ala Ala Thr Pro Lys Gly Phe
            100                 105                 110
Ala Glu Ser Phe Tyr Ser Asn Ala Gln Asp Leu Leu Leu Pro Tyr Leu
        115                 120                 125
Asp Ser Leu Lys Ala Ser Ser Ile Asn Ala Asp Asp His Ser Ile Phe
    130                 135                 140
```

```
Thr Lys Leu Thr Met Lys Tyr Glu Glu Arg Phe Met Lys Asp Met Arg
145                 150                 155                 160
Asp Leu Phe Val Leu Asp Pro Asp Glu Leu Thr Arg Val Thr Glu Tyr
                165                 170                 175
Gly Ala Glu Ile Ala Asp Phe Val Glu Lys Ile Val Glu Asn Lys Phe
            180                 185                 190
Gly Tyr Val Thr Asp Asp Gly Ser Val Tyr Phe Asp Ile Thr Ala Phe
        195                 200                 205
Glu Asn Ala Gly His Pro Tyr Ala Arg Leu Glu Pro Trp Ser Arg Ser
    210                 215                 220
Asp Asn Lys Leu Val Ala Glu Gly Glu Gly Ala Leu Thr Lys Lys Thr
225                 230                 235                 240
Thr Glu Lys Arg Ser Ala Ser Asp Phe Ala Leu Trp Lys Ala Ser Lys
                245                 250                 255
Pro Gly Glu Pro Ser Trp Thr Ser Ser Trp Gly Arg Gly Xaa Pro Gly
            260                 265                 270
Trp His Ile Glu Cys Ser Ala Met Ala Ser Ala Lys Leu Gly Lys Gln
        275                 280                 285
Met Asp Ile His Ser Gly Gly Val Asp Leu Ala Phe Pro His His Asp
    290                 295                 300
Asn Glu Leu Ala Gln Ser Glu Ala Tyr Trp Ser His Gly His Pro His
305                 310                 315                 320
Thr Asp Gln Trp Val Asn Tyr Phe Leu His Met Gly His Leu Ser Ile
                325                 330                 335
Gln Gly Ser Lys Met Ser Lys Ser Leu Lys Asn Phe Thr Thr Ile Arg
            340                 345                 350
Glu Ala Leu Glu Arg Lys Glu Trp Thr Pro Arg Ser Leu Arg Ile Val
        355                 360                 365
Phe Leu Leu Gly Gly Trp Arg Asp Gly Val Glu Ile Thr Glu Glu Leu
    370                 375                 380
Val Ser Ala Gly Asn Ser Trp Glu Asp Lys Val Asn Asn Phe Phe Ile
385                 390                 395                 400
Lys Met Lys Asp Pro Ala Thr Leu Ser Gly Gln Thr Ser Gly Ser Asp
                405                 410                 415
Thr Thr Leu Pro Ala Ala Leu Glu Ala Ala Lys Lys Ala Thr Phe Asp
            420                 425                 430
His Leu Cys Asp Ser Phe Asn Thr Gln Gly Ala Met Ser Ala Ile Ser
        435                 440                 445
Glu Leu Ile Ser Lys Tyr Asn Ser Ala Asp Lys Ser Thr Leu Asn Pro
    450                 455                 460
Arg Asp Val Glu Ala Val Ala Arg Trp Val Thr Ser Met Val Asn Ile
465                 470                 475                 480
Phe Gly Leu Asn Gly Ser Ala Thr Ala Asp Ser Thr Glu Ile Gly Trp
                485                 490                 495
Ser Gly Ile Asp Val Pro Glu Glu Ala Lys Pro Phe Leu Tyr Pro Leu
            500                 505                 510
Ser Ser Met Arg Asp Ser Leu Arg Gln Ala Ala Arg Ala Lys Glu Gly
        515                 520                 525
Val Thr Pro Glu Thr Val Ala Glu Ile Val Ser Lys Gly Asp Val Pro
    530                 535                 540
Glu Leu Asp Leu Thr Glu Ser Ala Lys Pro Tyr Ala Glu Leu Leu Ser
545                 550                 555                 560
Asn Phe Arg Thr Lys Val Ser Ser Ile Gln Pro Ser Glu Ser Leu Gly
                565                 570                 575
Lys Glu Ile Leu Ala Leu Cys Asp Arg Val Arg Asp Ile Asp Leu Phe
            580                 585                 590
```

```
Asp Leu Gly Ile Tyr Leu Glu Asp Arg Glu Asn Leu Pro Ala Leu Val
        595                 600                 605
Arg Pro Val Thr Arg Glu Leu Ile Gln Ala Arg Glu Glu Lys Ala Ala
    610                 615                 620
Arg Ala Arg Gln Lys Gln Ile Glu Lys Glu Asn Lys Glu Lys Glu Ala
625                 630                 635                 640
Leu Lys Lys Leu Glu Lys Gly Lys Leu Ser His Leu Glu Met Phe Arg
                645                 650                 655
Thr Asn Glu Tyr Ser Ala Trp Asp Glu Asp Gly Ile Pro Thr Arg Asp
            660                 665                 670
Ala Ala Gly Glu Glu Ile Thr Lys Ser Arg Ala Lys Lys Leu Arg Lys
        675                 680                 685
Asp Trp Glu Arg Gln Lys Lys Leu His Glu Thr Trp Leu Ala Ser Gln
    690                 695                 700
Met Gly Ala Lys
705

<210> 37596
<211> 252
<212> PRT
<213> A.fumigatus

<400> 37596
Gln Arg Arg Trp Ser Gly Asn Cys Met Ser Arg Thr His Leu Arg Gln
1               5                   10                  15
Pro Ser Leu Lys Glu Lys Thr Ile Ala Asn Thr Pro Lys Leu Thr Ala
            20                  25                  30
Leu Thr Gln Pro Thr Pro Glu Asp Leu Arg Lys Glu Ile Arg Arg Cys
        35                  40                  45
Arg Thr Met Thr Lys Lys Pro Phe Gly Val Asn Leu Thr Leu Leu Pro
    50                  55                  60
Ala Leu Val Pro Pro Asp Tyr Ala Ala Tyr Ala Gln Val Ile Ile Asp
65                  70                  75                  80
Glu Gly Val Lys Ile Val Glu Thr Ala Gly Asn Asn Pro Gly Pro Val
                85                  90                  95
Ile Thr Gln Leu Lys Lys Ala Asn Thr Ile Ile Leu His Lys Cys Thr
            100                 105                 110
Thr Ile Arg His Ala Lys Ser Ala Val Lys Leu Gly Val Asp Phe Leu
        115                 120                 125
Ser Ile Asp Gly Phe Glu Cys Ala Gly His Val Gly Glu His Asp Ile
    130                 135                 140
Thr Asn Phe Ile Phe Leu Ser Arg Ala Arg Gln Glu Leu Asn Val Pro
145                 150                 155                 160
Phe Ile Ala Ser Gly Gly Phe Ala Asp Gly Gln Gly Leu Ala Ala Ala
                165                 170                 175
Leu Ala Leu Gly Ala Glu Gly Ile Asn Met Gly Thr Arg Phe Met Cys
            180                 185                 190
Thr Val Glu Ala Pro Ile His Gln Lys Val Lys Glu Ala Ile Val Ala
        195                 200                 205
Ser Asp Glu Asn Asn Thr Asn Leu Val Met Arg Arg Trp Lys Asn Thr
    210                 215                 220
Ser Arg Leu Phe Lys Asn Lys Val Ser Glu Glu Ala Pro Lys Ile Val
225                 230                 235                 240
Leu Leu Pro Gln Ala Ser Lys Asp Ser Arg Ile Gly
                245                 250
```

<210> 37597
<211> 60
<212> PRT
<213> A.fumigatus

<400> 37597
Arg Gly Asn Trp Ala Leu Pro Val Ser Cys Met Asp Leu Glu Leu Val
1 5 10 15
Glu Gly Thr Pro Val Ala Asp Gly Ser Thr Val Pro Val Val Gln Gly
20 25 30
Gly Met Gln Trp Val Gly Tyr Ala Glu Leu Ala Ala Ala Val Ser Asn
35 40 45
Ala Gly Gly Leu Gly Ile Val Cys Leu Gly Arg Thr
50 55 60

<210> 37598
<211> 188
<212> PRT
<213> A.fumigatus

<400> 37598
Tyr Gly Val Thr Cys Gln Thr Leu Gly Arg Tyr Cys Ser Thr Leu Pro
1 5 10 15
Leu Arg Phe Arg Trp Ser Tyr Gln Ile Pro Val Ser Leu Phe Phe Pro
20 25 30
Leu Phe Leu Met Pro Ile Ser Phe Ser Arg Thr Ser Leu Leu Val Ser
35 40 45
Ser Phe Ala Asn Pro Ser Lys Ala Arg Leu Ser Phe Phe Ser Pro Leu
50 55 60
Leu Ile Phe Ser Arg Ser Met Ala Thr Ala Arg Gln Gln Pro Pro Trp
65 70 75 80
Arg Gln Pro Thr Glu Tyr Pro Glu Ala Lys Ala Arg Leu Pro Pro Leu
85 90 95
Lys Ile Trp Asn Ser Leu Thr Arg Ser Lys Asn Pro Phe Ile Pro Ile
100 105 110
Asp Pro Glu Gly Lys Lys Val Thr Trp Tyr Ala Cys Gly Pro Thr Val
115 120 125
Tyr Asp Asp Ala His Leu Gly His Ala Arg Asn Tyr Val Ser Thr Asp
130 135 140
Ile Ile Arg Arg Ile Met Arg Asp Tyr Phe His Phe Asp Val Lys Phe
145 150 155 160
Ile Met Asn Ile Thr Asp Val Asp Asp Lys Val Cys Lys Ala Leu His
165 170 175
Val Pro Leu Val Ser Leu Ala Thr Val Leu Met Gln
180 185

<210> 37599
<211> 169
<212> PRT
<213> A.fumigatus

<400> 37599
Leu His Gly Gly Leu Gly Val Ala Asp Gly Arg Ala Leu Val Gln Asp
1 5 10 15
Asp Arg Val Gly Leu Leu Gln Leu Arg Asp His Gly Ala Gly Val Ile
20 25 30

```
Ala Arg Cys Leu Asp Asp Leu Asp Ala Leu Val Asp Asp Tyr Leu Cys
        35                  40                  45
Val Gly Ser Val Val Trp Gly His Glu Gly Arg Glu Glu Arg Gln Ile
    50                  55                  60
His Ala Glu Trp Leu Leu Gly His Gly Ser Ala Ser Ala Asn Leu Leu
65                  70                  75                  80
Ala Lys Val Phe Gly Gly Gly Leu Arg Glu Cys Ser Glu Leu Gly Cys
                85                  90                  95
Ile Ser Asp Gly Leu Phe Phe Gln Thr Arg Leu Ser Gln Val Arg Pro
            100                 105                 110
Arg His Thr Ile Pro Arg Pro Pro Ala Leu Leu Thr Ala Ala Ala Ser
        115                 120                 125
Ser Ala Tyr Pro Thr His Cys Ile Pro Pro Cys Thr Thr Gly Thr Val
    130                 135                 140
Asp Pro Ser Ala Thr Gly Val Pro Ser Thr Asn Ser Lys Ser Met Gln
145                 150                 155                 160
Leu Thr Gly Asn Ala Gln Phe Pro Arg
                165
```

<210> 37600
<211> 97
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (43)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37600

```
Ala Ser Leu Cys Ala Ser Ser Leu Ser Trp Trp Gly Asn Ala Arg Ser
1               5                   10                  15
Thr Pro Pro Glu Trp Ile Ser Ile Cys Leu Pro Ser Leu Ala Glu Ala
            20                  25                  30
Ile Ala Glu His Ser Met Cys Gln Pro Gly Xaa Pro Arg Pro Gln Glu
        35                  40                  45
Leu Val Gln Leu Gly Ser Pro Gly Phe Asp Ala Phe Gln Arg Ala Lys
    50                  55                  60
Ser Glu Ala Glu Arg Phe Ser Val Val Phe Leu Val Asn Ala Pro Ser
65                  70                  75                  80
Pro Ser Ala Thr Ser Leu Leu Ser Asp Arg Leu Gln Gly Ser Ser Arg
                85                  90                  95
Ala
```

<210> 37601
<211> 283
<212> PRT
<213> A.fumigatus

<400> 37601

```
Asn Asn Ser Pro Tyr Gln Arg Pro Gln Val Ile Ala Ser Phe Ser Arg
1               5                   10                  15
Pro Val Pro Ser Asn Pro Pro Val Val Cys Ala Ser Gln Thr Pro Tyr
            20                  25                  30
Leu Ile Asp Val Glu Gly Asn Glu Ser Thr Ala Ser Phe Pro Ala Met
```

```
        35                  40                  45
Arg Asn Gln Ile Arg Glu Ile Ile Thr Ser Ser Thr Val Ser Leu Ala
    50                  55                  60
Thr Ala Leu Phe Leu Ala Ser Asp Gly Asp Arg Tyr Ile Asn Val Phe
65                  70                  75                  80
Asp Val Glu Gly Arg Lys Leu Val Leu Asn Leu Val Ala Asp Thr Glu
                85                  90                  95
Val Ser Ser Leu Ala Leu Thr Ser Gly Thr Gly Gln Lys Thr Asp Asp
            100                 105                 110
Ala Leu Ala Ile Glu Lys Gln Ile Leu Ala Ala Val Thr Glu Asp Gly
        115                 120                 125
Thr Ile Glu Leu Phe Thr Arg Pro Phe Val Pro Pro Lys Asp Gln Asn
    130                 135                 140
Ser Lys Thr Ser Leu Lys Ala Arg Gly Arg Gln Leu Thr Arg Arg Ala
145                 150                 155                 160
Glu Ser Ser Ile Lys Ile Thr Gln Ser Glu Thr Ser Asp Ala Ser Val
                165                 170                 175
Pro Val Val Ala Ala Thr Phe Gln Gly Thr Asp Ile Leu Val Val Trp
            180                 185                 190
Ala Glu Gly Gly Ile Ile Pro Val Phe Glu Arg Ile Asn Cys Ile Asp
        195                 200                 205
Ile Asp Thr Glu Glu Leu Ala Phe Thr Gly Leu Lys Lys Ile Val Lys
    210                 215                 220
Thr Arg Ser Ser Ser Val Leu Ala Ser Val Thr Thr Asn Gly Val Arg
225                 230                 235                 240
Ala Ala Asp Glu Thr Gln Val Asp Glu Ser Arg Ala Val Val Glu Gln
                245                 250                 255
Gly Asp Leu Leu Glu Asp Asp Val Glu Met Gln Asp Thr Arg Ala Asp
            260                 265                 270
Ile Phe Thr Thr Gly Leu Glu Gly His Ala Leu
        275                 280

<210> 37602
<211> 168
<212> PRT
<213> A.fumigatus

<400> 37602
Gly Arg Glu Asp Val Tyr Lys Thr Arg Gly Arg Cys Cys Glu Leu Ser
1               5                   10                  15
Val Cys Arg Ile Ser Ile Lys His Gln Ile Asn Ile Arg Leu Asn Gln
            20                  25                  30
Phe Val Ile Leu Ser Val Ala Tyr His Glu Ile Trp Lys Arg Ser Tyr
        35                  40                  45
Asn Tyr His Ile Thr Leu Ser Ile His Thr Leu Gly Gly His Tyr Lys
    50                  55                  60
Ala Ile Pro Pro Leu Ser Thr Thr Lys Gln Asn Lys Ser Asn Thr Arg
65                  70                  75                  80
Asn Thr Lys Ser Ser Lys Asp His Asn Arg Val Asn Met Ser Ser Lys
                85                  90                  95
Ser Phe Lys Ser Thr Thr Thr Leu Asp Asn Ala Ser Thr Arg Thr Thr
            100                 105                 110
Ser Ser Thr Ala Ser Thr Leu Lys Gly Met Phe Thr Lys Ser Trp Lys
        115                 120                 125
Leu Lys Ala Pro Glu Lys Ala Pro Ser Ser Pro Lys Pro Ser Ser Lys
    130                 135                 140
```

```
Lys Ala Pro Ala Lys Asp Tyr Thr Gly Glu Ala Val His His Glu Ala
145                 150                 155                 160
Val Ala Gln Tyr Leu Ala Leu Arg
                165
```

<210> 37603
<211> 707
<212> PRT
<213> A.fumigatus

<400> 37603

```
Ala Asp Ile Gly Ser Leu Gln Asp Glu Leu Ala Leu Leu Ile Ser Pro
1               5                  10                  15
Leu Tyr Ala Pro Tyr Pro Ser Lys Asp Ser Asp Ser Val Cys Ser Ser
            20                  25                  30
His Val Pro Ser Pro Ser Phe Pro Ala Ser Thr Gly Ser Glu Asn Arg
        35                  40                  45
Met Arg Pro Ser Phe Val Leu Arg Ala Ser Leu Met Gly Leu Ala Ser
    50                  55                  60
Ala Val Thr Glu Ser Tyr Asn Gly Gln Tyr Val Asp Asp Cys Pro Arg
65                  70                  75                  80
Leu Cys Ala Asp Ala Gly Pro Ser Pro Ala Asn Trp Thr His Leu His
                85                  90                  95
His Leu Arg Asn Leu Glu Arg Cys Asp Gln Thr Val Leu Phe Gly Met
            100                 105                 110
Asn Val His Ser Ser Val Ala Asp Pro Asn Thr Ile Leu Thr Ile Arg
        115                 120                 125
Ala Cys Val Ala Ser Gln Gly Gln Thr Tyr Glu Pro Ala Ala Pro Pro
    130                 135                 140
Asp Val Pro Gln Gln Gln Arg Pro Arg Asn Leu Ala Val Ala Glu Asn
145                 150                 155                 160
Cys Gly Ala Lys Ala Ile Gln Thr Ala Phe Thr Pro His Val Gly Pro
                165                 170                 175
Ser Thr Leu Leu Lys Ala Ser Gly Ala Ala Pro Gln Ser Ala Asp Val
            180                 185                 190
Ala Glu Ala Ala Arg Gln Leu Ala Leu Phe Val Gly Gln Ser Ala Glu
        195                 200                 205
Cys Gly Ala Thr Ile Leu Phe Ala Lys His Lys Ser Ala Val Val Gly
    210                 215                 220
Leu Tyr Ser Gly Ala Gln Ile Thr Lys His Ala Ala Gln Gly Val Leu
225                 230                 235                 240
Asp Ser Tyr Ala Gly Lys Gln Thr Ser Val Leu Gln Ile Cys His Pro
                245                 250                 255
Ala Ser Ala Ala Leu Thr Val Gly Val Val Ser Thr Gly Phe Val Asp
            260                 265                 270
Leu Ala Ala Ala Gln Asp Gly Val Lys Ser Trp Ser Asn Gly Leu Cys
        275                 280                 285
Leu Asp Arg Thr Thr Pro Ala Thr Ala Val Ser Met Asp Val Leu Val
    290                 295                 300
Pro Thr Met Asp Thr Gly Phe Asn Ala Thr Arg Ala Gly His Gly Asn
305                 310                 315                 320
Leu Thr Ala Ser Ser Arg Ala Gly Thr Met Leu Asp Val Arg Pro Gln
                325                 330                 335
Pro Gln Pro Asp Gly Thr Cys Asn Thr Tyr Thr Val Lys Asp Asp Asp
            340                 345                 350
Gly Cys Trp Ala Leu Ala Gln Ala Tyr His Leu Gln Glu Lys Asp Ile
```

```
        355                 360                 365
Glu Asp Phe Asn Lys Asn Thr Trp Gly Trp Ala Gly Cys Gly Asn Leu
    370                 375                 380
Gln Ser Gly Gln Leu Ile Cys Leu Ser Lys Gly Asn Pro Pro Met Pro
385                 390                 395                 400
Ala Pro Ile Pro Asp Ala Ile Cys Gly Pro Gln Val Pro Gly Thr Gln
                405                 410                 415
Arg Pro Ser Asn Gly Thr Ala Leu Ala Asp Leu Asn Pro Cys Pro Leu
            420                 425                 430
Asn Ala Cys Cys Asp Val Trp Gly Phe Cys Gly Thr Thr Ala Asp Phe
        435                 440                 445
Cys Thr Glu Thr Pro Ala Asp Thr Gly Ala Pro Gly Thr Ala Lys Pro
    450                 455                 460
Asp Thr Asn Gly Cys Ile Ser Asn Cys Gly Met Glu Ile Val Asn Asn
465                 470                 475                 480
Gly Asn Ala Pro Ala Gln Val Lys Thr Ile Gly Tyr Phe Glu Ala Phe
                485                 490                 495
Asp Gln Leu Arg Ala Cys Leu Arg Met Ser Val Asp Glu Ile Pro Ala
            500                 505                 510
Gln Lys Tyr Ser His Val His Phe Ala Phe Ala Thr Val Thr Pro Gly
        515                 520                 525
Phe Asp Val Asp Thr Ser Ser Val Glu Asp Glu Phe Arg Arg Phe Val
    530                 535                 540
Lys Arg Thr Gly Phe Lys Lys Ile Leu Ser Phe Gly Gly Trp Ala Phe
545                 550                 555                 560
Ser Thr Asp Pro Ser Thr Phe Gln Arg Phe Arg Asp Ala Thr Lys Pro
                565                 570                 575
Glu His Arg Asp Thr Phe Val Thr Asn Leu Val Ser Phe Met Ser Arg
            580                 585                 590
His Asn Leu Asp Gly Phe Asp Phe Asp Trp Glu Tyr Pro Gly Ala Pro
        595                 600                 605
Asp Ile Pro Asp Ile Thr Pro Gly Ser Pro Asp Glu Gly Gln Asn Tyr
    610                 615                 620
Leu Ala Phe Leu Gln Arg Leu Arg Arg Lys Leu Pro Ser Gly Lys Ser
625                 630                 635                 640
Leu Ser Ile Ala Leu Pro Ala Ser Tyr Trp Tyr Leu Lys Gln Tyr Pro
                645                 650                 655
Val Lys Gln Met Ala Lys Tyr Val Asp Tyr Phe Ile Tyr Met Thr Tyr
            660                 665                 670
Asp Leu His Gly Gln Trp Gly Lys Glu Thr His Ser Pro Val Tyr Leu
        675                 680                 685
Ser Thr Cys Leu Pro Val Tyr Leu Ser Thr Cys Leu Asn Leu His Asn
    690                 695                 700
Asp Leu Cys
705

<210> 37604
<211> 159
<212> PRT
<213> A.fumigatus

<400> 37604
Ser Cys Phe Val Thr Leu Asn Ala Asp Val Asp Asn Gln Trp Ala Ile
1               5                   10                  15
Pro Gly Cys Pro Ala Gly Asn Cys Leu Arg Ser His Val Asn Lys Thr
            20                  25                  30
```

```
Glu Thr His Asp Ala Leu Val Met Ile Thr Lys Ala Gly Val Glu Ala
        35                  40                  45
Arg Gln Leu Val Val Gly Val Thr Ser Tyr Gly Arg Ser Phe Arg Met
    50                  55                  60
Asn Asp Ala Ser Cys Ser Gly Pro Phe Cys Thr Tyr Ala Gly Asp Arg
65                  70                  75                  80
Thr His Ser Met Ala Ser Ala Ala Pro Cys Thr Ala Thr Gly Gly Tyr
                85                  90                  95
Ile Ala Asn Ala Glu Ile His Asp Ile Leu Gln Asn His Gly Asn Tyr
            100                 105                 110
Ser Ile Val Lys Ala Tyr Val Asp Lys Glu Ser Asp Ser Asn Ile Leu
        115                 120                 125
Trp Thr Glu Ile Pro Glu Arg Trp Ile Gly Trp Pro Lys Trp Thr Gly
    130                 135                 140
Ala Val Lys Ala Arg Pro Phe Asp Trp Ile Lys Asn Leu Tyr Phe
145                 150                 155
```

<210> 37605
<211> 148
<212> PRT
<213> A.fumigatus

<400> 37605

```
Thr Ser Ile Ala Leu Ser Pro Ile Gln Thr Pro Ser Ser Pro Ser Ala
1               5                   10                  15
Pro Ala Trp Pro Ala Arg Ala Arg Arg Thr Ser Leu Pro Arg Pro Pro
            20                  25                  30
Met Cys Leu Ser Ser Asn Ala His Ala Thr Ser Leu Ser Leu Lys Thr
        35                  40                  45
Ala Ala Pro Arg Gln Ser Arg Gln Leu Ser Leu Pro Met Leu Ala Leu
    50                  55                  60
Arg Arg Phe Ser Lys Arg Leu Ala Arg Leu Arg Ser Arg Leu Met Trp
65                  70                  75                  80
Pro Arg Leu Leu Ala Asn Leu Pro Cys Ser Trp Ala Arg Ala Pro Ser
                85                  90                  95
Ala Ala Pro Pro Ser Cys Ser Pro Ser Thr Ser Arg Pro Ser Trp Ala
            100                 105                 110
Cys Ile Leu Val Pro Lys Ser Pro Asn Met Pro Arg Lys Ala Phe Ser
        115                 120                 125
Ile His Met Arg Glu Ser Arg Leu Arg Ser Cys Arg Ser Ala Ile Leu
    130                 135                 140
Gln Val Gln Pro
145
```

<210> 37606
<211> 203
<212> PRT
<213> A.fumigatus

<400> 37606

```
Ile Glu Asn Ala Leu Arg Gly Met Phe Gly Asp Leu Gly Thr Arg Ile
1               5                   10                  15
Gln Ala His Asp Gly Arg Leu Val Leu Gly Glu Gln Asp Gly Gly Ala
            20                  25                  30
Ala Leu Gly Ala Leu Ala His Glu Gln Gly Lys Leu Ala Ser Ser Leu
        35                  40                  45
```

```
Gly His Ile Ser Arg Leu Arg Ser Arg Ala Arg Arg Phe Glu Lys Arg
    50                  55                  60
Arg Arg Ala Asn Met Gly Ser Glu Ser Cys Leu Asp Cys Leu Gly Ala
65                  70                  75                  80
Ala Val Phe Ser Asp Ser Glu Val Ala Trp Ala Leu Leu Leu Arg His
                85                  90                  95
Ile Gly Gly Arg Gly Arg Leu Val Arg Leu Ala Leu Ala Gly His Ala
            100                 105                 110
Gly Ala Asp Gly Glu Asp Gly Val Trp Ile Gly Asp Arg Ala Met Asp
        115                 120                 125
Val His Thr Lys Glu Asp Arg Leu Ile Thr Ala Leu Glu Val Ala Glu
    130                 135                 140
Met Val Glu Val Ser Pro Val Gly Arg Ala Gly Thr Gly Val Ser Thr
145                 150                 155                 160
Gln Thr Gly Thr Val Val His Ile Leu Ala Ile Val Ala Leu Cys Asp
                165                 170                 175
Gly Arg Gly Glu Ala His Gln Arg Gly Thr Glu Asp Lys Arg Gly Pro
            180                 185                 190
His Ser Val Leu Gly Ala Arg Ala Gly Arg Glu
        195                 200
```

<210> 37607
<211> 233
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (96),(129)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37607

```
Arg Leu Ala Phe Gln Thr Ala Cys Asp Arg Ala Ala Ser Pro Trp Pro
1               5                   10                  15
Trp Thr Pro Arg Gly Thr Ser Ala Ala Thr Ser Ser Ser Pro Pro Ser
            20                  25                  30
Pro Lys Arg Arg Arg Pro Ser Thr Gly Ala Ala Gly Ala Ile Ser Ser
        35                  40                  45
Pro Arg His Ala Gly Pro Thr Ser Arg Pro Ser Leu Thr Gln Asp Trp
    50                  55                  60
Gly Asn Ser Arg Arg Pro His His Val Leu Gly Ala Gly Val Leu Thr
65                  70                  75                  80
Pro Ser His Pro Ile Cys Gln Asp Ala Phe Gly Ser Pro Arg Gln Xaa
                85                  90                  95
Thr Ser Trp Arg Ser Thr Arg Leu Ser Ser Pro Thr Met Pro Trp Arg
            100                 105                 110
Arg Cys Arg Arg Ala Lys Ser Ser Ser Arg Ile Ala Gly Ala Ser Ala
        115                 120                 125
Xaa Asp Thr Thr Thr Arg Ala Met Leu Ala Pro Thr Pro Arg Pro Pro
    130                 135                 140
Thr Gly Arg Thr Ser Ser Gln Pro Ser Gly Ala Ser Ala Arg Val Gln
145                 150                 155                 160
Ser Pro Pro Arg Ser Pro Arg Cys Arg Leu Gly Ala Ser Arg Pro Ala
                165                 170                 175
Pro Ala Thr Cys Arg Arg Arg Arg His Pro His Arg Pro Ser Pro Ala
            180                 185                 190
```

```
Thr Pro Arg Leu Ala Met Thr Phe Pro Ala Gly Pro Arg Pro Ser Gly
        195                 200                 205
Arg Leu Thr Ala Gly Arg Leu Thr His Pro Arg Gly Pro Ser Ser Asp
    210                 215                 220
Ala Asn Pro Ser Gly Ala Leu Arg Trp
225                 230
```

<210> 37608
<211> 130
<212> PRT
<213> A.fumigatus

<400> 37608

```
Leu Ser Val Thr Ala Glu Ala Arg Pro Ile Arg Glu Ala Arg Arg Thr
1               5                   10                  15
Lys Glu Gly Arg Ile Leu Phe Ser Glu Pro Val Leu Ala Gly Asn Glu
            20                  25                  30
Gly Glu Gly Thr Cys Glu Glu Gln Thr Glu Ser Glu Ser Leu Glu Gly
        35                  40                  45
Tyr Gly Ala Tyr Asn Gly Leu Met Ser Asn Ala Ser Ser Ser Cys Lys
    50                  55                  60
Leu Pro Ile Ser Ala Gln Ala Ile Ser Cys Arg Ala Ile Glu Ile Arg
65                  70                  75                  80
Gly Lys Leu Thr Thr Leu Val Gly Val Ala Arg Phe Pro Leu Met Met
                85                  90                  95
His Glu Ala Pro Ala Pro Leu Glu Lys Gln Gly Lys Leu Leu Lys Ser
            100                 105                 110
Gly Leu Ser Ala Glu Cys Lys Leu Ala Leu Lys Cys Pro Ser Ala Thr
        115                 120                 125
Gln Pro
    130
```

<210> 37609
<211> 432
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (209),(242)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37609

```
Ser Trp Cys Ile Gln Leu Leu Thr Leu Leu Pro Leu Leu Lys Tyr Pro
1               5                   10                  15
Ile Trp Leu Ala Thr Arg Thr Met Gly Ser Ala Leu Asn Ser Pro Val
            20                  25                  30
Tyr Ile Asp Tyr Gly Glu Phe Phe Met Asn Ser Ser Asn Val Leu Ala
        35                  40                  45
Val Pro Tyr Gln Asn Val Thr Ala Ala Phe Thr Thr Pro Val Ala Val
    50                  55                  60
Asn Ser Thr Ala Ile Asp Gly Phe Asp Trp Thr Gln Pro Tyr Pro Gly
65                  70                  75                  80
Ser Arg Arg Asp Gly His Thr Val Tyr Leu Glu Ile Ala Gln Glu Met
                85                  90                  95
Pro Leu Ser Ala Ser Ile Val Glu Asn Ser Thr Thr Val Leu Ser Ser
```

```
            100                 105                 110
Leu Thr Phe Gly Ile Pro Asp Ser Met Arg Ser Gly Gly Gln Pro Leu
        115                 120                 125
Ala Met Asp Pro Ser Trp Tyr Ile Cys Arg His Val Phe Ile Ser Thr
    130                 135                 140
Lys Pro Glu Ala Lys Ala Ala Val Asp Gly Gly Arg Arg Cys Asp Phe
145                 150                 155                 160
Leu Ser Gln Ala Cys Arg Ala Asp Leu Lys Thr Gln Leu Asp Pro Gly
                165                 170                 175
Leu Gly Glu Gln Pro Pro Thr Ala Pro Cys Ala Arg Arg Trp Gly Phe
            180                 185                 190
Asp Pro Ile Pro Pro Asn Leu Ser Gly Arg Val Trp Phe Ala Pro Pro
        195                 200                 205
Xaa Asn Val Met Ala Phe Asp Ala Ala Phe Phe Ala Asp Asp Ala Leu
    210                 215                 220
Ala Pro Val Gln Thr Ser Gln Glu Gln Gln Pro Tyr Ser Trp Arg Ile
225                 230                 235                 240
Gly Xaa Gly Tyr His Asp Pro Gly Asp Ala Arg Ala Tyr Ala Ala Ala
                245                 250                 255
Ala Asn Arg Thr Tyr Leu Val Ala Thr Val Trp Gly Phe Ser Pro Ser
            260                 265                 270
Ala Lys Ser Thr Pro Val Pro Glu Val Ser Phe Gly Cys Leu Ser Ser
        275                 280                 285
Gly Ser Ser Tyr Val Pro Pro Pro Pro Ser Pro Pro Ser Ser Ile Pro
    290                 295                 300
Ser Asp Ala Ala Phe Gly Asp Asp Phe Ser Ser Gly Ser Ala Ala Gln
305                 310                 315                 320
Trp Thr Thr Tyr Gly Gly Ser Phe Asp Ala Ser Ser Gly Ala Phe Val
                325                 330                 335
Gly Arg Lys Ser Leu Gly Gly Leu Ala Leu Val Asn Ser Asn Phe Ser
            340                 345                 350
Asn Phe Leu Phe Glu Ala Asp Val Thr Leu Pro Ser Thr Ser Gly Asn
        355                 360                 365
Ala Gly Leu Val Phe Arg Ala Ser Asn Pro Ser Val Gly Ala Asp Ala
    370                 375                 380
Tyr Asn Gly Tyr Tyr Ala Gly Ile Ser Ala Ser Gly Val Val Leu Gly
385                 390                 395                 400
Arg Ala Ser Asn Asn Trp Thr Gln Leu Gly Ser Gly Ala Ala Glu Leu
                405                 410                 415
Ala Ala Phe Ser Met Arg Ser Ser Arg Ser Gly Tyr Ser Ser Pro Gly
            420                 425                 430
```

<210> 37610
<211> 187
<212> PRT
<213> A.fumigatus

<400> 37610

```
Lys Tyr Arg Gln Val Thr Val Thr Gln Leu Thr Met Lys Pro Ala His
1               5                   10                  15
Leu Ser Asn Ser Leu Val Phe Leu Ile Leu Pro Ala Leu Gly Tyr Ala
            20                  25                  30
Ala Pro Ala Ser Ala Thr Thr Gln His Gln Ala Arg Asp Val Lys Ile
        35                  40                  45
Thr Ala Thr Gln Ile Glu Thr Ile Ala Pro Lys Ser Lys Ser Cys Ala
    50                  55                  60
```

```
Asp Ala Pro Ala Pro Gly Glu Cys Ala Thr Ser Glu Gln Ala Ala Ala
65                  70                  75                  80
Asn Ile Ala Lys Ser Phe Glu Thr Tyr Lys Val Thr Ser Ala Ala Glu
                85                  90                  95
Gln Ala Ala Val Ile Gly Leu Met Ala Phe Glu Ser Leu Asp Phe Glu
            100                 105                 110
Tyr Asn Arg Asn His Phe Pro Gly Val Ala Gly Gln Gly Ser Met Phe
        115                 120                 125
Ala Leu Val Phe Ser Phe Phe Phe Phe Tyr Asp Ser Tyr Phe Cys Lys
    130                 135                 140
Arg Lys Val Asp Pro Asp Val Asn Ser Pro Glu Tyr Ala Ile Ala Cys
145                 150                 155                 160
Ile Gln Cys Gln Val Cys Gly Phe Ser Ala Ser Ser Cys Arg Gln Val
                165                 170                 175
Glu Gly Arg Val Trp Arg Ser Gly Gly Cys Pro
            180                 185
```

<210> 37611
<211> 216
<212> PRT
<213> A.fumigatus

<400> 37611

```
Leu Glu Leu Ile Gln Gly Cys Asn Arg Arg Leu Asp Pro Leu Leu Ser
1               5                   10                  15
Tyr Pro Ala Trp Val Arg Arg Thr Val Pro Thr Gly Ile Ser Asn Asp
            20                  25                  30
Ala Met Gly Ser Val Pro Gln His Pro Phe Phe Leu Arg Val Ile Glu
        35                  40                  45
Leu Leu Lys Ser Tyr Asp Arg Ser Trp Leu Leu Pro Tyr Ile Thr Val
    50                  55                  60
Met Tyr Ser Thr Gly Pro Leu Phe Leu Ser Val Ile Trp Lys Glu Tyr
65                  70                  75                  80
Met Gln Asp Lys Pro Ser Glu Ala Ala Arg Val Arg Ile Leu Met Gln
                85                  90                  95
Asp Glu Tyr Asn Lys Tyr Ser Trp Ser Phe Phe Thr His His Val Gly
            100                 105                 110
Asn Ser Trp His Gly Lys Asp Ala Arg Leu Ile Phe Trp Met Gly Gln
        115                 120                 125
His Trp Met Phe Leu Thr Val Leu Gly Phe Ile Leu Ala Ser Val Val
    130                 135                 140
Gly Phe Cys Leu Trp Trp Val Tyr Gly Arg Met Ile Leu Leu Ser Ser
145                 150                 155                 160
Lys Tyr Arg Tyr Arg Tyr Ser Lys Leu Pro Gly Leu Gly Arg Leu Ser
                165                 170                 175
Ser Pro Thr Arg Arg Ser Arg Gly Val Met Pro Thr Leu Leu Arg Arg
            180                 185                 190
Val Ser Phe Lys Glu Asp Glu Glu Ser Ala His Val Thr Glu Thr Ser
        195                 200                 205
Phe Glu Leu Tyr Ser Arg Arg Asp
    210                 215
```

<210> 37612
<211> 103
<212> PRT
<213> A.fumigatus

<400> 37612
Ile Ala Arg Asn Met Gln Ser Pro Ala Phe Asn Ala Lys Tyr Ala Ala
1 5 10 15
Ser Leu Pro Ala Leu Ala Asp Lys Leu Lys Asp Val Ser Gly Asp Pro
20 25 30
Ala Gly Val Leu Asp Leu Leu Leu Ser Asn Glu Glu Tyr Asp Phe Gly
35 40 45
Ser Gly Ala Trp Phe Leu Thr Thr Gln Cys Ser Gln Asp Val Arg Ser
50 55 60
Glu Leu Gln Ser Gly Ser Gln Gly Gly Trp Glu Lys Tyr Ile Thr Ser
65 70 75 80
Cys Val Gly Thr Asp Ala Asn Glu Glu Arg Lys Ala Tyr Trp Met Arg
85 90 95
Ala Val Gln Ala Leu Gly Ala
100

<210> 37613
<211> 187
<212> PRT
<213> A.fumigatus

<400> 37613
Asn Ala Gly His Val Pro Leu Lys Arg Ser Asp Thr Glu Arg Asp Pro
1 5 10 15
Asp Tyr Cys Ser Val Leu Gly Val Glu Ile Leu Leu Arg Gln Ala Asp
20 25 30
Ser Arg Phe Asn Cys Thr Gly Thr Phe Trp Ser Pro Ala Pro Arg Asn
35 40 45
Thr Thr Leu Gln Leu Leu Asn Leu Pro Pro Tyr Ile Tyr Thr Met Pro
50 55 60
Leu Pro Ala Arg Thr Ala Thr Val Ser Arg Val Thr Asn Glu Thr Lys
65 70 75 80
Ile Gln Val Ser Leu Ser Leu Asp Gly Gly Val Leu Pro Pro Tyr Glu
85 90 95
Pro Ser Asp His Phe Pro Ala Pro Glu Asp Leu Lys Glu Ala Glu Ala
100 105 110
Ala Asn His Gly Ile Val Pro Pro Lys Asn Ala Ala His Ala Thr Gln
115 120 125
Phe Thr Pro Thr Gln Gln Ile Thr Val Ser Thr Gly Ile Gly Phe Leu
130 135 140
Asp His Met Leu His Ala Leu Ala Lys His Ser Gly Trp Ser Leu Ala
145 150 155 160
Ile Arg Ala Lys Gly Asp Leu Tyr Ser Met Cys Phe Ser Leu Val His
165 170 175
Ser His Tyr Ile Val Ala Asn Val Leu Tyr Ser
180 185

<210> 37614
<211> 165
<212> PRT
<213> A.fumigatus

<400> 37614
Pro Ser Glu Pro Arg Glu Ile Cys Thr Val Cys Ala Ser Val Ser Ser
1 5 10 15

```
Thr Arg Thr Ile Ser Trp Leu Met Cys Cys Thr Val Asp Asp His His
            20                  25                  30
Thr Thr Glu Asp Thr Phe Leu Ala Leu Gly Thr Ala Phe Thr Lys Ala
        35                  40                  45
Leu Gly Ala Arg Gln Ser Leu Ala Arg Phe Gly Arg Gly Asp Ala Pro
    50                  55                  60
Leu Asp Glu Ala Leu Ser Trp Ala Val Ile Asp Leu Ser Ser Arg Pro
65                  70                  75                  80
Trp Ala Val Ile Asn Leu Gly Phe Lys Arg Glu Lys Ile Gly Asp Leu
                85                  90                  95
Ser Thr Glu Met Ile Thr His Gly Leu His Ser Phe Ala Gln Ala Ala
            100                 105                 110
Asp Val Thr Leu His Val Gly Cys Thr Tyr Gly Asp Asn Asp His His
        115                 120                 125
Arg Ala Glu Ser Ala Phe Lys Ala Leu Ala Val Ala Ile Arg Thr Ala
    130                 135                 140
Cys Thr Arg Arg Val Ala Gly Glu Val Gly Ala Gly Asp Val Val Ser
145                 150                 155                 160
Thr Lys Gly Val Leu
                165
```

<210> 37615
<211> 141
<212> PRT
<213> A.fumigatus

<400> 37615

```
Val His Ile Val Ile Gln Arg Leu Val Ile Asp Ser Asp Ser Thr Thr
1               5                   10                  15
Ala Gly Ile Pro Asn Val Tyr Tyr Phe Gly Gln Glu Gly Leu His Asn
            20                  25                  30
Ile Leu Val Ile Asp Leu Leu Gly Pro Ser Leu Glu Asp Leu Phe Asp
        35                  40                  45
His Cys Asn Arg Arg Phe Thr Val Lys Thr Val Val Met Val Ala Lys
    50                  55                  60
Gln Met Val Arg Val Val Phe Thr Pro Pro Ala Cys Pro Ile Leu Thr
65                  70                  75                  80
Pro Leu Pro Ala Phe Ala Arg Pro Asn Asn Pro Arg Lys Glu Ser Asp
                85                  90                  95
Leu Ser Arg Tyr Gln Thr Gly Gln Phe Pro His Arg Thr Ala Gly His
            100                 105                 110
Gln Gly Cys Lys Cys Asp Ser Cys Arg Arg Leu Trp Tyr Gly Gln Ala
        115                 120                 125
Ile Gln Arg Ser Gln Asp Gln Ala Ala His Pro Leu Ser
    130                 135                 140
```

<210> 37616
<211> 197
<212> PRT
<213> A.fumigatus

<400> 37616

```
Leu Asn His Ala Glu Glu Phe Asn Lys Tyr Leu Thr Tyr Val Arg Asn
1               5                   10                  15
Leu Gly Phe Glu Asp Thr Pro Asp Tyr Asp Tyr Leu Arg Asp Leu Leu
            20                  25                  30
```

```
Thr Gln Ala Leu Lys Asn Ala Gly Glu Val Glu Asp Gly Glu Tyr Asp
        35                  40                  45
Trp Met Lys Leu Asn Gly Gly Arg Gly Trp Glu Tyr Lys Ala Tyr Ser
    50                  55                  60
Ser Gln Gln His Leu Gln His Asn Leu Pro Asn Ser Ser Ala Arg Glu
65                  70                  75                  80
Leu His Ala Gln Gln Leu Arg Gly Ser Gln Arg Pro Gly Val Thr Ala
                85                  90                  95
Asp Arg Leu Asn Ala Ala Gln Pro Pro Pro Pro Ser Pro Ala Lys Pro
            100                 105                 110
Gly Ala Gly Lys Thr Arg Asp Arg Pro Ser Ala Ser Gly Gly Met Pro
        115                 120                 125
Pro Lys Arg Gln Ser Gly Gly Leu Glu Ala Thr Thr Pro Thr Ala Ser
    130                 135                 140
Thr Gln Ala Gln Phe Gln Asn Ser Asn Ala Asn Leu Ser Gly His Met
145                 150                 155                 160
Gly Ser Pro Ala Asn Pro Thr Lys Asn Ser Gln Gln Gly Gln Gly Thr
                165                 170                 175
Gln Gly Asn Asp Pro Gln Pro Thr Phe Val Gln Lys Leu Met Lys Ala
            180                 185                 190
Leu Cys Cys Gly Arg
        195

<210> 37617
<211> 146
<212> PRT
<213> A.fumigatus

<400> 37617
His His Tyr Gln Leu Ser Arg Val Gln Thr Ile His Glu Lys Asn Leu
1               5                   10                  15
Ile Tyr Arg Asp Ile Lys Pro Asp Asn Phe Leu Ile Gly Arg Pro Gly
            20                  25                  30
Thr Lys Ala Ala Asn Val Ile His Val Val Asp Phe Gly Met Ala Lys
        35                  40                  45
Gln Tyr Arg Asp Pro Lys Thr Lys Gln His Ile Pro Tyr Arg Glu Arg
    50                  55                  60
Lys Ser Leu Ser Gly Thr Ala Arg Tyr Met Ser Ile Asn Thr His Leu
65                  70                  75                  80
Gly Arg Glu Gln Ser Arg Arg Asp Asp Leu Glu Ala Leu Gly His Val
                85                  90                  95
Phe Leu Tyr Phe Leu Arg Gly Gly Leu Pro Trp Gln Gly Leu Lys Ala
            100                 105                 110
Ala Thr Asn Lys Gln Lys Tyr Glu Lys Ile Gly Glu Lys Lys Gln Thr
        115                 120                 125
Thr Ala Ile Lys Asp Leu Cys Glu Gly Tyr Pro Gly Met Leu Phe Thr
    130                 135                 140
Lys Leu
145

<210> 37618
<211> 194
<212> PRT
<213> A.fumigatus

<400> 37618
```

```
Ala Asn Ser Tyr Phe Pro Gly Tyr Leu Phe Phe Leu Ser Thr Gly Ile
1               5                  10                  15
Phe Phe Gly Phe Lys Lys Pro Leu Ile Phe Phe Ala Phe Glu Asn Ile
            20                  25                  30
Glu Ser Val Ser Tyr Thr Ser Val Leu Gln Arg Thr Phe Asn Leu Asn
        35                  40                  45
Ile Ala Val Arg Pro His Asn Gly Asp Glu Asn Ala Thr Gln Glu Val
    50                  55                  60
Glu Leu Ser Met Ile Asp Gln Ala Asp Tyr Ala Gly Ile Asp Ala Tyr
65                  70                  75                  80
Ile Lys Lys Asn Gly Leu Gln Asp Ala Ser Leu Ala Glu Ala Arg Arg
                85                  90                  95
Ala Lys Arg Tyr Asn Ile Asn Gly Ala Lys Ala Glu Glu Asn Ala Ala
            100                 105                 110
Gly Thr Ala Asn Asp Asn Ala Val Glu Glu Ser Glu Leu Gln Lys Ala
        115                 120                 125
Gln Arg Glu Leu Glu Asp Gln Glu Asp Glu Glu Glu Glu Asp Tyr Asn
    130                 135                 140
Pro Gly Ser Asp Gly Glu Ser Asp Gly Ser Gly Ser Ser Ser Glu Glu
145                 150                 155                 160
Gly Asp Asp Gly Asn Glu Glu Gly Asp Glu Asp Asp Glu Gly Gln Asp
                165                 170                 175
Leu Val Ala Ala Glu Leu Gly Ser Glu Ala Glu Asp Val Ala Glu Asp
            180                 185                 190
Glu Leu
```

<210> 37619
<211> 89
<212> PRT
<213> A.fumigatus

<400> 37619

```
Gln Asp Leu Val Tyr Val Glu Cys Thr Lys Val Ser Val Thr Asp Pro
1               5                  10                  15
Arg His Lys Ser Gln Phe Val Leu Ser Tyr Val Phe Cys Phe Ala Pro
            20                  25                  30
Lys Leu Gly Arg Asn Lys Val Leu Pro Phe Ile Ile Phe Val Ala Phe
        35                  40                  45
Phe Ile Ala Ile Val Pro Leu Phe Ala Ala Arg Ala Thr Thr Ile Ala
    50                  55                  60
Leu Ala Ile Ala Pro Arg Ile Val Val Phe Phe Phe Leu Ile Leu Leu
65                  70                  75                  80
Ile Phe Lys Leu Ala Leu Ser Leu Leu
                85
```

<210> 37620
<211> 442
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (8)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37620

```
Gly Arg Leu Met Ser Ala Ala Xaa Glu Gly His Gly Trp Ser Lys Leu
1               5                  10                  15
Trp Asp Ser Val Asp Met Arg Ala Ile Glu Arg Asp Ile Thr Glu Ser
            20                  25                  30
Arg Leu His Leu His Arg Thr Phe Leu Lys Ala Thr Glu Asn Leu Val
        35                  40                  45
Lys Arg Pro Arg Arg Pro Leu His Lys Pro Glu Glu Ile Arg Phe Leu
    50                  55                  60
Leu Ile Leu Leu Val Asn Pro Leu Ile Tyr Pro Ser Ser Pro Ser Ser
65                  70                  75                  80
Pro His Val Asn Leu Thr Gln Ser Gln Gly Gly Arg Arg Pro Ser His
                85                  90                  95
Pro Lys Glu Ser Arg Glu Arg Ile Pro Leu Arg Asp Ala Arg Pro Ser
            100                 105                 110
Pro Lys Glu Gln Leu Gly Pro Ser Ala Pro Cys Ser Gly Pro Pro Gly
        115                 120                 125
His His Phe Gly Ile Val Lys Arg Ile Leu Gly Leu Met Ala His Leu
    130                 135                 140
Pro Asn Asp Cys His His Tyr Leu Val Ser Trp Phe Ser Arg Leu Pro
145                 150                 155                 160
Thr Gly Gln Phe Glu Arg Leu Val Asp Leu Val Gly Ser Phe Val Thr
                165                 170                 175
Tyr Arg Leu Ser Arg Gln Gln Gly Arg Lys Arg Ser Glu Ala Ile Glu
            180                 185                 190
Asn Asp Asn Ser Leu Val Pro Ser Phe Ser Ser Ala Ala Gly Asn Thr
        195                 200                 205
Pro Ala Glu Leu His Ala Ala Ile Asn Gly Arg Gly Pro Ser Lys Pro
    210                 215                 220
Ala Lys Asp Lys Arg Ile Lys Pro Val Val Tyr Gly Asp Asp Trp Gln
225                 230                 235                 240
Ile Arg Ala Ala Ala Arg Val Met Ser Leu Leu Phe Thr Ala Asn Asn
                245                 250                 255
Thr Ser Ala Ala Arg Lys Pro Asp Ala Ala Phe Gly Gln Glu Ala Gly
            260                 265                 270
Ser Leu Ala Asn Arg Ala Ala Ala Asn Arg Arg Gly His Lys Val Pro
        275                 280                 285
Ile Ser Ala Phe Tyr Asn Thr Leu Leu Asp Tyr Ser Asp Leu Val Ala
    290                 295                 300
Asp Phe Glu Ala Trp Glu Ser Lys Met Ala Lys Phe Ser Phe Cys Gln
305                 310                 315                 320
Tyr Pro Tyr Phe Leu Ser Ile Trp Ala Lys Ile His Ile Met Glu His
                325                 330                 335
Asp Ala Arg Arg Gln Met Glu Val Lys Ala Arg Glu Ala Phe Phe Asn
            340                 345                 350
Ser Ile Leu Ser Arg Lys Ala Ile Ser Gln Tyr Leu Val Leu Lys Val
        355                 360                 365
Arg Arg Asp Cys Leu Val Asp Asp Ser Leu Arg Ser Val Ser Glu Val
    370                 375                 380
Val Gly Ser Asn Gln Glu Glu Ile Lys Lys Gly Leu Arg Ile Glu Phe
385                 390                 395                 400
Val Gly Glu Glu Gly Val Asp Ala Gly Gly Leu Arg Lys Glu Trp Phe
                405                 410                 415
Leu Leu Leu Val Arg Glu Ile Phe Asp Pro His His Gly Met Ser Thr
            420                 425                 430
Ala Leu His Ala Lys Thr Glu Ser Ser Ser
```

435 440

<210> 37621
<211> 327
<212> PRT
<213> A.fumigatus

<400> 37621
Pro Ser Ser Arg Tyr Val Asp Gly Val Ala Arg Gln Asn Arg Glu Leu
1 5 10 15
Glu Leu Ile Asp Thr Gly Leu Phe Leu Tyr Asp Glu Asp Ser Arg Phe
20 25 30
Cys Tyr Phe Asn Pro Tyr Cys Phe Glu Ser Ser Glu Gln Phe Phe Leu
35 40 45
Val Gly Val Leu Leu Gly Leu Ala Ile Tyr Asn Ser Thr Ile Leu Asp
50 55 60
Ile Ala Leu Pro Pro Phe Ala Phe Lys Lys Leu Leu Ala Ala Ala Pro
65 70 75 80
Gln Thr Ser Gly Pro Gln Pro Ser Ser Ala Arg Ser Asn Tyr Arg Cys
85 90 95
Thr Leu Asp Asp Leu Ala Glu Tyr Arg Pro Ala Leu Ala Lys Gly Leu
100 105 110
Arg Ala Leu Leu Glu Phe Asp Gly Asp Val Ala Asp Thr Phe Cys Tyr
115 120 125
Asp Phe Val Ala His Val Asp Arg Tyr Gly Glu Ala Val Ala Val Pro
130 135 140
Leu Cys Pro Gly Gly Glu Thr Arg Pro Val Thr Asn Ala Asn Arg Arg
145 150 155 160
Glu Phe Val Asp Leu Tyr Val His Tyr Met Leu Asp Thr Ala Val Thr
165 170 175
Arg Gln Phe Glu Pro Phe Lys Arg Gly Phe Phe Thr Val Cys Gly Gly
180 185 190
Asn Ala Leu Ser Leu Phe Arg Pro Glu Glu Ile Glu Leu Leu Val Arg
195 200 205
Gly Ser Asp Glu Ala Leu Asp Val Ala Ser Leu Arg Ala Val Ala Thr
210 215 220
Tyr Asp Asn Trp Ser His Pro Arg Pro Glu Asn Ile Pro Val Val Arg
225 230 235 240
Trp Phe Trp Glu Phe Phe Glu Asn Thr Asp Pro Gln Ala Gln Arg Lys
245 250 255
Ile Leu Ser Phe Ile Thr Gly Ser Asp Arg Ile Pro Ala Met Gly Ala
260 265 270
Thr Ser Leu Thr Ile Arg Leu Ala Cys Leu Gly Asp Asp Ala Ser Arg
275 280 285
Tyr Pro Ile Ala Arg Thr Cys Phe Asn Thr Leu Gly Leu Tyr Arg Tyr
290 295 300
Pro Thr Arg Glu Lys Leu Glu Arg Met Leu Trp Glu Ala Val Gly Asn
305 310 315 320
Ser Glu Gly Phe Gly Leu Lys
325

<210> 37622
<211> 211
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (89),(127)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37622
Pro Ser Val Tyr Ser Leu Leu Phe Asp Asn Cys Ile Ala Thr Arg Leu
1 5 10 15
Ser Ser Val Arg His Leu Ser Val Leu Ser Ser Pro Leu Ser Ser Leu
20 25 30
Gln Leu Ser Leu Phe Glu Ile Thr His Ile Tyr Glu Ser Arg Ser Pro
35 40 45
His Glu Arg His Lys Leu Lys Ile Met Ala Thr His Val Val Thr Thr
50 55 60
Thr Thr Thr Ile Ser Pro Leu Ser Ala Asn Gln Ile Ser Val Tyr Gly
65 70 75 80
His Pro Ser Pro Val Asn Ser Val Xaa Ala Thr Pro Ala Asn Asn Ser
85 90 95
Pro Ile Thr Pro Arg Leu Gln His Leu Pro Leu Gln Cys Arg Gln Leu
100 105 110
Arg Leu Leu Lys Gly Pro Leu Tyr Val Pro Ala Ala Leu Arg Xaa Thr
115 120 125
Glu Arg Pro Gln Lys Ser Ser Pro Pro Thr His Pro Arg Ser Ala His
130 135 140
Gly Ser Leu Asp Ser Leu Asn Asn Glu Glu Pro Ser Thr Leu Val Ser
145 150 155 160
Arg Arg Ser Thr Met Glu Ser Asn Phe Asn Asn Thr Ile Ser Lys Leu
165 170 175
Ala Glu Asn Glu Trp Met Lys Met Glu Gln Leu Gly Gln Val Thr Gly
180 185 190
Leu Pro Thr Arg Glu His Trp Lys Val Ser Ile Phe Phe Phe Leu Phe
195 200 205
Ser Ser Ser
210

<210> 37623
<211> 167
<212> PRT
<213> A.fumigatus

<400> 37623
Ser Phe Thr Leu Pro Gly Leu Ser Thr Ala Leu Gly Asn Glu Gln Lys
1 5 10 15
Ile Asn Asn Ala Pro Ser Gln Ala Asp Ala Ala Ser Pro Asn Cys Asp
20 25 30
Ser Pro Thr Cys Arg Ser Ser Phe Gly Leu Phe Leu Arg Arg His His
35 40 45
Cys Arg His Cys Gly His Val Phe Cys Ser Ser His Thr Pro His Ile
50 55 60
Val Pro Leu Asp Gln Asp Ala Arg Phe His Pro Glu Gly Val Pro Ser
65 70 75 80
Arg Ala Cys Asp Leu Cys Trp Ser Ala Tyr Gln Arg Trp Glu Glu Ala
85 90 95
Arg Thr Glu Arg Leu Asn Lys Ile Gln Ser Leu Leu Ala Gln Gln Glu
100 105 110
Thr Thr Gly Asn Asn Asn Gln Asp Thr Glu Ser Ala Thr Asn Ala Thr

```
        115                 120                 125
Ala Ser Ser Asp Thr Leu Gln Gln Asp Asp Pro Ser Asn Gln Ala Thr
    130                 135                 140
Asn Ala Ser Gln Gly Gln Ala Thr Asp Ile Ala Ala Ser Val Pro Arg
145                 150                 155                 160
Gly Trp Asn Trp Ser Thr Phe
                165
```

<210> 37624
<211> 249
<212> PRT
<213> A.fumigatus

<400> 37624

```
Ile Gly Ser Leu Ile Tyr Ala Leu Arg Leu Ser Tyr Ile Phe Cys Ile
1               5                   10                  15
Cys Ile Pro Ser Ser Asp Ser Phe Ser Glu Ser Val Leu Met Ile Leu
            20                  25                  30
Leu Arg Gly Leu Ser Asp His His Ser Gly Pro Phe Arg Ser Ser Val
        35                  40                  45
Arg Ser Thr Gly Phe His Ser Gly Phe Leu Ser Phe Ala Pro Phe Arg
    50                  55                  60
Ser Leu Arg Met Gly Phe His Ala Ala Asp Arg Lys Gly Ser Cys Arg
65                  70                  75                  80
Cys Cys Ser Asp Ser Gly Tyr Pro Val Met Leu Leu Ser Glu Arg Arg
                85                  90                  95
Cys Val Ile Ser Ile Leu Met Val Tyr Gly Ala Tyr Glu Gly Met Ala
            100                 105                 110
Trp Leu Leu His Leu Leu Asn Ser Tyr Gln Gly Thr Ile Asp Gly Cys
        115                 120                 125
Leu Ile His Tyr Asn Asp Ser Leu Ser Arg Tyr Leu Arg Ser Asp Pro
    130                 135                 140
Phe Ser His Cys Lys Ser Met His Glu Ala Leu Gly Gln Ser Ser Ser
145                 150                 155                 160
Thr Ser Leu His Ala Gln Cys Pro Pro His Pro Thr Ser Pro Ser Ser
                165                 170                 175
His Pro Ser Gln Thr Gln Thr Ala His Thr Ser Ser Pro Pro Ala Pro
            180                 185                 190
Val Arg Glu Pro Ala Pro Thr Pro Ser Thr Ser Thr Pro Ser Pro Pro
        195                 200                 205
Pro Ala Asp Thr Pro Pro Gly Ser Pro Ser His Asp Pro Ser Pro Thr
    210                 215                 220
Pro Met Pro Pro Gln Pro Val Ser Ala Arg Val Gln Asp Leu Gly Thr
225                 230                 235                 240
Pro Ser Lys Pro Pro Leu Ser Ser Thr
                245
```

<210> 37625
<211> 76
<212> PRT
<213> A.fumigatus

<400> 37625

```
Met Ser Leu Tyr Tyr Asp Ala Val Ser Val Leu Thr Ala Pro Ser Ser
1               5                   10                  15
Thr Gly Gly Ser Phe Lys Ser Arg Ile Tyr Ser Ser Arg Asn Leu Lys
```

```
            20                  25                  30
Ser Ser Pro Ala Gln Ile Tyr Ala Leu Val Ile Glu Ala Ser Lys Trp
        35                  40                  45
Asp Ile Leu Leu Lys Glu Val Ile Glu Ala Ala Gly Ile Leu Lys His
    50                  55                  60
Glu Pro Lys Val Ala Thr Ile Met Phe Tyr Leu Pro
65                  70                  75

<210> 37626
<211> 331
<212> PRT
<213> A.fumigatus

<400> 37626
Pro Arg Pro Val Val Glu Gln Leu Thr Pro Leu Leu Ala Leu Leu Leu
1               5                   10                  15
Val His Asp His Leu Leu Ala Lys Asn Gly Ile Ala Ala Asn Ala Asn
            20                  25                  30
His Pro Leu Arg Gln Ala Ile Glu Arg His Lys Thr Arg Leu Asn Gly
        35                  40                  45
Glu Phe Val Lys Ala Arg Val Arg Arg Gly Cys Ala Ser Ile Pro Asp
    50                  55                  60
Leu Lys Ala Ala Val Leu Arg Glu Lys Gln Ala Ala Gln Gly Ala Val
65                  70                  75                  80
Gly Thr Ser Ser Thr Ala Val Tyr Pro Arg Trp Val Arg Ile Asn Asn
                85                  90                  95
Leu Arg Thr Thr Met Glu Glu Gln Leu Gln Ser Thr Phe Lys Ser Tyr
            100                 105                 110
Thr Arg Val Asn Ser Leu Ala Glu Leu Gly Glu Lys Asp Glu Ala Lys
        115                 120                 125
Leu Tyr Val Asp Pro His Val Pro Asp Leu Val Ala Val Ala Pro Gly
    130                 135                 140
Val Asp Phe Thr Ser Ser Pro Ala Tyr Lys Asn Gly Gln Ile Ile Leu
145                 150                 155                 160
Gln Asp Lys Ala Ser Cys Phe Pro Ala Tyr Leu Leu Leu Gly Asp Ser
                165                 170                 175
Glu Asp Trp Ser Gly Asp Leu Leu Asp Gly Cys Ala Ala Pro Gly Asn
            180                 185                 190
Lys Thr Thr His Met Ala Ser Leu Leu Ala Lys His Ala Ala Gly Arg
        195                 200                 205
Asp Val Thr Arg His Ile Val Ser Met Asp Ala Ser Lys Val Arg Ser
    210                 215                 220
Lys Thr Leu Gln Lys Met Val Ser Ala Ala Gly Ala Asp Asn Ile Val
225                 230                 235                 240
Thr Val Leu Gln Gly Gln Asp Phe Leu Ala Leu Asp Pro Thr Glu Glu
                245                 250                 255
Arg Phe Ala Asn Val Thr Gly Leu Leu Leu Asp Pro Asn Cys Ser Gly
            260                 265                 270
Ser Arg Ile Val Arg Arg Asp Asp Val Pro Lys Leu Pro Leu Pro Ala
        275                 280                 285
Ala Ala Ser Pro Pro Thr Asn Leu Ile Thr Gly Lys Arg Ser Ala Asn
    290                 295                 300
Pro Arg Pro Asp Asp Glu Gly Gly Asp Ser Ala Pro Gly Asn Ala Gly
305                 310                 315                 320
Gly Cys Glu Leu Asn Phe Ser Val Arg Asp Arg
                325                 330
```

<210> 37627
<211> 64
<212> PRT
<213> A.fumigatus

<400> 37627
Trp Ile Ser Thr Asn Cys Pro Ser Ser Tyr Ser Pro Ser Phe Thr Ser
1 5 10 15
Asn Ala Gln His Ile Lys Met Thr Val Asp Pro Asn Pro Lys Ser Phe
20 25 30
Thr Gly Gly Leu Gln Thr Pro Ala Glu Thr Gly Leu Asn Leu Pro Ile
35 40 45
Ser Ser Asn His Phe Pro Pro Thr Thr Pro Arg Leu Ser Thr Thr Arg
50 55 60

<210> 37628
<211> 126
<212> PRT
<213> A.fumigatus

<400> 37628
Leu Leu Gln Leu Tyr Ala Gly Leu Leu Ser Gln Glu Leu Lys Val Phe
1 5 10 15
Leu Phe Phe Ser Asp Ala Pro Glu Ser Ala Gln Thr Ile Ile Pro Ser
20 25 30
Phe Arg Ala Ser Ile Asp Gln Val Cys Leu Tyr His Ile Asp Ile Met
35 40 45
Val Ala Tyr Gln Leu Leu Leu Ser Leu Ala Thr Ala Gly Met Val Ser
50 55 60
Ala Gln Asn Thr Val Thr Ser Met Leu Ile Tyr Gly Ala Asp Pro Gln
65 70 75 80
Pro Leu Val Ala Ser Val Val Gly Ser Val Ser Ser His Glu Ser Cys
85 90 95
Gln Phe Leu Thr Leu Gly Arg Gln Ser Asp Leu Ala Ser Leu Gly Arg
100 105 110
His Arg Asn Asn Leu Gln His Gln Leu Ser Pro Arg His Arg
115 120 125

<210> 37629
<211> 62
<212> PRT
<213> A.fumigatus

<400> 37629
Arg Tyr Leu Asn Phe Phe Ser Thr Leu Ala Phe Ser Ala Thr Leu Met
1 5 10 15
Ala Ser Trp Glu Thr Val Gly Gly Ser Ile Ala Ala Gly Leu Leu Asn
20 25 30
Gly Gly Pro Ser Ala Ile Val Tyr Gly Met Val Phe Ser Thr Ile Gly
35 40 45
Ser Val Ala Val Ala Ala Ser Leu Ala Glu Leu Ala Ser Val
50 55 60

<210> 37630
<211> 176

<212> PRT
<213> A.fumigatus

<400> 37630
Thr Val Cys Tyr Lys Arg Lys Leu Gln Ser Lys Tyr Thr Glu Ser His
1 5 10 15
Cys Ser Ser Pro Glu Lys Pro Ser Ser Thr Thr Ser His Pro Arg His
20 25 30
Pro Pro Gly Thr His Ser Arg Arg Gly Leu Ala Arg Ser Ser Arg Ser
35 40 45
Gly Arg Ser Gly Ser Thr Gly Ser Arg Arg Arg Arg Thr Arg Thr Ser
50 55 60
Thr Ser Thr Ser Thr Ser Arg Asn Ser His Arg His Gln Arg Gln Ile
65 70 75 80
Ile Gly Lys Arg Arg Gly Thr Asn Thr Arg Glu Ile Arg Arg Arg Ala
85 90 95
Ala Gly Arg Leu Asp Thr His Ala Cys Gly Arg Ser Ala Asn Arg Ala
100 105 110
Ala Asp Arg Pro Met Thr Thr Ala His Gln Ser Ser Val His Arg Ser
115 120 125
Gly Gln Ser Cys Glu Phe Val Thr Tyr Lys Ser Ser Cys Gly Ser Ser
130 135 140
Ile Phe Ser Thr Val Val Val Gly Pro Ala Thr Ser Val Arg Pro Gly
145 150 155 160
Pro Met Pro Gln Ser Val Leu Ser Val Pro Gly Gly Gln Leu Met Leu
165 170 175

<210> 37631
<211> 287
<212> PRT
<213> A.fumigatus

<400> 37631
Leu Leu Trp Val Val Ser Ser Ala Glu Ile Met Phe Lys Lys His Lys
1 5 10 15
Ser Leu Thr Ile Leu Gly Val Asp Gly Val Ile His Met Ala Glu Glu
20 25 30
Val Lys Met Ala Pro Arg Thr Val Pro Arg Ser Met Ile Trp Gly Thr
35 40 45
Ile Thr Asn Gly Ile Met Ala Phe Gly Tyr Ala Ile Ala Val Leu Tyr
50 55 60
Cys Met Gly Asp Tyr Met Glu Ala Leu Thr Ser Pro Thr Gly Tyr Pro
65 70 75 80
Ile Ile Thr Ile Val Tyr Gln Ala Thr Arg Ser Lys Thr Ala Val Asn
85 90 95
Ile Leu Met Ala Met Gly Leu Leu Pro Gly Trp Ile Ala Leu Phe Asn
100 105 110
Gly Leu Ala Ser Val Thr Arg Leu Thr Trp Ala Phe Ala Arg Asp Asn
115 120 125
Gly Leu Pro Phe Ser Asp Phe Phe Val His Ile Asp Arg Lys His Lys
130 135 140
Ile Pro Ile Arg Ala Leu Phe Leu Val Ala Thr Leu Val Val Leu Leu
145 150 155 160
Ser Phe Ile Gln Ile Gly Ser Thr Ala Ala Phe Asn Ala Ile Leu Ser
165 170 175
Ile Ser Thr Leu Gly Leu Val Leu Leu Val His His Pro Pro Asp Pro

```
            180                 185                 190
Ile Gly Asp Gln Ala Leu Pro Arg Ala Pro Gly His Pro Pro Trp Cys
        195                 200                 205
Leu Pro His Gly Pro Leu Gly Ser Pro Arg Gln Pro Leu Arg Asp Cys
    210                 215                 220
Ile Arg Asn Leu Arg Leu His Phe Pro Thr Leu Pro Ser Ser Gly Ala
225                 230                 235                 240
Arg Tyr Arg Arg Glu Tyr Glu Leu Cys Gly Ala Arg Pro Gly Gly Gly
                245                 250                 255
His Asp Leu Arg Leu Arg Gly Leu Gly Ser Ala Arg Thr Glu Glu Val
            260                 265                 270
Gly Gly Ser Asp Asp Cys His Ser Arg Gly Pro Thr Leu Val Leu
        275                 280                 285
```

<210> 37632
<211> 164
<212> PRT
<213> A.fumigatus

<400> 37632

```
His Gly Leu Ser Pro Val Thr Met Val Phe Arg Ser Pro Ile Phe Ser
1               5                   10                  15
Cys Thr Ser Thr Gly Ser Thr Arg Phe Pro Ser Val Leu Cys Ser Ser
            20                  25                  30
Ser Pro Pro Leu Ser Ser Ser Cys Arg Ser Ser Arg Ser Asp Pro Pro
        35                  40                  45
Leu Arg Ser Met Gln Ser Ser Pro Ser Ala Leu Ser Gly Leu Tyr Phe
    50                  55                  60
Ser Tyr Ile Ile Pro Leu Ile Leu Leu Val Ile Lys Arg Phe Arg Glu
65                  70                  75                  80
Pro Gln Asp Ile Pro Arg Gly Val Phe His Met Gly Arg Trp Gly Leu
                85                  90                  95
Pro Val Asn Leu Phe Ala Ile Ala Phe Ala Ile Tyr Val Ser Ile Phe
            100                 105                 110
Leu Pro Phe Pro Ala Gln Val Pro Val Thr Gly Glu Asn Met Asn Tyr
        115                 120                 125
Ala Gly Pro Val Leu Gly Ala Val Met Ile Phe Ala Cys Val Asp Trp
    130                 135                 140
Val Val Arg Gly Arg Arg Lys Trp Val Gly Pro Thr Ile Val Thr Gln
145                 150                 155                 160
Glu Asp Arg Arg
```

<210> 37633
<211> 102
<212> PRT
<213> A.fumigatus

<400> 37633

```
Met Ile Leu Ser Cys Ser Ala Phe Leu Lys His Ser Leu Pro Ser Phe
1               5                   10                  15
Ala Lys Ala Asn Pro Gln Ile Glu Ile Arg Val Ser Pro Arg Pro His
            20                  25                  30
Lys His Pro Val Ile Lys Gly His Tyr Ile Asn Gly Arg Glu Lys Ala
        35                  40                  45
Ile Cys Val Arg Asn Met Glu Pro Glu Gln Ile Leu Lys Lys Ala Asn
```

```
    50                  55                  60
Leu Leu Lys Glu Ala Ser Gly Glu Lys Leu Lys Arg Thr Lys Lys Pro
65                  70                  75                  80
Val Thr Ser Leu Asn Glu Ser Val Arg Gly Ile Trp Ser Pro Tyr His
                85                  90                  95
Gly Asp Leu Lys Met Val
            100
```

<210> 37634
<211> 63
<212> PRT
<213> A.fumigatus

<400> 37634

```
Thr Asp Gly Gln Glu Gly Tyr Pro Val Cys Lys Glu Gly Glu Val Leu
1               5                  10                  15
Asp Ser Arg Gln Thr Thr Leu Leu Lys Met Phe Gly Val Ala Thr Ala
            20                  25                  30
Glu Phe Lys Val Asp Leu Lys Ala Gln Trp Thr Arg Ser Thr Gly Glu
        35                  40                  45
Val Lys Ile Leu Glu Lys Asp Glu Gly Met Asp Val Asp Gly Gln
    50                  55                  60
```

<210> 37635
<211> 157
<212> PRT
<213> A.fumigatus

<400> 37635

```
Val Ala Leu Ser Arg Ser Asp Arg Leu Ala Val Ala Thr Ser Tyr Ala
1               5                  10                  15
Arg Gly Pro Gly Ile Ser Leu Ile Leu Ser Thr Thr Ser Ile Ala Ala
            20                  25                  30
Ser Lys Ala Thr Ile Pro Ala Thr Thr Gly Thr Arg Gly Ser Val Trp
        35                  40                  45
Trp Ser Leu Ser Thr Glu Ala Ile Ala Ser Ala Leu Ile Ala Asn Pro
    50                  55                  60
Ala Thr Arg Ala Lys Thr Ile Ala Thr Ala Ile Ser Ser Ser Lys Ala
65                  70                  75                  80
Ser Thr Ser Val Ser Ala Pro Glu Ser Ala Thr Lys Ser Ser Arg Ala
                85                  90                  95
Arg Arg Arg Thr Glu Arg Ser Arg Ser Gly Gly Thr Arg Gly Gln Ser
            100                 105                 110
Leu Ser Ile Ala Thr Ser Ser Gln Ala Ser Thr Glu Ala Ala Arg Leu
        115                 120                 125
Pro Ala Phe Asp Cys Ala Ala Thr Phe His Ile Tyr Gln Asn Thr Ser
    130                 135                 140
Ile Leu Asp Ser Asp Ser Ile Cys Leu Phe Val Gly Ser
145                 150                 155
```

<210> 37636
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37636

```
Glu Gly Gly Thr Asn Met Ser Thr Arg Phe Arg Tyr Pro Tyr Leu Leu
1               5                  10                  15
Leu Cys Leu Val Pro Tyr Ser Glu Phe Leu Ile Thr Ile Trp Ala His
            20                  25                  30
Asp Gln Ile Val Phe Pro Ser Ala Ser Arg Glu Ser Phe Gly Gly Arg
        35                  40                  45
Thr Trp Arg Phe Val Arg Ala Leu Ala Gly Ala Ser Thr
    50                  55                  60
```

<210> 37637
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37637

```
Ile Pro Glu Ile Arg Pro Tyr Glu Ala Pro Ile Ser Arg Trp Arg Cys
1               5                  10                  15
Trp His Trp Phe Trp Leu Ala His Cys Gly Ser Asp Lys Leu Asn Phe
            20                  25                  30
Arg Thr Thr Trp Cys Ile Tyr Pro Asn Tyr Ile Phe Trp Phe Phe Lys
        35                  40                  45
Ile Asp Asn Phe Gly His Tyr Val Ser Ser Lys Ser Trp
    50                  55                  60
```

<210> 37638
<211> 92
<212> PRT
<213> A.fumigatus

<400> 37638

```
Gln Thr Asn Phe Pro Leu Pro Ser Trp Arg Ser Ser Ser Leu Val Pro
1               5                  10                  15
Pro Leu Arg Tyr Val Pro Pro Val Asp Arg Ala Pro Asp Asp Ile Lys
            20                  25                  30
Lys Ser Ser Ile Gly Gly Val Ala Asp Phe Leu Gly Glu Leu Lys Lys
        35                  40                  45
Tyr Gly Glu Glu Val Pro Tyr Asn Ala Thr Glu Ser Trp Leu Gln Arg
    50                  55                  60
Lys Trp Arg Gln Lys Leu Glu Lys Lys Glu Arg Leu Asn Lys Gln Leu
65                  70                  75                  80
Thr Glu Gly Leu Gln Ser Cys Lys Gly Leu Asp His
                85                  90
```

<210> 37639
<211> 83
<212> PRT
<213> A.fumigatus

<400> 37639

```
Leu Val Ala Thr Ala Ser Leu Ser Asp Leu Glu Arg Ala Thr Gln Ser
1               5                  10                  15
Glu Thr Asp Val Ile Met Ile Val Ile Gly Lys Val Thr Ala Thr Glu
            20                  25                  30
Thr Val Ile Gly Ile Ala Thr Val Thr Val Ile Ala Thr Ala Asn Val
        35                  40                  45
Arg Asp Met Val Ala Glu Arg Thr Met Ala Ala Ser Asp Ile Thr Lys
```

```
    50                  55                  60
Thr Ile His Met Arg Ile Leu Ala Leu Lys Gly Gly Thr Lys Pro Pro
65                  70                  75                  80
Leu Leu Asp
```

<210> 37640
<211> 358
<212> PRT
<213> A.fumigatus

<400> 37640

```
Arg Pro His His Gln Met Ser Asp Pro Ser Arg Ser Gln His Gln Ser
1               5                  10                  15
Arg Trp Arg Ser Asp Pro Glu Pro Ser Ser Ser Gln Gly Leu Asn Ser
            20                  25                  30
Pro His Ser Arg Pro Thr Leu Pro Pro Met Arg Tyr Pro Gly Asp Gly
        35                  40                  45
Tyr Asp Phe Arg Arg Pro Ile Met Ser Asp Pro Pro Gln Arg Glu Asp
    50                  55                  60
Val Ile Asp Leu Thr Asn Glu Pro Asp Phe Leu Glu Glu Gln Arg Arg
65                  70                  75                  80
Pro Gln Asn Ser Asp Ser Arg Thr Thr Pro Arg Leu Pro Arg Phe Gly
                85                  90                  95
Arg Asn Ile Met Ala Glu Val Val Asp Leu Glu Glu Pro Glu Asp Ile
            100                 105                 110
Ile Arg Ile Asp Thr Pro Ser Ser Pro Glu Val Gln Phe Val Arg Ala
        115                 120                 125
Thr Val Arg Gln Pro Glu Pro Val Pro Ala Pro Pro Pro Arg Asn Arg
    130                 135                 140
Gly Phe Ile Gly Ala Asn Leu Trp Asp Leu Ile Arg Leu Gln Arg Glu
145                 150                 155                 160
Met Ala Pro Arg His Leu Ile Ser Arg Glu Glu Ser Phe Arg Gln Glu
                165                 170                 175
Ile Ala Trp Arg Ala Arg Asp Leu His Arg Arg Pro Pro Asp Glu Val
            180                 185                 190
Asp Met Phe Leu Leu Gly Ala Ala Glu Glu Ala Ile Asp Leu Glu Asp
        195                 200                 205
Ala Met Asp Leu Ala Ile Val Gly Asp Arg Pro Leu Arg Ala Glu Tyr
    210                 215                 220
Pro Thr Tyr Gly Leu Thr Ser Gly Arg Gly Ser Arg Gln Ser Ser Tyr
225                 230                 235                 240
Lys Ala Pro Ser Pro Pro Ser Glu Gly Phe Thr Arg Ser Ala Gly Glu
                245                 250                 255
Asp Asp Leu Val Val Cys Pro Asn Cys Asp Glu Glu Leu Gly Ile Gly
            260                 265                 270
Asp Glu Thr Lys Gln Gln Ile Trp Val Ala Lys Pro Cys Gly His Val
        275                 280                 285
Arg Ala Thr Phe Leu His Asp Val Gly Ala Leu Leu Thr Phe Ser Arg
    290                 295                 300
Tyr Thr Val Ala Asn Val Pro Gly Ile Val Leu Phe Pro Arg Pro Arg
305                 310                 315                 320
Arg Leu Pro Arg Glu Pro Asn Arg Phe Leu Asn Val Lys Ser Leu Ile
                325                 330                 335
Val Val Asn Pro Ser Val His Pro Asp Gln Cys Ser Arg Tyr Thr Phe
            340                 345                 350
```

Asp His Leu Tyr Ser Ala
355

<210> 37641
<211> 228
<212> PRT
<213> A.fumigatus

<400> 37641
Pro Asp His Pro Cys Pro Asp Ser Ala Ala Tyr Lys Glu Thr Asp Gly
1 5 10 15
Ile Arg Ile Lys Asp Arg Arg Val Leu Val Asp Val Glu Arg Gly Arg
20 25 30
Thr Val Lys Gly Trp Lys Pro Arg Arg Phe Gly Gly Gly Leu Gly Gly
35 40 45
Arg Gly Tyr Thr Lys Ala Leu Pro Ser Arg Pro Thr Gly Pro Gly Ser
50 55 60
Phe Gly Ala Pro Ser Gly Pro Gly Gly Phe Gly Gly Gly Phe Arg Gly
65 70 75 80
Gly Tyr Gly Gly Arg Gly Phe Arg Gly Gly Tyr Arg Gly Gly Asp Arg
85 90 95
Phe Gly Pro Arg Gly Gly Ile Gly Tyr Gln Gly Gly Arg Asn Gly Phe
100 105 110
Gly Gly Gln Ala Pro Pro Asn Ala Pro Ser Gly Pro Gly Gly Gly Arg
115 120 125
Asn Gly Gly Phe Gly Gly Gly Tyr Ala Gly Gly Gly Lys Tyr Glu Arg
130 135 140
Asp Ala Arg Ala Pro Gly Val Thr Gly Ser Asn Arg Glu Pro Ile Arg
145 150 155 160
Pro Arg Glu Gly Tyr Ser Glu Arg Asp Arg Arg Asp His Asp Arg Asp
165 170 175
Arg Glu Ser Asp Arg His Arg Asp Arg Asp Arg Asp Arg Tyr Arg Asp
180 185 190
Arg Asp Arg Asp Arg Glu Arg Glu Arg Tyr Gly Gly Arg Glu Asp Tyr
195 200 205
Gly Arg Lys Arg Tyr His Glu Asp Asp Ser Tyr Glu Asp Pro Arg Ala
210 215 220
Lys Arg Arg Tyr
225

<210> 37642
<211> 106
<212> PRT
<213> A.fumigatus

<400> 37642
His Cys Tyr Ser Val Tyr Gly Ala Gly Leu Asn Thr Ala Ala Lys Ala
1 5 10 15
Lys Gly Leu Lys Tyr Phe Gly Ser Ala Thr Asp Asn Pro Glu Leu Thr
20 25 30
Asp Ser Ala Tyr Val Ala Gln Leu Ser Asn Thr Asp Asp Phe Gly Gln
35 40 45
Ile Thr Pro Gly Asn Ser Met Lys Val Cys Leu Arg Leu Pro Pro Trp
50 55 60
Ser Ile Ala Ser Lys Ala Asn Trp Leu Phe Cys Leu Asp Ser Gly Met
65 70 75 80

```
Pro Pro Ser Leu Leu Arg Ile Leu Phe Arg Ser Gln Met Glu Thr Pro
                85                  90                  95
Trp Ser Ile Trp Arg Thr Arg Met Ala Ser
            100                 105
```

<210> 37643
<211> 267
<212> PRT
<213> A.fumigatus

<400> 37643

```
Arg Phe Val Ala Pro Ser Ile Leu Asn Ser Ser Phe Glu Thr Asp Lys
1               5                   10                  15
Pro Val Asn Leu Ala Leu Asn Glu Asp Gly Thr Phe Arg Asn Ser Val
            20                  25                  30
Phe Tyr Gln Ile Ile Gly Pro Ala Tyr Ile Pro Ile Ala Phe Ala Thr
        35                  40                  45
Ala Ala Ala Ala Asp Pro Asp Val Lys Leu Tyr Tyr Asn Asp Tyr Asn
    50                  55                  60
Ile Glu Tyr Ser Gly Ala Lys Ala Thr Ala Ala Gln Asn Ile Val Lys
65                  70                  75                  80
Met Ile Lys Ala Tyr Gly Ala Lys Ile Asp Gly Val Gly Leu Gln Ala
                85                  90                  95
His Phe Ile Val Gly Ser Thr Pro Ser Gln Ser Asp Leu Thr Thr Val
            100                 105                 110
Leu Lys Gly Tyr Thr Ala Leu Gly Val Glu Val Ala Tyr Thr Glu Leu
        115                 120                 125
Asp Ile Arg Met Gln Leu Pro Leu Thr Ala Ala Lys Leu Ala Gln Gln
    130                 135                 140
Ser Thr Asp Phe Gln Gly Val Ala Ala Ala Cys Val Ser Thr Thr Gly
145                 150                 155                 160
Cys Val Gly Val Thr Ile Trp Asp Trp Thr Asp Lys Tyr Ser Trp Val
                165                 170                 175
Pro Ser Val Phe Gln Gly Tyr Gly Ala Pro Leu Pro Trp Asp Glu Asn
            180                 185                 190
Tyr Val Lys Lys Pro Val Tyr Asp Gly Leu Met Ala Gly Leu Gly Ala
        195                 200                 205
Ser Gly Ser Gly Thr Thr Thr Thr Thr Thr Thr Thr Ser Ser Thr Thr
    210                 215                 220
Gly Gly Thr Asp Pro Thr Gly Val Ala Gln Lys Trp Gly Gln Cys Gly
225                 230                 235                 240
Gly Ile Gly Trp Thr Gly Pro Thr Thr Cys Val Ser Gly Thr Thr Cys
                245                 250                 255
Gln Lys Leu Asn Asp Trp Tyr Ser Gln Cys Leu
            260                 265
```

<210> 37644
<211> 60
<212> PRT
<213> A.fumigatus

<400> 37644

```
Gln Leu Thr Val Ser Ser Gly Ser Trp Thr Asn Ala Thr Leu Leu Ala
1               5                   10                  15
Ala Met Lys Asn His Ile Thr Asn Val Val Thr His Tyr Lys Gly Lys
            20                  25                  30
```

```
Cys Tyr Ala Trp Asp Val Val Asn Glu Gly Leu Leu Leu His Leu Ser
        35                  40                  45
Ser Ile Val Leu Leu Lys Leu Thr Ser Leu Ser Ile
    50                  55                  60
```

<210> 37645
<211> 167
<212> PRT
<213> A.fumigatus

<400> 37645

```
Arg Pro Arg Val Asp Ser Thr Tyr Ala Leu Ser Leu Thr Arg Gly Arg
1               5                   10                  15
Ser Pro Leu Ser Pro Gln Ser Leu Gly Thr Gly Glu Val Asn Asp Ser
            20                  25                  30
Thr Asp Gln Asp Asp Val Lys Ala Leu Glu Gln Lys Gly Thr Ala Glu
        35                  40                  45
Gln Val Ala Thr Asp Asn Gly Ser Gln Ala Lys Arg Arg Lys Val Ser
    50                  55                  60
His Glu Cys Val Val Pro Leu Asn Ile Thr Cys His Leu Lys Ala Thr
65                  70                  75                  80
Leu Pro Leu Arg Asp Arg Arg Leu Leu Arg Arg Tyr Tyr Gln Lys Ala
                85                  90                  95
Phe Glu Ser Leu Gln Gln Ile Asn Cys Arg Ile Ile Ala Lys Ala Tyr
            100                 105                 110
Val Lys Leu Val Glu Pro Arg Lys Gln Val Asn Tyr Pro Tyr Asn Gly
        115                 120                 125
Arg Lys Val Ile Ala Gly Ile Ser Arg Gln Leu Asp Pro Glu Met Thr
    130                 135                 140
Lys Pro Ala Trp Trp Pro His Gly Val Thr His Arg Glu Pro Asp His
145                 150                 155                 160
Leu Pro Lys Val Gly Lys Ile
                165
```

<210> 37646
<211> 867
<212> PRT
<213> A.fumigatus

<400> 37646

```
Phe Phe Arg Glu Leu Cys Lys Gly Tyr Ile Leu Leu Cys Lys Val Ser
1               5                   10                  15
Trp Arg Phe Ile Ala Gln His Leu Ser Leu Arg Ala Leu Gln Val Leu
            20                  25                  30
Ser Arg Ile Ile Ser Arg Thr Lys Gly Tyr Arg Cys His Leu Thr Thr
        35                  40                  45
Leu Leu Gly Leu Ala Leu Pro Gly Ile Asp Ala Asn Asp Leu Glu Lys
    50                  55                  60
Thr Leu His Ala Leu Ser Phe Ile Gln Ser Ala Cys Tyr Asn Ile Pro
65                  70                  75                  80
Leu Phe Asp Leu Thr Lys Gly Arg Glu Asp Ile Asn Cys Asp Met Leu
                85                  90                  95
Ala Met Gln Trp Ile Asn Gly Glu Met Gly Arg Met Glu Ala Glu Gly
            100                 105                 110
Ala Glu Val Gln Leu Asn Tyr Asp Thr Asp Leu Ser Asp Glu Asn Glu
        115                 120                 125
```

```
Glu Met Ile Leu Arg Ser Ser Thr Cys Gly Phe Gly Asp Phe Ile Val
    130                 135                 140
Ser Phe Leu Gly Arg Val Phe Thr Leu Leu Glu Asn Leu Pro Asp Ala
145                 150                 155                 160
Ser Arg Val Arg Asn Gly Ser Pro Glu Glu Asn Ile Val Asn Thr Leu
                165                 170                 175
Pro Ala Thr Phe Met Pro Leu Leu Ser Ser Leu Ser Pro Glu Tyr Phe
            180                 185                 190
Asp Thr Ala Leu Ser Lys Val Val Asp Phe Val Ser Asn His Val Ile
        195                 200                 205
His Gln Ala Arg Asp Ala Met Ala Phe Ile Cys Asn Ser Ile Cys Lys
    210                 215                 220
Val Asn Pro Asp Lys Ala Leu Lys Arg Phe Ile Pro Val Leu Thr Gln
225                 230                 235                 240
Ala Ile Arg Thr Glu Ile Asp Asp Asn Gly Ala Gly Ser Thr Arg Thr
                245                 250                 255
Thr Gly Thr Asp Val Leu Pro Arg Asp Arg Ala Leu Val Trp Asn Ile
            260                 265                 270
Ser Met Leu Ser Met Cys Val Val His Val Gly Asp Ala Val Leu Ala
        275                 280                 285
His Arg Lys Glu Leu Phe Asp Ile Ala Val Tyr Met Gln Gln Lys Cys
    290                 295                 300
Arg Gly Ile Pro Thr Val His Ile Ser Asn Phe Ile His His Leu Leu
305                 310                 315                 320
Leu Asn Leu Thr Gly Thr Tyr Thr Ile Asp Tyr Ser Leu Tyr Glu Pro
                325                 330                 335
Glu Val Leu Ala Glu Gly Ile Thr Pro Lys Leu Trp Ser Tyr Gln Pro
            340                 345                 350
Asp Pro Asp Asn Leu Thr Val Lys Trp His Val Pro Lys Arg Glu Glu
        355                 360                 365
Leu Glu Phe Ala Val Glu Leu Phe Gln Asp Gln Ala Glu Thr Ala Leu
    370                 375                 380
Arg Ser Leu Thr Ala Leu Thr Asn Gly Thr Ala Ser Val Lys Arg Asp
385                 390                 395                 400
Gly Ser Gly Lys Asp Trp Ser Asp Glu Val Ser Arg Asn Leu Val Leu
                405                 410                 415
Leu Arg Leu Ile Leu Ser Gly Ile Ser Val Leu Phe Asp Ser Lys Ala
            420                 425                 430
Ala Ser Lys Thr Lys Asp Glu Gly Val Asp Gly Ile Ala Asn Asp Val
        435                 440                 445
Glu Met Ser Asp Ala Lys Asp Phe Pro Val Ala Asn Gly Val Gly Asp
    450                 455                 460
Glu Asp Pro Asp Ala Ser Leu Asp Thr Ser Asp Glu Ala Thr Val Arg
465                 470                 475                 480
Pro Ser Phe His Tyr Pro Thr Gly Tyr Pro Leu Glu Glu Asn Asp Pro
                485                 490                 495
Leu Tyr Arg Cys Ile His Asp Leu Arg Glu Arg Ala Gly Trp Val Leu
            500                 505                 510
His Asp Val His Arg Phe Leu Ser Asp Lys Gln Glu Asp Asp Val Pro
        515                 520                 525
Cys Phe Ala Ala Leu Tyr Ser Ala Phe Arg Ser Trp Phe Ile Asp Val
    530                 535                 540
Gly Met Glu Arg Ser Ala His Val Leu Asp Arg Val Thr Arg Leu Leu
545                 550                 555                 560
Ala Ala Asp Ile His Pro Tyr Lys Met Ser Gly Ile Arg Lys Asp Tyr
                565                 570                 575
```

```
Pro Arg Pro Leu Leu Val Arg Arg Ala Asn Val Tyr His Leu Gln Arg
            580                 585                 590
Leu Arg His Asn Ala Ala Pro Arg Pro Arg Ser Arg Leu Asp Glu Ile
        595                 600                 605
Leu Leu Leu Asp Leu Ala Glu Ser Cys Val Ser Leu Tyr Thr Glu Thr
    610                 615                 620
Arg Arg Asn Ala Gln Ser Ala Gly Glu Ser Ala Leu Lys Ala Ile Trp
625                 630                 635                 640
Gly Ser Arg Leu Leu Val Ile Pro Pro Leu Leu Thr Ala Leu Gln Lys
                645                 650                 655
Gly Ile Lys Glu Asn Asp His Ala Arg Ile Lys Gly Ala Leu Phe Ser
            660                 665                 670
Leu Leu Leu Ser Ser Val Ala Lys Thr Val Gly Arg His Trp Lys Tyr
        675                 680                 685
Ala Pro Thr Leu Ile Arg Thr Phe Ile Asp Ala Ser Ala Val Asp Lys
    690                 695                 700
Pro Ser Val Gln Lys Ile Cys Ser Ser Ala Val Phe Gln Ile Met Asp
705                 710                 715                 720
Tyr Gly Arg Ala Met Glu Arg Met Ala Val Leu Asp Arg Asp Ile Val
                725                 730                 735
Glu Ala Ile Ala Pro Lys Glu Asp Val Gln Asp Gln Ile Thr Gln Lys
            740                 745                 750
Arg Lys Ser Ile Asn Asn Lys Arg Ala Ile Ile Glu Lys Lys Lys Ala
        755                 760                 765
Asp Met Ala Glu Glu Leu Val Asn Leu Ala Arg Val Ser His Trp Lys
    770                 775                 780
Val Ala Ser Arg Ala Ala Thr Ile Val Ile Thr Met Gly Leu Arg Phe
785                 790                 795                 800
Asp Tyr Ile Ala Ser Ser Asn Leu Ile Glu Leu Val Thr Leu Gly Ser
                805                 810                 815
Val Asp Asp His Pro Gly Leu Arg Gly Met Tyr Ser Gln Ala Leu Ile
            820                 825                 830
Ala Leu Phe Thr Met Ile Asp Val Arg Ala Ile Cys Gly His Asp Tyr
        835                 840                 845
Lys Asn Tyr Val Phe Thr Thr Gly Leu Glu Gly Ser Ala Ala Gly Ala
    850                 855                 860
Asn Ser Asn
865
```

<210> 37647
<211> 156
<212> PRT
<213> A.fumigatus

<400> 37647

```
Pro Leu Arg Arg Ser Asn Cys Arg Thr Pro Tyr Ala Thr Met Asp Thr
1               5                   10                  15
Ala Gly Pro Lys Ala Ile Leu Thr Gln Asn Val Tyr Pro Pro His Glu
            20                  25                  30
Ile Ser Arg Ala Thr Ser Pro Gly Gly Glu Pro Ala Gly Val Asn Gly
        35                  40                  45
Glu Gly Glu Pro Lys Ala Arg Val Arg Pro Arg Thr Tyr Pro Tyr Phe
    50                  55                  60
Lys Tyr Leu Pro Tyr Pro Ile Glu Asp Glu Ala Glu Arg Glu Arg Asn
65                  70                  75                  80
Leu Arg Glu Ile Leu Asn Gln Leu Tyr Ile Ala Val Glu Ala Gly Asp
```

```
                85                  90                  95
Phe Ser Pro Gly Ala Val His Trp Thr Arg Glu Leu Arg Gly Trp Leu
            100                 105                 110
Ser Leu Lys Phe Asp Pro Thr Arg Thr Glu Arg Ile Asn Leu Val Lys
        115                 120                 125
Leu Tyr Tyr Glu Leu Ser Leu Ala Pro Gly Ile Asp Pro Asn Val Ala
    130                 135                 140
Glu Arg Phe Ala Ser Met Phe Met Leu Leu Thr Lys
145                 150                 155
```

<210> 37648
<211> 505
<212> PRT
<213> A.fumigatus

<400> 37648

```
Ile Ser Ser Thr Ser Pro Leu Lys Leu Gly Ile Ser Val Pro Ala Arg
1               5                   10                  15
Ser Thr Gly Leu Glu Ser Leu Gly Val Gly Cys His Ser Ser Ser Thr
            20                  25                  30
Pro Leu Val Gln Ser Gly Ser Thr Trp Ser Ser Tyr Thr Met Ser Ser
        35                  40                  45
His Trp Pro Leu Gly Leu Ile Gln Met Leu Arg Asn Ala Ser Leu Ala
    50                  55                  60
Cys Ser Cys Tyr Leu Gln Ser Glu Gln Ala Asp Ser Leu Leu Met Leu
65                  70                  75                  80
Leu Ser Trp Val Arg Arg Ala Asp Thr Ile Cys Arg Arg Lys His Tyr
                85                  90                  95
Leu Arg Pro Val Lys Asp Leu Ile Leu Asp Trp Arg Pro Leu Tyr Lys
            100                 105                 110
Glu Leu Lys Ala Phe Val Leu Pro Thr Glu Ser Gly Leu Val His Ser
        115                 120                 125
Thr Asn Leu Lys Arg Asn Val Lys Thr Leu Thr Lys Leu Cys Ala Phe
    130                 135                 140
Val Gln Leu Tyr Ile Asp Pro Cys Glu Leu Pro Ala Met Leu Asp Glu
145                 150                 155                 160
Phe Leu Pro His Phe Ser Thr Ser Phe Ser Glu Gly Ala Phe Val Val
                165                 170                 175
Val Gly Leu Ile Asn Leu Leu Leu Pro Thr Ser Pro Pro Pro Gln Ser
            180                 185                 190
Arg Glu Asp Leu Leu Pro Gln His Tyr Leu Pro Thr Tyr Phe His Leu
        195                 200                 205
Trp Ser Leu Val Asn Arg Ser Lys Thr Phe Asp Met Thr Phe Leu Asp
    210                 215                 220
Tyr Leu Ser Arg Leu Ala Arg Asp Ser Leu Pro Ala Glu His Ile Pro
225                 230                 235                 240
Phe Ser Glu Tyr Gly Leu Phe Thr Lys Glu Gln Ser Ala Leu Ile Phe
                245                 250                 255
Thr Ala Ile Leu Arg Leu Leu Glu Ile Pro Val Gly Gln Ser Thr Ser
            260                 265                 270
Pro Tyr Ser Ala Leu Val Asp Ile Ser Ser Gly Leu Gly Ile Met Leu
        275                 280                 285
Asp Arg Asp Ala Arg Lys Tyr Pro Val Ala His His Ile Ala Arg Trp
    290                 295                 300
Val Val Met Ser Leu Ala Pro Glu Cys Ala Asp Ala Glu Asp Ser Ile
305                 310                 315                 320
```

```
Leu Thr Gln Leu Glu Gly Leu Ile Gln Ala Val Glu Thr Phe Phe His
                325                 330                 335
Pro Ser Asn Ser Gly Gly Trp Thr Lys Thr Leu Ser Gln Leu Val Tyr
            340                 345                 350
Tyr Leu Ser Asp Phe Phe Leu Met Arg Trp Asn Arg Glu Gln Ser Gly
        355                 360                 365
Glu Met Glu Val Pro Ile Gly Arg Arg Leu Thr Glu Pro Leu Lys Arg
    370                 375                 380
Arg Phe Val Leu Cys Leu Arg Asp Val Val Phe Met Gly Ile Tyr Ala
385                 390                 395                 400
Lys Ser Gly Thr Ala Ile Ser Phe Ser Leu Ser Thr Leu Gln Asn Leu
                405                 410                 415
Ala Phe Leu Glu Pro His Leu Ile Leu Pro Gly Ala Leu Gln Arg Ile
            420                 425                 430
Tyr Pro Ser Leu Gln Gly Leu Val Glu Val His Arg Thr Ala Ser Phe
        435                 440                 445
Ser Pro Arg Pro Ser Ser Leu Val Ser Asn His Phe Ala Asp Glu Arg
    450                 455                 460
Leu Pro Leu Pro Ser Asp Asn Pro Ala Trp Ala Arg Ser Thr Arg His
465                 470                 475                 480
Arg Cys Gln Arg Leu Gly Glu Asp Ser Ser Cys Ser Val Phe His Ser
                485                 490                 495
Ile Ser Val Leu Gln His Pro Leu Ile
            500                 505
```

<210> 37649
<211> 618
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (15)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37649

```
Arg Cys Phe Ser Cys Ser Lys Lys Lys Pro Ser Pro Arg Met Xaa Ala
1               5                   10                  15
Ser Arg Ile Ala Ser Thr Arg Gly Ser Arg Lys Thr Trp Asp Gln Arg
            20                  25                  30
Asn Leu Arg Ile Pro Tyr Glu Lys Lys Pro Trp Pro Arg Arg Pro Gly
        35                  40                  45
Arg Lys Arg Ile Ala Met Val Asn Asn Phe Ser Ala Ala Gly Gly Asn
    50                  55                  60
Ser Thr Leu Ala Ile Glu Glu Gly Pro Leu Arg Pro Lys Pro Ala Gly
65                  70                  75                  80
Ala Ile Asp Pro Arg Ser Ser His Leu Val Thr Val Ser Ala Lys Ser
                85                  90                  95
Lys Ile Ser Leu Lys Glu Asn Leu Glu Arg Leu Leu Gly Phe Leu Asp
            100                 105                 110
Ala His Pro Asp Val Ala Leu Ser Asp Leu Ala Tyr Thr Thr Thr Ala
        115                 120                 125
Arg Arg His His His Asn His Arg Val Ala Val Ala Thr Ser Asp Ile
    130                 135                 140
Ala Asp Leu Lys Ala Gln Leu Cys Lys Thr Leu Glu Ser Asp Ala Val
145                 150                 155                 160
```

```
Asn Thr Leu Gln Pro Ile Ser Ala Thr Gly Pro Pro Pro Ile Ala Phe
                165                 170                 175
Ala Phe Thr Gly Gln Gly Ser Ser Tyr Lys Ser Trp Asp Leu Gln Leu
            180                 185                 190
Phe Gln His Ser Pro Tyr Phe Arg Ser Gln Ile Leu His Leu Asp Thr
        195                 200                 205
Leu Ala Gln Gly Gln Gly Phe Pro Ser Phe Val Pro Ala Ile Asp Gly
    210                 215                 220
Ser Tyr Pro Arg Asp His Ala His Cys Pro Val Ile Thr Gln Leu Ala
225                 230                 235                 240
Leu Val Cys Thr Glu Ile Ala Leu Ala Lys Tyr Trp Val Ser Leu Gly
                245                 250                 255
Val Thr Pro Asp Val Val Val Gly His Ser Leu Gly Glu Tyr Ala Ala
            260                 265                 270
Leu His Ile Ala Gly Val Leu Ser Ala Ser Asp Ala Ile Phe Leu Val
        275                 280                 285
Gly Gln Arg Ala Cys Leu Leu Gln Glu Arg Cys Gln Pro Ser Ser His
    290                 295                 300
Gln Met Met Ala Val Arg Ala Ser Leu Glu Gln Ile Glu Gln Phe Ala
305                 310                 315                 320
Gly Ser Leu Pro Tyr Glu Ile Ala Cys Val Asn Gly Pro Arg Glu Met
                325                 330                 335
Val Leu Ser Gly Thr Arg Glu Glu Met Ala Ala Val Ala Arg Leu Leu
            340                 345                 350
Glu Ala Glu Gly Phe Lys Cys Ile Val Leu Glu Val Ala Phe Ala Phe
        355                 360                 365
His Ser Ala Gln Met Asp Pro Ile Leu Asp Glu Phe Glu Ala Leu Ala
    370                 375                 380
Ala Ser Gly Val Val Phe Gln Ala Pro Asn Leu Pro Val Ile Ser Pro
385                 390                 395                 400
Leu Leu Ser Lys Val Val Phe Asp Glu His Thr Ile Asp Ser Val Tyr
                405                 410                 415
Met Arg Arg Ala Thr Arg Glu Thr Val His Phe Leu Ser Ala Met Lys
            420                 425                 430
Met Ala His Lys Ile Ser Thr Ile Asp Asp Ala Thr Val Trp Val Asp
        435                 440                 445
Ile Gly Pro His Pro Val Cys Val Asn Phe Val Arg Ser Ser Leu Pro
    450                 455                 460
Ser Thr Ser Val Thr Val Pro Ser Phe Arg Arg Gly Glu Asp Asn Trp
465                 470                 475                 480
Val Thr Leu Thr Ser Ser Leu Gly Val Leu His Cys Ala Gly Val Pro
                485                 490                 495
Val Asp Trp Asn Glu Phe His Gln Pro Phe Glu Arg Ala Leu Arg Leu
            500                 505                 510
Leu Asp Leu Pro Thr Tyr Ser Trp Asn Glu Lys Thr Tyr Trp Ile Gln
        515                 520                 525
Tyr Gln Gly Asn Trp Ala Leu Thr Lys Gly Asn Thr Phe Tyr Asp Asp
    530                 535                 540
Glu Ala Pro Gln Thr Lys Ala Leu Ala Gly Leu Ala Ser Glu Leu Arg
545                 550                 555                 560
Thr Ser Thr Val Gln Gln Ile Ile His Glu Gln Tyr Asp Gly Ala Ala
                565                 570                 575
Gly Ser Val Val Met Gln Ser Asp Leu Met Gln Pro Asp Phe Leu Ala
            580                 585                 590
Ala Ala Tyr Gly His Lys Met Asn Gly Arg Gly Val Val Thr Ser Val
        595                 600                 605
```

Ser Ala Leu Ser Leu Cys Ile Pro His Asp
610 615

<210> 37650
<211> 175
<212> PRT
<213> A.fumigatus

<400> 37650
Ser Ile His Ala Asp Ile Ala Phe Thr Leu Gly Glu Tyr Leu Tyr Lys
1 5 10 15
Lys Leu Asn Pro Asn Gln Glu Pro His Met Asn Ile Ala Asn Leu Glu
20 25 30
Val Val Lys Ala Leu Val Ala Gln Glu Asn Thr Lys Ser Pro Gln Leu
35 40 45
Ile Gln Val Ser Ala Ser Thr Asp Asn Ile Arg Ser Arg Gln Ala His
50 55 60
Leu Lys Trp His Asn Val Ile Ser Gly Ser Ile Glu Glu Pro Phe Ala
65 70 75 80
Ser Ala Thr Val Tyr Tyr Glu Glu Ala Ser Asp Trp Leu Ala Ser Trp
85 90 95
Arg Pro Ala Thr His Leu Val Gln Gly Arg Ile His Ala Leu Glu Gln
100 105 110
Leu Ala Glu Asp Gly Val Ala Asn Arg Phe Thr Arg Arg Met Ala Tyr
115 120 125
Gly Leu Phe Ala Ser Ser Leu Val Asp Tyr Ala Asp Lys Tyr Arg Gly
130 135 140
Met Gln Ser Val Val Leu His Glu Leu Glu Ala Phe Ala Asp Val Val
145 150 155 160
Leu Thr Thr Glu Lys Gly Gly Thr Trp Thr Val Pro Pro Tyr Phe
165 170 175

<210> 37651
<211> 358
<212> PRT
<213> A.fumigatus

<400> 37651
Pro Ser Gly Gly Pro Pro Val Arg Ile Arg Ala Leu Phe Arg Lys Phe
1 5 10 15
Asp Ile Phe Arg Gly Arg His Phe Gly Cys Ala Ser Arg Val Arg Gly
20 25 30
Ala Val Ser Cys Lys Asn Ile Asn Asn Ser Arg His Ala Arg Ser Val
35 40 45
Val Pro Gly Pro Ser Ile Ala Ala Leu Asp Thr Arg Phe Ile Ala Arg
50 55 60
Tyr Pro Ile Leu Ser Thr Gly Ser Gly Glu Pro Phe Pro Thr Ala Thr
65 70 75 80
Thr Ala Thr Glu Leu Phe Glu His Val Met Thr Glu Ile Leu Thr Gln
85 90 95
Ala Ile Glu Trp Glu Asn Val Ile Gln Gly Val Val Glu Arg Ala Lys
100 105 110
Leu Leu Ser Val Ser Glu Val Gln Val Gln Val Phe Arg Asn Ser His
115 120 125
Pro Val His Asp Leu Leu Ser Ala Leu Glu Thr Ser Leu Arg Glu Gly
130 135 140

```
Val Glu Val Ala Ile Lys Asp Leu Gly Pro Trp Ile Thr Arg Thr Arg
145                 150                 155                 160
Asp Glu Glu Arg Pro Pro Pro Arg Gly Thr Ala Gln Ser Lys Ile Ala
                165                 170                 175
Ile Val Gly Met Ser Cys Arg Met Pro Ser Gly Ala Thr Asp Thr Glu
            180                 185                 190
Lys Phe Trp Asp Ile Leu Glu Gln Gly Leu Asp Val His Arg Lys Ile
        195                 200                 205
Pro Pro Asp Arg Phe Asp Val Asp Ser His Tyr Asp Pro Ala Gly Lys
    210                 215                 220
Arg Val Asn Ala Ser His Thr Pro Tyr Gly Cys Phe Ile Asp Glu Pro
225                 230                 235                 240
Gly Leu Phe Asp Ala Pro Phe Phe Asn Met Ser Pro Arg Glu Ala Gln
                245                 250                 255
Gln Thr Asp Pro Met Gln Arg Leu Ala Ile Val Thr Ala Tyr Glu Ala
            260                 265                 270
Leu Glu Arg Ala Gly Tyr Val Ala Asn Arg Thr Arg Ser Ser Asn Lys
        275                 280                 285
His Arg Met Gly Thr Phe Tyr Gly Gln Ala Ser Asp Asp Tyr Arg Glu
    290                 295                 300
Val Asn Ser Ala Gln Glu Ile Ser Thr Tyr Phe Ile Pro Gly Gly Cys
305                 310                 315                 320
Arg Ala Phe Gly Pro Gly Arg Ile Asn Tyr Phe Phe Lys Leu Trp Gly
                325                 330                 335
Pro Ser Phe Ser Ile Asp Thr Ala Cys Ser Ser Ser Leu Ala Thr Ile
            340                 345                 350
Gln Val Cys Arg Thr Ser
        355
```

<210> 37652
<211> 220
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (198)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37652

```
Ala Ala Cys Thr Ala Leu Trp Asn Gly Asp Thr Asp Thr Val Val Ala
1               5                   10                  15
Gly Gly Met Asn Val Leu Thr Asn Ser Asp Ala Phe Ala Gly Leu Ser
            20                  25                  30
His Gly His Phe Leu Thr Lys Thr Pro Asn Ala Cys Lys Thr Trp Asp
        35                  40                  45
Cys Glu Ala Asp Gly Tyr Cys Arg Ala Asp Gly Val Ala Ser Ile Val
    50                  55                  60
Met Lys Arg Leu Glu Asp Ala Glu Ala Asp Asn Asp Asn Ile Leu Gly
65                  70                  75                  80
Val Ile Leu Gly Ala Ala Thr Asn His Ser Ala Glu Ala Ile Ser Ile
                85                  90                  95
Thr His Pro His Ala Gly Ala Gln Ser Cys Leu Ser Arg Gln Val Leu
            100                 105                 110
Arg Ser Ala Gly Ile Asp Pro Met Asp Val Ser Tyr Val Glu Met His
        115                 120                 125
```

```
Gly Thr Gly Thr Gln Ala Gly Asp Ala Glu Glu Ile Lys Ser Val Ser
    130                 135                 140
Asp Val Phe Ala Pro Ala Val Lys Arg Arg Ser Ser Gln Gln Pro Val
145                 150                 155                 160
Phe Ile Gly Ala Val Lys Ala Asn Val Gly His Gly Glu Ala Val Ala
                165                 170                 175
Gly Val Thr Ala Leu Val Lys Val Leu Leu Met Phe Gln Lys Glu Ala
            180                 185                 190
Ile Pro Pro His Val Xaa Ile Lys Asn Ser Ile Asn Pro Gly Phe Pro
        195                 200                 205
Lys Asp Leu Gly Ser Ala Lys Phe Ala Tyr Ser Leu
    210                 215                 220
```

<210> 37653
<211> 876
<212> PRT
<213> A.fumigatus

<400> 37653

```
Cys Val Lys Thr Gly Glu Val Ala Asp Gln Asp Gln Ser Ser His Met
1               5                   10                  15
Glu Asn Gly Glu Ser Ala Asn His Ile Pro Glu Glu Asp Val Asp Ile
            20                  25                  30
Ala Asn Thr Thr Glu Ser Ala Ala Pro Lys Thr Leu Arg Lys Asp Gln
        35                  40                  45
Asp Ala Ser Ser Ile Leu Glu His Val Asp Asp Gln Ser Ser Ile Asp
    50                  55                  60
Gln Arg Ala Glu Lys Gln Leu Met Glu Ser Leu Glu Asn Gln Ser Ala
65                  70                  75                  80
Arg Gln Asn Asp Ala Thr Thr Val Gln Asp Val Pro Asn Val Asp Glu
                85                  90                  95
Val Glu Pro Asn Pro Ser Ser Ala Gly Arg Lys Arg Ser Ser Ala Ser
            100                 105                 110
Ala Ala Asn Glu Asp Tyr Gln Ala Glu Pro Val Arg Thr Lys Ser Arg
        115                 120                 125
Arg Thr Arg Leu Arg Asp Ser Ile Ala Glu Thr Ser Leu Gln Ser Asp
    130                 135                 140
Glu Val Ser Phe Asp Gln Asn Lys Tyr Tyr Glu Asp Arg Leu Gln Thr
145                 150                 155                 160
Tyr Val Glu Ala Asp Glu Trp Met Phe Asp Thr Val Gly Pro Leu Leu
                165                 170                 175
Ser Lys Leu Gly Val Asp Lys Leu Glu Ser Leu Asp Glu Leu Arg Arg
            180                 185                 190
Gln Ser Ala Ala Asn Cys Ser Lys Ser Ser Val Glu Arg Ser Ser Asn
        195                 200                 205
Gln Pro Thr Ser Ala Val His Val Leu Tyr Arg Asp Leu Asp Ser Ile
    210                 215                 220
Val Lys Thr Trp Asp Glu Ala Lys Ser Gln Ala Met Leu Gln Asp Asp
225                 230                 235                 240
Thr Ser Leu Thr Phe Gln Asp Met Lys Ala Met Asp Asn Ser Gly Leu
                245                 250                 255
Thr Ile Phe Leu Glu His Ser Arg Lys Ser Ala Arg Lys Thr Gly Leu
            260                 265                 270
Lys Pro Ser Phe Thr Asp Asp Lys Val Leu Ser Lys Phe Leu Lys Gly
        275                 280                 285
Val Asn Glu Glu Trp Leu His Leu His Glu Val Gly Phe Ala Trp Leu
```

```
    290                 295                 300
Lys Leu Leu Leu Met Pro Val Tyr Gly Lys Ser Pro Val Arg Lys Asn
305                 310                 315                 320
Ser Arg Ser Lys Lys Trp Pro Val Met Glu Ser Ala Tyr Val Ala Phe
                325                 330                 335
Gln Trp Pro Asp Val Leu Lys Glu Lys Val Val Gln Leu Leu Val Arg
            340                 345                 350
Asp Asp Glu Tyr Ile Phe Lys Lys Met Arg Glu Gln Ala Glu Gln Thr
        355                 360                 365
Glu Leu Gln Ile Leu Asn His Thr Pro Gln Thr Pro Phe Lys Tyr Thr
    370                 375                 380
Arg Asp His Leu Ala Tyr Leu Glu Met Thr Gln Thr Val Phe Glu Ile
385                 390                 395                 400
His Leu Asp Val Tyr Ala Ser Ile Asn Asn Pro His Ser Glu Val Asp
                405                 410                 415
Gln Asp Thr Arg Leu Val Gln Arg Asp Arg Leu Met Arg Trp Ser Met
            420                 425                 430
Leu Ala Arg Thr Ala Leu Ser His Tyr Leu Asp His Gly Pro Ser Arg
        435                 440                 445
Lys Asp Ser Gln Asn Ser Ile Ile Leu Arg His Ile Trp Ala Ser Thr
    450                 455                 460
Phe His Ser Asn Met Glu Pro Asp Val His Arg Glu His Ile Leu Leu
465                 470                 475                 480
Cys Leu Gln Asp Leu Lys Glu Met Leu His Arg Leu Ser Ile Pro Glu
                485                 490                 495
Ile His Leu Met Asn Asn Ala Met Met Pro Glu Leu Ser Ala Asp Ala
            500                 505                 510
Ile Asp Gln Glu Ile Ser Lys Leu Asn Ser Met Asp Phe Phe Met Lys
        515                 520                 525
Ile Phe Thr Pro Gly Ser Glu Asp Pro Val Glu Leu Ile Glu Thr Ile
    530                 535                 540
Glu Pro Ile Val Glu Pro Ser Ser Val Glu Ile Pro Glu Glu Ser Glu
545                 550                 555                 560
Ser Asn Asp Gln Ser Leu Ser Gln Ser Met Val Gln Leu Lys Glu Met
                565                 570                 575
Arg Ser Phe Leu Asp Arg Gly Asp Ala Met Leu Lys Leu Phe Leu Trp
            580                 585                 590
Gln Arg Leu Arg Asp Ala Tyr Gln Ala Ile Asp Tyr Pro Pro Lys Val
        595                 600                 605
Val Ser Cys Tyr Leu Arg Ser Val Glu Thr Ile Ile Gln Glu Leu Leu
    610                 615                 620
Gly Ala Ser Tyr Leu Glu Glu Ser Asn Glu His Arg Glu Ile Ala Leu
625                 630                 635                 640
Ile Arg Trp Leu Lys Ser Leu Asp Arg Ile Leu Met Lys Leu Val Thr
                645                 650                 655
Leu Val Leu Gln Gln Ser Asp Lys Ala Tyr Glu Cys Leu Asp Met Glu
            660                 665                 670
His Leu Arg Ser Ser Met Ser Ala Leu Thr Thr Leu Thr Asn Leu Leu
        675                 680                 685
His Ser Phe Ala Leu Tyr Glu Asp Ser Val Arg Val Gly Gln Thr Pro
    690                 695                 700
Ser Ser Ser Val Arg Gly Ser Leu Ser Lys Ser Leu Gly Asn Phe Thr
705                 710                 715                 720
Glu Lys Leu Arg Glu Met Glu Val Arg Cys Trp Ile Leu Gln Tyr Thr
                725                 730                 735
Leu Leu Lys Glu Ala Ile Thr Gln Asn Gly Asp Leu Phe Glu Ser Pro
```

```
            740                 745                 750
Leu Glu Asp Arg Ile Leu Phe Leu Arg Ser Val His Asn Ala Leu Gly
        755                 760                 765
Ile Arg Lys Met Cys Lys Arg Ser Asn Lys Gln Phe Leu Lys Leu Met
    770                 775                 780
Lys Ala Glu Phe Phe Ser Leu Glu Ser Lys Glu Ala Tyr Glu Ser Glu
785                 790                 795                 800
Ile Cys Gln Ile Leu Trp Asp Leu Tyr Gly Ile Asn Leu Ser Pro Pro
                805                 810                 815
Gly Met Phe Leu Phe Glu His Glu Cys Pro Pro Glu Lys Leu Asp Arg
            820                 825                 830
Ser Thr Ala Ile Lys Leu Val Asp Phe Val Leu Lys Leu Ala Lys Arg
        835                 840                 845
Met Asn Ile Lys Asp Leu Ser Lys Ser Glu Leu Lys Ser Thr Ile Glu
    850                 855                 860
Ser Ser Pro Arg Arg Leu Asp Gly Ser Ala Leu Arg
865                 870                 875
```

<210> 37654
<211> 620
<212> PRT
<213> A.fumigatus

<400> 37654

```
Arg Pro Tyr Gln Cys Arg Arg Ile Asn Leu Pro Cys Glu Gly Tyr Ala
1               5                   10                  15
Gln Arg Ile Thr Phe Lys Asp Gln Thr Lys Leu Val Val Ala Arg Val
            20                  25                  30
Thr Gly Lys Pro Ala Gly Lys Lys Gly Gln Ser Ser Thr Pro Lys Asp
        35                  40                  45
Glu Glu Asp Asp Glu Ala Asn Ser Thr Leu Pro Ser Ser Ile Gly Arg
    50                  55                  60
Lys Pro Ile Ser Pro Arg Gly Pro Pro Ser Pro Pro Ser Ser Glu Tyr
65                  70                  75                  80
Thr Glu Ser Cys Ser Pro Met Glu Leu Lys Gln Glu Asn Thr Lys Thr
                85                  90                  95
Asn Phe Arg Arg Gly Pro Asp Thr Pro Thr Asn Pro Asp Leu Glu Thr
            100                 105                 110
Tyr Ser Glu Ile Lys Pro Asp Gln Arg His Ser Val Pro Ala Trp Pro
        115                 120                 125
Asp Val Leu Asp Thr Val Ser Asp Ser Phe Lys Val Met His Asn Gly
    130                 135                 140
Tyr Leu Thr Pro His Ser Pro Met Ser Ala Arg Thr Gly Leu Ser Pro
145                 150                 155                 160
Arg Arg Ile Leu Phe Asn Ser Ser Leu Ser Leu Leu Gly Ala Phe Glu
                165                 170                 175
Phe Pro Glu Asp Tyr Met Tyr Tyr Glu Tyr Ser Ala Asn Gly His Leu
            180                 185                 190
Leu Gly Leu Leu Lys Val Leu Pro Leu Pro Glu Ile Leu Lys Ser Gln
        195                 200                 205
Pro Met Ser His His Val Tyr Asn Ala Ala Met Ala Leu Ala Ala Leu
    210                 215                 220
Thr Met Ser Ser Phe Glu Pro Tyr Ser Arg Gly Ser Ile Lys Leu Arg
225                 230                 235                 240
Arg His Ala Phe His His Ser Leu Lys Ala Ile Gln Gly Leu Asn Ala
                245                 250                 255
```

```
Glu Leu Ser Ser Ser Ser Ala Ala Lys Thr Ala Val Gln Ser Trp Asn
            260                 265                 270
Tyr Asp Arg Ile Leu Ser Leu Leu Pro Thr Pro Arg Ser Leu Ala Asn
        275                 280                 285
Phe Glu Leu Gln Arg Gly Ala Leu Leu Ala Trp Arg Ser His Met Gln
    290                 295                 300
Gly Ala Ala Leu Cys Leu Asn Thr Gly Tyr Lys Gln Leu Lys Gln Thr
305                 310                 315                 320
Leu Ala Gly Met Leu Leu Ile Arg Ser Phe Ala Arg Met Ala Leu Leu
                325                 330                 335
Leu Arg Leu Tyr Asn Lys Asp Tyr Ser Val Thr Ser Pro Glu Thr Met
            340                 345                 350
Pro Thr Arg Leu Ser Gln Trp Leu Asp Leu Leu Leu Lys Gln Ser Ser
        355                 360                 365
Gln Leu Gln Asp Arg Met Leu Leu Leu Val Glu Glu Val Thr Ala Leu
    370                 375                 380
Glu Ile Gln Lys Arg Gln Glu Pro Glu Leu Asp Thr Phe Trp Ser Ser
385                 390                 395                 400
Lys Ser Ser Glu Leu Leu Cys Lys Leu Asp Glu Trp Arg Thr Asp Val
                405                 410                 415
Pro Ile Asp Glu Val Pro Val Asp Asp Asp Ile Ser Gly Ala Tyr Leu
            420                 425                 430
Thr Ile Ser Ser Ser Asp His Ala Ser Leu Ile Arg Val Ser Ala Leu
        435                 440                 445
Val Phe Pro Asn Thr Arg Asp Pro Cys Thr Ser Ala Val Asn Tyr Val
    450                 455                 460
Ala Tyr Leu Cys Thr Cys Met Arg Ala Arg Thr Arg Tyr Leu Pro Asp
465                 470                 475                 480
Ser Gly Arg Ile Val Pro Pro Asp Ala Glu Arg Thr Ala Leu Thr Ile
                485                 490                 495
Cys Arg Ile Ala Ala Gly Ile Pro Pro Thr Arg Phe Gly Glu Ser Phe
            500                 505                 510
Thr His Ser Tyr Gly Met Leu Pro Ser Val Val Gly Ala Tyr Arg Trp
        515                 520                 525
Ser Thr Asn Pro Gly Leu Arg Asn Trp Ile Lys His Trp Leu Ala Gly
    530                 535                 540
Tyr Arg Gly Pro Arg Glu Gly Ile Trp Asn Val Gln Gln Thr Leu Lys
545                 550                 555                 560
Leu Leu Ala Thr Met Asp Ser Leu Pro Lys Pro Gly Trp His Phe Ile
                565                 570                 575
Ala Leu Lys Val Ile Asp Glu Pro Gln Glu Pro Ser Pro Asp Leu Asp
            580                 585                 590
Glu Ala Gln Ser Asn Glu Pro Phe Lys Val Val Leu Gln Ala Thr Val
        595                 600                 605
Gln Asn Ala Thr Ser Thr Asn Val Phe Val Val Lys
    610                 615                 620
```

<210> 37655
<211> 453
<212> PRT
<213> A.fumigatus

<400> 37655

```
Ile Pro Ile Ser Leu Glu Ser Ala Ser Thr Asp Ser Ile Thr Asn Arg
1               5                   10                  15
Asn Ile Lys Cys Asp Gly Leu Arg Pro Glu Cys Ser Gln Cys Arg Lys
```

```
            20                  25                  30
Tyr Gly Val Gln Cys Pro Gly Tyr Ala Lys Val Arg Lys Phe Met Asp
        35                  40                  45
Glu Gly Pro Val Ile Lys Lys Arg Tyr Gly Gln Ala Ala Asp Leu Val
    50                  55                  60
Asn Glu His Glu Ile Glu Glu Ile Arg Arg Gln Gly Ser Leu Ala Arg
65                  70                  75                  80
Pro Pro Asp Ser Ile Asp Glu Arg Ile Phe Pro Ser Leu Val Ala Lys
                85                  90                  95
Ser Met Thr Arg Gln Gln Pro Ala Val Phe Arg Asp Phe Val Leu Thr
            100                 105                 110
Ala Phe Pro Arg Phe Phe Gly Leu Asn Lys Tyr Arg Val His Val Pro
        115                 120                 125
Trp Ala Val Tyr Val Ser Asp Val Leu Gly Thr Thr Pro Ala Leu Asp
    130                 135                 140
Ala Ala Ile Phe Cys Ile Thr Ser Val Phe Met Gly Arg Ser Asn His
145                 150                 155                 160
Asp Val Ala Leu Gln Asn Ser Ser Arg Glu Met Tyr Ser Lys Ala Leu
                165                 170                 175
Val Ser Leu Gly Gly Met Ile Lys His Asp Lys Ile Met Arg Ser Arg
            180                 185                 190
Glu Ser Val Ser Thr Ser Ile Leu Leu Ser Leu Phe Glu Ala Tyr Ser
        195                 200                 205
Gln Thr Arg Glu Asp Ser Trp Ala Gln His Ala Ala Gly Ala Ala Leu
    210                 215                 220
Leu Met Ser Met Arg Gly Ala Lys Ser His Leu Thr Gly Phe Asp Arg
225                 230                 235                 240
Cys Leu Tyr Leu Ser Phe Arg Ser Phe Leu Thr Ala Ala Ala Phe Ile
                245                 250                 255
Glu Gly Lys Pro Cys Phe Phe Glu Lys Pro Glu Trp Gln Ser Leu Ile
            260                 265                 270
Asp Glu Ile Arg Lys Gln Asp Met Ala Asp Pro Arg Ala Asn Ala Thr
        275                 280                 285
Ile Ser Ala Ile Ile Asp Val Thr Asp Arg Leu Phe Ile Glu Val Val
    290                 295                 300
Lys Ile Pro Gly Met Met Tyr Arg Val Asn Arg His Leu Asn Ala Ser
305                 310                 315                 320
Pro Pro Ala Ser Pro Ser Asp Thr Glu Gln Leu Ile Ser Arg Leu Tyr
                325                 330                 335
Gln Cys Lys Glu Lys Ile His Gly Leu Ala Ser Glu Leu Arg Leu Val
            340                 345                 350
Ala Ser Val Gln Gly His Arg Asn Thr Arg Gly Lys Leu Ser Leu Ile
        355                 360                 365
Gly Pro Ile Pro Ser Thr Leu Pro Gln Ser Phe Ser Ser Gly Val Leu
    370                 375                 380
Arg Gly Thr Lys Asn Cys Phe Lys Ile Leu Asp Leu Leu Leu His Asn
385                 390                 395                 400
Leu Thr Val Ser Gln His Asn Lys Tyr Tyr Ser Pro Cys Ala Val Pro
                405                 410                 415
Gly Thr Pro Ala Gly Tyr Gly Pro Ser Ser Ser Ser Ser Ser Arg Ile
            420                 425                 430
Ser Ala Pro Glu Ser Met Pro Ser Glu Ser Phe Phe Asp Glu Pro Arg
        435                 440                 445
Ile Ile Pro Phe His
    450
```

<210> 37656
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37656
Gly Leu Ile Gly Glu Arg Pro Glu Cys Ala Tyr Asp His Leu Thr Phe
1 5 10 15
Thr Glu Leu His His Asp Pro Leu Thr Leu Lys His Phe Pro Pro Ala
20 25 30
Glu Ser Phe Leu Gly Phe Asn Ser Thr Asn Cys Ala Thr Thr Leu Leu
35 40 45
Ser His Ser Trp Ile Phe Leu Pro Ser His Ser Ile Ala Ser Ala Asp
50 55 60
Cys Leu Leu Tyr
65

<210> 37657
<211> 114
<212> PRT
<213> A.fumigatus

<400> 37657
Ala Ser Pro Arg Ala Cys Pro Pro Val Leu Ser Pro Ser Leu Arg Cys
1 5 10 15
Arg His His Cys His Ser Gly Asp Glu Phe Ser Pro Asp Phe Gly Leu
20 25 30
Gln Thr Met Gly Pro Leu Ser Gln Pro Val Lys Leu Tyr Ala Val Thr
35 40 45
Ser Thr Arg Thr Pro Tyr Asn Tyr Ser Asp Asn Val Leu Ala Gly Asp
50 55 60
Ser Arg Phe Trp Cys Ser Arg Ser Asn Val Leu Phe Ala Glu Ser Asp
65 70 75 80
Phe Ala Ser Gly Lys Thr Ile Tyr Tyr Leu Thr Thr Lys Thr Phe Val
85 90 95
Glu Val Ala Phe Trp Thr Val Ala Cys Asn Thr Thr Leu Asn Gly Ser
100 105 110
Leu Leu

<210> 37658
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37658
Ser Glu Ser Arg Gly Arg Gly Asn Glu Arg Ile Lys Thr Arg Val Val
1 5 10 15
Phe Asp Asp Pro His Ser Ile Glu Tyr Gln Phe Asp Tyr Ala Arg Val
20 25 30
Gln Ser Val His Glu Gln Leu Gly Val Ser Ile Gly Ser Lys Ile Val
35 40 45
Tyr Gln Tyr Arg Arg Gln Ser Ala Glu Ala Ile Glu Trp Glu Gly Arg
50 55 60
Lys Ile Gln Glu
65

<210> 37659
<211> 79
<212> PRT
<213> A.fumigatus

<400> 37659
Pro Ala Val Arg Leu Pro Tyr Asn Ala Phe Ala Met Leu Leu Glu Phe
1 5 10 15
Val Arg Ser Gln Ala Glu Val Ser Cys Phe Leu Gln Phe Met Gln Phe
20 25 30
Pro Gln Ala Ile Gly Asn Ala Ala Thr Thr Arg Ser Pro Val Leu Ile
35 40 45
Leu Leu Thr Pro Gly Pro Thr Leu Ser Thr Ile Pro Gln Asn Ser Cys
50 55 60
Pro Arg Thr Ser Pro Phe Ser Ser Ser Gly Met Thr Pro Met Arg
65 70 75

<210> 37660
<211> 121
<212> PRT
<213> A.fumigatus

<400> 37660
Cys His Arg Gln Gly Asp Gly Lys His Asn Leu Trp Lys Arg Ser Pro
1 5 10 15
Phe Ile Ser Trp Tyr Asp Leu Trp Ser Pro Trp Pro Gln His Thr Leu
20 25 30
Gly Lys Thr Arg Ala Ser Leu Thr Pro Tyr Leu Ile Gly Val Ile Pro
35 40 45
Glu Leu Glu Lys Gly Asp Val Leu Gly His Glu Phe Cys Gly Ile Val
50 55 60
Glu Ser Val Gly Pro Gly Val Lys Ser Ile Lys Thr Gly Asp Arg Val
65 70 75 80
Val Ala Ala Phe Pro Ile Ala Cys Gly Asn Cys Met Asn Cys Lys Lys
85 90 95
Gln Leu Thr Ser Ala Cys Glu Arg Thr Asn Ser Asn Ser Ile Ala Asn
100 105 110
Ala Leu Tyr Gly Lys Arg Thr Ala Gly
115 120

<210> 37661
<211> 95
<212> PRT
<213> A.fumigatus

<400> 37661
Leu Trp Thr Gly Asp Gly Cys Gln Asp Gln Gly Asp Asn Leu Ala Arg
1 5 10 15
Lys Lys Gln His Pro Ser Trp Trp Val Leu Gln Asp Arg Ala His Val
20 25 30
Ser Tyr Phe Ser Leu Thr Ser Thr Val Leu Pro Thr Val Glu Met Pro
35 40 45
Lys Pro Arg Val Ile Asp Glu Ala Asp Val Ile Val Lys Val Thr Gly
50 55 60
Ser Thr Ile Cys Gly Ser Asp Leu His Leu Tyr His Gly Met Ile Cys

65 70 75 80
Gly Pro Arg Gly Arg Asn Ile Leu Trp Glu Arg Arg Ala His His
85 90 95

<210> 37662
<211> 72
<212> PRT
<213> A.fumigatus

<400> 37662
Glu Leu Glu Met Ala Ala Ser Gln Ala Ala Gly Leu Val Glu Lys Val
1 5 10 15
Ile Gly His Gly Asp Asn Ala Ala Val Thr Thr Asp Val Ser Asn Tyr
20 25 30
Ser Lys Asn Asp Tyr Gly Gln Glu Thr Gly Ala Arg Ile Lys Ala Thr
35 40 45
Thr Trp Gln Gly Lys Asn Ser Ile Gln Val Gly Gly Phe Ser Arg Ile
50 55 60
Val Arg Met Tyr Leu Thr Ser Leu
65 70

<210> 37663
<211> 137
<212> PRT
<213> A.fumigatus

<400> 37663
His Cys Lys Cys Ile Val Trp Gln Thr Asn Ser Trp Leu Val Asn Pro
1 5 10 15
Cys Gly Ala Asp Pro Ala Pro Lys Thr Lys Tyr Asp Ser Leu Ile Leu
20 25 30
Leu Val Val Gly Met Phe Gly Tyr Ser His Phe Thr Ala Gly Phe Ala
35 40 45
Gly Gly Gln Ala Glu Tyr Val Arg Val Pro Glu Arg Asp Val Asn Leu
50 55 60
Leu Gln Leu Pro Asp Asp Val Pro Phe Glu Lys Gly Leu Tyr Leu Ser
65 70 75 80
Asp Val Leu Ala Thr Ser Tyr His Cys Val Thr Asp Thr Arg Val Asp
85 90 95
Lys Gly Asp Val Val Ala Ile Trp Gly Ala Gly Pro Ile Gly Gln Met
100 105 110
Cys Gly Lys Phe Ser Phe Asp Gln Ser Ala Ser Lys Val Ile Leu Ile
115 120 125
Glu Gly Gly Lys Gly Cys Leu Lys Asn
130 135

<210> 37664
<211> 110
<212> PRT
<213> A.fumigatus

<400> 37664
Val Thr Leu Ser Ser Met Ile Leu Gly Thr Pro Gln Ile Asn Ala Val
1 5 10 15
Leu Gln Thr Asn His Phe Asn Val Gly Ala Met Met Gln Thr Gly Val
20 25 30

```
Arg Leu Ile Gly Asn Gly Gln Ala Pro Val Gln Lys Tyr Trp Lys His
        35                  40                  45
Leu Leu Glu Leu Ile Arg Lys Gly Glu Ile Asn Pro Leu Asp Met Val
    50                  55                  60
Thr His Arg Met Arg Leu Glu Asp Met Glu Lys Val Tyr Ala Leu Phe
65                  70                  75                  80
Asp Lys Arg Glu Glu Gly Met Gln Lys Ile Phe Val Gln Thr Arg Phe
                85                  90                  95
Ser Ala Pro Pro Ala Ala Gly Ser Pro Ser Leu Thr Val Leu
            100                 105                 110
```

<210> 37665
<211> 131
<212> PRT
<213> A.fumigatus

```
<400> 37665
Gly Arg Arg Leu Gly Trp Leu Gly Phe Cys Ile Asn Ala Ala Leu Thr
1               5                   10                  15
Gly His Ser Gly Glu Val Phe Thr Val Arg Phe Asp Pro Thr Ala Gln
            20                  25                  30
His Ile Ala Ser Gly Ser Met Asp Arg Ser Ile Cys Glu Ser Gln Leu
        35                  40                  45
Lys Leu Ser Ile Leu Leu Ser Thr Thr Asp Ala Ser Ser Thr Asn Asp
    50                  55                  60
Ser Thr Leu Glu His Ile Trp Ala Met Arg Glu Leu Trp Arg Ser Asp
65                  70                  75                  80
Trp Pro Ser Arg Gly Asp Pro Gly Phe Thr Met Val Glu Arg Phe Thr
                85                  90                  95
Val Asp Phe Phe Gly Ile Gly Gly His Asp Thr Ser Glu Leu Gly Leu
            100                 105                 110
Gly Asn Trp Ala Glu Asn Thr Thr Pro Arg Trp Ala Arg Gly Asp Asn
        115                 120                 125
Lys Leu Ser
    130
```

<210> 37666
<211> 81
<212> PRT
<213> A.fumigatus

```
<400> 37666
Asn Ile Ala Asp Lys Val Gly Phe Asp Leu His Leu Asn Leu Arg Glu
1               5                   10                  15
Thr Ser Glu Phe Gln Leu Leu Glu Glu Leu Thr Phe Met Gln Lys Pro
            20                  25                  30
Ala Ser Trp Leu Arg Leu Thr Ile Ser Ser Ala Pro Leu Lys Thr Pro
        35                  40                  45
His Lys Ile Leu Glu Asn His Ser Ser Ser Cys Ala Leu Pro Ser Ser
    50                  55                  60
Gly Ser Ser Thr Lys Ser Ala Arg Gly Phe Ser Ser Lys Met Arg Glu
65                  70                  75                  80
Asn
```

<210> 37667

<211> 133
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (130),(131)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37667
Ser Ser Ala Phe Tyr Leu Val Arg Leu Thr Leu Leu Leu Pro Thr Thr
1 5 10 15
Val Leu Trp Asn Thr Tyr Gly Gln Cys Glu Asn Tyr Gly Val Leu Thr
20 25 30
Gly His Arg Gly Ala Ile Leu Asp Leu Gln Trp Ser Arg Asp Ser Arg
35 40 45
Ser Ile Phe Ser Ala Ser Ala Asp Met Thr Leu Ala Ser Trp Asp Leu
50 55 60
Glu Thr Gly Gln Arg Ile Arg Arg His Val Gly His Glu Glu Ile Ile
65 70 75 80
Asn Cys Leu Asp Ile Ser Lys Arg Gly Gln Glu Leu Leu Val Ser Ala
85 90 95
Ser Asp Asp Gly Cys Ile Gly Ile Trp Asp Pro Arg Gln Lys His Ala
100 105 110
Ile Glu Tyr Leu Glu Thr Glu Ser Ser Pro Arg Gly Ala Arg Ala Val
115 120 125
Ser Xaa Xaa Pro Pro
130

<210> 37668
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37668
Arg Leu Cys Phe Glu Val Phe Asp Ser Met Leu Leu Ser Trp Val Pro
1 5 10 15
Asn Pro Tyr Ala Thr Val Val Ala Arg Ala Asn Gln Glu Leu Leu Ala
20 25 30
Ser Phe Ala Asp Val Lys Thr Ile Tyr Tyr Leu Leu Val Pro Asn Val
35 40 45
Ala Ser Tyr Ser Leu Pro Ser Phe Gln Val Pro Ala Arg
50 55 60

<210> 37669
<211> 103
<212> PRT
<213> A.fumigatus

<400> 37669
Ala Pro Pro Ser Thr Leu Glu Thr Leu Ile Cys Thr Leu Arg Asn Leu
1 5 10 15
Leu Glu Gly Ser Ala Ser Ala Asn Ala Ala Asn Leu Arg Thr Arg Val
20 25 30
Asp Lys Val Asn Ala Glu Leu Val Thr Leu Thr Tyr Gly Thr Ile Val
35 40 45

```
Ala Gln Leu Cys Gln Asp Tyr Asp Ser Asn Tyr Gln Glu Val Asn Lys
    50                  55                  60
Gln Leu Asp Lys Met Gly Tyr Asn Ile Gly Met Arg Leu Ile Glu Asp
65                  70                  75                  80
Tyr Leu Ala Lys Ser Gly Met Gly Arg Cys Ala Asn Phe Arg Glu Thr
                85                  90                  95
Ala Asp Met Ile Ser Lys Val
            100
```

<210> 37670
<211> 103
<212> PRT
<213> A.fumigatus

<400> 37670

```
Val Gly Phe Lys Ile Phe Leu Asn Ile Thr Pro Thr Val Thr Asn Trp
1               5                   10                  15
Thr Ser Asp Asn Asn Gln Phe Ser Leu Ile Phe Asp Glu Asn Pro Leu
            20                  25                  30
Ala Asp Phe Val Glu Leu Pro Asp Asp Gly Arg Ala Gln Asp Glu Leu
        35                  40                  45
Trp Phe Ser Asn Ile Leu Cys Gly Val Leu Arg Gly Ala Leu Glu Met
    50                  55                  60
Val Arg Arg Ser Gln Glu Ala Gly Phe Cys Met Asn Val Ser Ser Ser
65                  70                  75                  80
Ser Ser Trp Asn Ser Asp Val Ser Leu Arg Phe Lys Cys Arg Ser Lys
                85                  90                  95
Pro Thr Leu Ser Ala Met Phe
            100
```

<210> 37671
<211> 91
<212> PRT
<213> A.fumigatus

<400> 37671

```
Pro Gly Met Glu Ala Pro Ile Lys Pro Thr Ala Ala His Arg Pro Leu
1               5                   10                  15
Pro Lys Thr Gln Ile Lys Asp Glu Phe Ser Gly Thr Glu Gly Val Tyr
            20                  25                  30
Leu Leu Pro His His Gln Glu Glu Ile Lys Arg Leu Gln Arg Gln His
        35                  40                  45
Phe Phe Ile Lys Ala Ala Thr Glu Asp Lys Leu Thr Ser Val Glu Leu
    50                  55                  60
Pro Lys Gly Ala Arg Val Leu Asp Ser Gly Cys Ala Asp Gly Glu Trp
65                  70                  75                  80
Asn Pro Gln Pro Leu Pro Ala Cys Cys Thr Lys
                85                  90
```

<210> 37672
<211> 63
<212> PRT
<213> A.fumigatus

<400> 37672

```
Leu His Phe Ala Asn Gln Lys Leu Thr Gly Leu Arg Lys Leu Thr Gly
```

```
1               5                   10                  15
Gly Val Arg Cys Leu Ser His Phe Pro Thr Thr Gly Phe Lys Ile Asn
            20                  25                  30
Arg Arg Gln Leu Lys Gln Met Gly His Ala Ala Gly Pro Glu Val Ala
        35                  40                  45
Asn Gly Leu Phe Pro Ser Ala Val Pro Asn Tyr Val Gln Ser Val
    50                  55                  60
```

<210> 37673
<211> 217
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (200)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37673

```
Val Glu Pro Ala Thr Pro Ala Cys Met Leu His Lys Val Lys Ser Thr
1               5                   10                  15
Ile Ile Gly Ala Arg Pro Arg Lys Arg Leu Lys Val Ala Ser Ala Gly
            20                  25                  30
Thr Trp Leu Ala Asp Leu Ala Gly Thr Asp Arg Pro Asp Leu Asp Leu
        35                  40                  45
Tyr Gly Val Asp Leu Gly Met Ala Leu Phe Arg Pro Asp Pro Arg Leu
    50                  55                  60
Lys Leu Arg Ala His Asp Val Arg Gln Pro Phe Pro Glu Ser Trp Gly
65                  70                  75                  80
Trp Lys Asp Ser Phe Asp Leu Val His Gln Arg Leu Leu Val Trp Gly
                85                  90                  95
Ile Arg Glu Asp Glu Trp Pro Arg Val Leu Ala Asn Leu Ala Thr Val
            100                 105                 110
Val Lys Pro Gly Gly Val Leu Gln Leu Val Glu Ala Glu Trp Val Leu
        115                 120                 125
Ser Ser Tyr Ser Asp Glu Gln Val His Gln Lys Lys Leu Ala Lys Val
    130                 135                 140
Gln Glu Trp Ser Thr Arg Ser Ser Gly Met Asp Val His Ile Trp Lys
145                 150                 155                 160
Lys Phe Pro Asp Leu Leu Leu Pro Leu Gly Phe Val Asp Met Lys Val
                165                 170                 175
Glu Thr Phe Asn Leu Gly Tyr Gly Ala Thr Ser Thr Arg Pro Glu Asp
            180                 185                 190
Arg Ile Trp Thr Ala Glu Ala Xaa Pro Gln Phe Phe Arg His Leu Ala
        195                 200                 205
Arg Lys Thr Pro Gly Met Tyr His Ala
    210                 215
```

<210> 37674
<211> 223
<212> PRT
<213> A.fumigatus

<400> 37674

```
Ala Leu Lys Val Arg Leu Leu Ser Leu Leu Thr Leu Ser Ala Thr Leu
1               5                   10                  15
```

```
Lys Pro Leu Thr Tyr Lys Thr Leu Met Asp Ala Leu Ser Ile Ser Ala
            20                  25                  30
Pro Ala Glu Leu Glu Ser Leu Val Thr Lys Ala Ile Tyr Ser Ser Leu
        35                  40                  45
Ile Thr Ala Arg Leu Ser Pro Ala Ser Asn Pro Pro Phe Val Asn Val
    50                  55                  60
Thr Ser Val Ala Pro Leu Arg Asp Ile Lys Pro Gln Ser Leu Pro Met
65                  70                  75                  80
Met Ile Ser Leu Leu Thr Gln Trp Glu Ser Arg Cys Gly Asp Val Ile
                85                  90                  95
Ser Asp Ile Glu Ala Glu Ile Ala Lys Val Lys Thr Asn Ala Ala Lys
            100                 105                 110
Arg Arg Ala Lys Glu Gln Ala Arg Ala Ala Leu Leu Glu Lys Ala Leu
        115                 120                 125
Ala Ser Ala Asp Gly Ser Ala Lys Asp Val Thr Gly Gly Gly Ser Gly
    130                 135                 140
Ser Arg Arg His Gly Gly Ser Gln Arg Phe Gly Gln Gly Gly Gly Asn
145                 150                 155                 160
Lys Arg Glu Phe Asn Ala Asp Asp Tyr Asp Asp Glu Asp Asp Gly Tyr
                165                 170                 175
Trp Asp Asn Gly Asn Asp Gly Gly Ile Asp Leu His Ala Ala Gly Ser
            180                 185                 190
Arg Met Asp Ile Asp Glu Ser Thr Gly Ser Ser Arg Phe Gly Leu Gly
        195                 200                 205
Gly Ala Gly Ala Arg His Ala Lys Arg Ile Leu Gly Lys Lys Ser
    210                 215                 220
```

<210> 37675
<211> 98
<212> PRT
<213> A.fumigatus

<400> 37675

```
Pro His Ala Asn Ser His Ser Phe Glu Ser Ser Ile Gly Ile Cys Leu
1               5                   10                  15
Val Gly Cys Leu Ser Leu Ser Leu Thr Met Ala Ser Pro Ser Leu Leu
            20                  25                  30
Asp Leu Glu Pro Arg Asn Arg Leu Pro Thr Leu Phe Glu Val Leu Ser
        35                  40                  45
Arg Arg Thr Leu Ala Pro Val Asp Leu Phe Ser Phe Tyr Ile Tyr Met
    50                  55                  60
Arg Asp Gln Gln Arg Ser Val Asp Tyr Leu Asp Phe Trp Tyr Ala Gln
65                  70                  75                  80
Asp Leu Ser Leu Asn Ser Ala Ala His Glu Ser Arg Glu Phe Ser Asp
                85                  90                  95
Leu Lys
```

<210> 37676
<211> 220
<212> PRT
<213> A.fumigatus

<400> 37676

```
Asn Arg Leu Asp Val Ser Gln His Met Ser Leu Cys Arg His Tyr Val
1               5                   10                  15
```

```
Arg Glu Leu Arg Arg Ser Val Leu Val Ala Thr Pro Asp Leu Glu Lys
            20                  25                  30
Ala Asp Ser Lys Gly Ser Ser Ala Ala Leu Asp Asn Leu Glu His Leu
        35                  40                  45
Gly Asp Ile Pro Leu Thr Glu Ala Gly Pro Ser Ser Leu Arg Arg Gly
    50                  55                  60
Phe Arg Asp Tyr Asp Asp Lys Asp Ala Asp Gln Arg Leu Ser Ala Phe
65                  70                  75                  80
Leu Arg Ser Asp Gly His Thr Ser Gln His Ser Pro Gln Ser Ser Leu
                85                  90                  95
Gly Ser Gln Asn Ala Ala Arg Leu Pro Ser Asn Glu Gln Pro Pro Arg
            100                 105                 110
Pro Ser Ser Gly Thr Gln Asn Glu Ser Asn Ser Pro Gly His Thr Val
        115                 120                 125
Thr Arg His Asp Ile Arg Ala Ser Ala Glu Lys Ile Leu Tyr Thr Tyr
    130                 135                 140
Leu Leu Pro Gly Ala Glu Arg Glu Ile Val Leu Pro Glu Glu Met Val
145                 150                 155                 160
Ser Thr Ile Ile Asn Leu Ile Glu Asp Asp Gly Arg Asp Asp Pro Glu
                165                 170                 175
Val Phe Asp Pro Ala Lys Asp Tyr Val Phe Gln Ser Asn Gly Pro Leu
            180                 185                 190
Arg Ile Pro Trp Val Phe Ala Ala Lys Ala Leu Gly Lys Pro Cys Ala
        195                 200                 205
Ile Asp Leu His Asp Thr Leu Ser Phe Gly Phe Asp
    210                 215                 220
```

<210> 37677
<211> 103
<212> PRT
<213> A.fumigatus

```
<400> 37677
Gln Ala Thr Ala Tyr Ser Leu Leu Gly Lys Pro Tyr Phe Asp Asp Pro
1               5                   10                  15
Cys Ala Leu Leu Leu Met Thr Asp Gln Val Ile Leu Pro Phe Ile Val
            20                  25                  30
Ala Ala Tyr Phe Ile Ala Ser Tyr Gln Tyr Lys Ile Asp Pro Val Met
        35                  40                  45
Ala Tyr Leu Gly Tyr Ser Glu Tyr Thr Phe Met Asn Trp Ala Pro Ile
    50                  55                  60
Arg Glu Pro Tyr Val Arg Lys Leu Leu Asn Lys Arg Ala Thr Ala Thr
65                  70                  75                  80
Leu Phe Ile Ala Leu Leu Val Ala Ala Ala Leu Ser Ile Leu Phe Ile
                85                  90                  95
Phe Val Pro Gly Thr Met Leu
            100
```

<210> 37678
<211> 488
<212> PRT
<213> A.fumigatus

```
<400> 37678
Gly Gln Leu Leu Glu Thr Ala Leu Ala Asp Thr Gln Lys Ser Leu Lys
1               5                   10                  15
```

```
Arg Leu Phe Asp Gly Ser Ser Thr Ile Ser Pro Ser Ala Arg Cys Pro
            20                  25                  30
Ala Ser Pro Ala Ser Pro Ser Pro Arg Leu Ser Asp Lys Arg Phe Pro
        35                  40                  45
Asp Ser Ile Gln Ser Ala Val Phe Thr Arg Pro Leu Gly Arg Phe Arg
    50                  55                  60
Val Asp Gln Asp Arg Asp Glu Arg Cys Phe Gly Pro Thr Ser Leu Glu
65                  70                  75                  80
Ser Leu Met Leu Asn Ile Lys Asp Glu Leu Leu Gln Ser Pro Asp Thr
                85                  90                  95
Asp Arg His Thr Val Lys Glu Cys Val Leu Gln Ala Gln Arg Lys Ile
            100                 105                 110
Asp His Leu Val Gly Gln Gly Glu Glu Ile Pro Ile Gly Gly Lys Ala
        115                 120                 125
Pro Pro Thr Met Pro Pro Phe Ala Ile Leu Glu Ala Met Ile Glu Pro
    130                 135                 140
Tyr Phe Thr Thr Thr His Gly His Phe Pro Ile Trp Ser Lys Lys Arg
145                 150                 155                 160
Phe Thr Glu Met Ala Thr Ala Leu Arg Gln Ser Ala Pro Ser Glu Arg
                165                 170                 175
Asp Leu Ala Ser Ile Val Cys Cys Asn Asn Leu Ile Leu Met Ala Met
            180                 185                 190
Ser Ala Asp Ser Pro Gly Ser His Gln Arg Glu Ser Met Met Ser Lys
        195                 200                 205
Gln Thr Arg Lys Thr Ser Ser Ile Asp Phe Asp Leu Ile Thr Gly Phe
    210                 215                 220
Leu Thr Asn Ala Lys Arg Ala Val Ser Asn Ile Asp Gln Leu Val Ser
225                 230                 235                 240
Pro His Leu Val Asn Val Gln Ala Leu Val Ser Leu Val Asp Leu Arg
                245                 250                 255
Leu Ile Pro Thr Val Thr Asn Gly Ile Gly Ser Leu Thr Asn Lys Lys
            260                 265                 270
His Ile Val Ala Gln Val Tyr Leu Ser Ile Gly Leu Ser Glu Thr Leu
        275                 280                 285
Leu Ala Leu Ala Ile Arg Cys Ala Lys Ser Ile Gly Val His Gln Trp
    290                 295                 300
His Ala Phe Gln Gly Arg Leu Ser Asp Asp Asp Val Asn Glu Arg Gln
305                 310                 315                 320
Asn Leu Ser Tyr Cys Leu Tyr Met Leu Asp Lys Ala Val Cys Trp Thr
                325                 330                 335
Ala Gly Ser Ser Pro Ser Ile Pro Val Ser Asp Val His Phe Asp Pro
            340                 345                 350
Arg Leu Val Pro Ser Glu Asn Gly Ile Pro Ser Ser Leu Val Ala Lys
        355                 360                 365
Ala Glu Met Ala Arg Ile Glu Glu Thr Val Tyr Leu Glu Ile Tyr Ala
    370                 375                 380
Val His Val Gln Ala Arg Asp Glu Asn Gln Val Arg Gly Phe Ala Ala
385                 390                 395                 400
Ala Ile Met Ser Lys Leu Gln Val Cys Leu Thr Glu Thr Gly Val Asp
                405                 410                 415
Leu Asp Gln Ile Gln Thr Ser Leu Asp Gly Ser Ala Ser Asn Leu Gln
            420                 425                 430
Leu Ala Ile Arg Tyr Leu Ser Val Gln Leu Leu Leu Ile Trp Pro His
        435                 440                 445
Lys His His Pro Asp Pro Met Phe Gln Gln Ala Pro Glu Val Ala Arg
    450                 455                 460
```

```
Met Cys Leu Lys Leu Leu Leu Arg Leu Trp His Ser Pro Pro Asp Gln
465                 470                 475                 480
Gly Ser Gln Ala Val Phe Ser Leu
                485
```

<210> 37679
<211> 111
<212> PRT
<213> A.fumigatus

<400> 37679

```
Asn Arg His Trp Leu Thr Gly Asn Thr Gly Ser Leu Leu Val Asp Thr
1               5                   10                  15
Pro His Ala Leu Met Lys Glu Trp Ala Lys Thr Ile Pro Asn Asp Gly
            20                  25                  30
Ile Leu Arg Tyr Tyr Ile Val Gly Asn Met Glu Arg Leu Thr Val Thr
        35                  40                  45
Ser Pro Ala Val Leu Arg Glu Ile Leu Val Ser Lys Ala Tyr Glu Phe
    50                  55                  60
Ala Lys Pro Leu Val Ile Gln Gln Thr Leu Arg Arg Val Leu Gly Asn
65                  70                  75                  80
Gly Ile Leu Ile Ala Glu Gly Glu Glu His Lys Val Arg Lys Ala Gln
                85                  90                  95
Gln Trp Pro Phe Ile Trp Leu Gln Gln Ala Glu Glu Ile Asn Val
            100                 105                 110
```

<210> 37680
<211> 206
<212> PRT
<213> A.fumigatus

<400> 37680

```
Phe Arg Tyr Ser Phe Leu Ala Ser Leu Pro Ser Leu Tyr Leu Tyr Glu
1               5                   10                  15
Val Leu Ile Ser Ile Leu Cys Gly Arg Gly Thr Asn Arg Asp Ile Asp
            20                  25                  30
Met Leu Gln Glu Phe Val Glu Met Leu Gln Thr Ile Thr Asp Cys Arg
        35                  40                  45
Ala Glu Ala Ser Tyr Asn Arg Arg Leu Tyr Gln Leu Ser Leu Ile Val
    50                  55                  60
Thr Asp Val Val Lys Ala Arg Arg Thr Gln His Lys Arg Pro Lys Pro
65                  70                  75                  80
Thr Ser Glu Gly Pro Thr Asp Pro Tyr Leu Met Ser Glu Leu Leu Ser
                85                  90                  95
Pro Ala Thr Thr Gly Tyr Ser Tyr Met Asn Ser Glu Val Gln Glu Thr
            100                 105                 110
Tyr Asp Ser Arg Phe Asp Gly Gly Val Phe Gln Asp Pro Asp Gly Ser
        115                 120                 125
Phe Ala Pro Met Ser Ser Ile Thr Ser Thr Ser Gly Glu Leu Ala Arg
    130                 135                 140
Gly Ser Asp Glu Phe Leu Ser Gln Leu Arg Ser Tyr Gly Lys Ser Ala
145                 150                 155                 160
Pro Gly Asn Glu His Phe Asp Ser Leu Ala Met Glu Ala Leu Gly Glu
                165                 170                 175
Ser Val Leu Phe Trp Lys Gly Val Asn Gln Gly Ala Ser Ala Asp Ser
            180                 185                 190
```

```
Pro Ser Val Arg Cys Asp Leu Gly Glu Arg Leu Asn Tyr Ile
        195                 200                 205

<210> 37681
<211> 84
<212> PRT
<213> A.fumigatus

<400> 37681
Asn Ser Phe Val Glu Gln Cys His Tyr Gln Ser Pro Ser Leu Gly Asn
1               5                   10                  15
Thr Gln Gly Cys Val Ser Ile Trp Phe Cys Leu Asp Ala Gly Ser Ser
            20                  25                  30
Phe Trp Leu Ser Asn Pro Val Leu Val Gly Phe Arg Ile Pro Ala Trp
        35                  40                  45
Ser Ile Tyr Gly Ile Leu Thr Ser Asn Asn His Ala Ser Asp Asn Glu
    50                  55                  60
Trp Thr Ser Arg Phe Tyr Val Gln Leu Pro Tyr Ser Phe Cys Gly Ser
65                  70                  75                  80
Lys His Arg Ser


<210> 37682
<211> 789
<212> PRT
<213> A.fumigatus

<400> 37682
Arg Pro Val Arg Lys Asp Leu Ala Trp Glu Gln Asn Gln Lys Ala Val
1               5                   10                  15
Ser Ala Ala Trp Asn Ala Ala Asn His Lys Lys Thr Arg Ile Gly Tyr
            20                  25                  30
Phe Ser Leu His Asp Ile Asn Ser Phe Pro Cys Glu Tyr Gly Asp Val
        35                  40                  45
Glu Lys Val Arg Asn Ala Ser Val Cys Ile Asp Lys Ala His Gly Gln
    50                  55                  60
Ser Ile Trp Asn Val His Leu Glu Thr Trp Lys Ser Asp Ala Glu Phe
65                  70                  75                  80
Trp Glu Ile Tyr Ala Ala Lys Tyr Thr Ile Leu Leu Glu Lys Ala Arg
                85                  90                  95
Ala Phe Leu Arg Leu His Thr Glu Arg Leu Leu Asp Ser Ala Pro Gly
            100                 105                 110
Asp Thr Pro Pro Lys Ala Ala Ile Phe Ile Ser Ala Gly Phe Asp Ala
        115                 120                 125
Ser Glu Trp Glu Gly Ser Gly Met Gln Arg His Gln Val Asn Val Pro
    130                 135                 140
Thr Glu Phe Tyr Ala Lys Phe Thr Ala Asp Val Val Gln Met Ala Glu
145                 150                 155                 160
Glu Glu Gly Leu Gly Val Asp Gly Arg Val Ile Ser Val Leu Glu Gly
                165                 170                 175
Gly Tyr Ser Asn Arg Ala Leu Thr Ser Gly Val Leu Ser His Leu Ala
            180                 185                 190
Ala Leu Gly Asp Thr Thr Thr Leu Ser Ala Ile Val Asn His Glu Gln
        195                 200                 205
Gln Val Gly Leu Ala Ser Glu Met Phe Asp Arg Leu His Val Ser Asp
    210                 215                 220
```

```
Ser Asn Ala Pro Ala Glu Ala Leu Arg Thr Pro Ser Asp Ile Gly Tyr
225                 230                 235                 240
Asp Ser Gln Trp Trp Ala Pro Thr Arg Leu Asp Glu Leu Glu Ala Leu
                245                 250                 255
Val Tyr Pro Pro Pro Ser Thr Ala Pro Lys Ser Lys Ser Ala Arg Thr
            260                 265                 270
Tyr Phe Ala Pro Thr Gln Ser Phe Ala Ala Lys Val Val Ala Ala Pro
        275                 280                 285
Arg Asp Arg Lys Ser Thr Gly Ser Pro Ala Gly Ser Asp Val Val Pro
    290                 295                 300
Leu Pro Glu Val Gly Trp Ala Thr Ala Ala His Glu Leu Ser Lys Val
305                 310                 315                 320
Leu Ile Pro Ser His Arg Gln Thr Thr Ser Tyr Arg Pro Glu Glu Leu
                325                 330                 335
Asn Ala Glu Ala Ser Arg Ile Arg Arg Glu Arg Gln Thr Ala Val Ala
            340                 345                 350
Ala Ala Gln Ala Ser Gln Lys Ala Ala Ser Ala Ala Ser Ala Ala Ser
        355                 360                 365
Glu Gly Asn Arg Met Gln Leu Arg Thr Arg Lys Ala Lys Ala Ser Leu
    370                 375                 380
Pro Ser Ser Pro Lys Ala Glu Thr Pro Lys Lys Asn Val Thr Lys Ser
385                 390                 395                 400
Thr Arg Arg Thr Thr Ile Asp Pro Gly Asp Leu Pro Ser Ser Thr Ala
                405                 410                 415
Asp Ser Ser Pro Gly Val Arg Thr Thr Arg Arg Lys Ser Thr Thr Pro
            420                 425                 430
Ile Ala Ser Lys Pro Ser Gly Ala Ala Glu Ser Gly Arg Pro Asn Thr
        435                 440                 445
Ser Ser Leu Asp Val Gly Ala Ser Glu Thr Pro Glu Gln Ala Ser Ile
    450                 455                 460
Ala Ala Gly Ser Cys Pro Pro Glu Ser Pro Ser Arg Ser Arg Ser Ser
465                 470                 475                 480
Thr Pro Ser Arg Ser Ala Ala Pro Lys Arg Ser Glu Gly Pro Lys Val
                485                 490                 495
Pro Pro Val Pro Arg Val Pro Ser Ser Phe Leu Ser Lys Pro Ala Ser
            500                 505                 510
Ser Asp Asp Gln Lys Val Val Ser Asp Gln Ala Gln Ala Glu Met Thr
        515                 520                 525
Glu Lys Thr Asp Ser Arg Pro Ala Asp Leu Asp Asp Leu Ala Ala Gly
    530                 535                 540
Val Lys Lys Leu Ser Ile Lys Leu Lys Val Pro Thr Pro Glu Glu His
545                 550                 555                 560
Ala Ala Arg Glu Lys Gln Arg Lys Thr Thr Lys Ala Ala Lys Ala Thr
                565                 570                 575
Glu Gln His Gln Arg Arg Ala Pro Arg Pro Thr Thr Ser Lys Thr Pro
            580                 585                 590
Thr Ser Ser Lys Lys Ala Ser Ser Val Thr Ala Ala Ala Thr Ala His
        595                 600                 605
Ala Ser Thr Ala Arg Gly Thr Ser His Pro Ser Pro Ser Pro Ser Thr
    610                 615                 620
Cys Gln Met Pro Phe Gly Pro Asn Ile Ala Ile Ser Asn Gly Asn Met
625                 630                 635                 640
Asp Arg Val Lys Gln Glu Ser Pro Glu Asn Ala Pro Asp Asp Leu Val
                645                 650                 655
Val Ser Ser Pro Asp Pro Leu Ala Glu Asn Glu Thr Pro Leu Leu Ser
            660                 665                 670
```

```
Asn Val Thr Ile Asn Arg Pro Arg Trp Glu Thr Pro Lys Asp Val Leu
        675                 680                 685
Val Ser Gly Ser Val Ser Thr Gln Glu Ala Pro Ser Gly Ser Ala Thr
    690                 695                 700
Pro Ser Ser Trp Ala Ser Glu Ser Leu Pro Gly Arg Ser Thr Val Tyr
705                 710                 715                 720
Ser Pro Pro Thr Thr Thr Arg Gln Thr Met Asn Gly Leu Pro Val Phe
                725                 730                 735
Thr Ser Ser Cys Pro Ile Pro Phe Ala Ala Ala Ser Thr Ala Pro Glu
            740                 745                 750
Gly Lys Gln Ala Leu Ala Met Gln Gln Pro Asn Leu Phe Thr His Ser
        755                 760                 765
Asp Asn Ala Gly Thr Gly His Pro Asp Leu Met His Asn Gln Asn Tyr
    770                 775                 780
Lys Pro Glu Gln Pro
785
```

<210> 37683
<211> 317
<212> PRT
<213> A.fumigatus

<400> 37683

```
Lys Val Ile Pro Thr Met Ala Pro Ile Thr Val Ser Lys Gly Arg Thr
1               5                   10                  15
Pro Ser Pro Asn Ala Gln Glu Ser Phe Thr Gln Met Ala Asp Lys Asp
            20                  25                  30
Leu Glu Ser Ile Gly Arg His Cys Gln Phe Glu Tyr Cys His Gln Leu
        35                  40                  45
Asp Phe Leu Pro Phe Arg Cys Glu Ser Cys Arg Gly Thr Phe Cys Leu
    50                  55                  60
Glu His Arg Thr Glu Thr Ala His Arg Cys Pro Lys Ala Gly Glu Trp
65                  70                  75                  80
Ala Arg Arg Arg Asn Gly Asn Gln Asn Thr Ser Thr Ala Ser Leu Pro
                85                  90                  95
Thr Gln Lys Pro Thr Ile Tyr Asn Ser Asp Gln Cys Ala His Leu Asp
            100                 105                 110
Cys Lys Thr Leu Ile Asn Thr Leu Lys Asp Pro Gly Val Arg Cys Pro
        115                 120                 125
Asp Cys Asn Arg Gln Tyr Cys Leu Arg His Arg Leu Arg Glu Glu His
    130                 135                 140
Glu Cys Thr Lys Ile Ala Pro Leu Gly Ala Arg Ala Gly Ser Gln Gly
145                 150                 155                 160
Pro Ser Asn Ala Glu Thr Ile Arg Ser Met Phe Ala Arg Val Arg Thr
                165                 170                 175
Trp Gly Lys Asp Lys Gly Gln Ala Leu Ala Pro Lys Pro Lys Ala Asn
            180                 185                 190
Ser Ala Ala Ala Arg Ile Ser Glu Leu Asn Ala Leu Lys Lys Ala Ala
        195                 200                 205
Lys Gly Asp Ala Gly Ile Pro Ala Asp Lys Arg Leu Tyr Leu His Val
    210                 215                 220
Val Gly Thr Ala Asp Ala Gln Ala Gln Lys Ala Glu Pro Pro Ser Gly
225                 230                 235                 240
Asp Phe Trp Phe Asp Ser Arg Trp Lys Val Gly Arg Val Leu Asp Asp
                245                 250                 255
Ala Ala Arg Arg Leu Arg Ile Glu Asn Val Asn Asn Arg Ala Gly Glu
```

```
            260                 265                 270
Glu Glu Arg Leu Arg Ile Phe His Val Asp Ser Gly Glu Phe Leu Glu
        275                 280                 285
Phe Ser Glu Thr Ile Gly Asp Gly Lys Val Lys Gln Gly His Thr Ile
    290                 295                 300
Val Leu Leu Arg Gly Ala Gly Val Ile Leu Gly Lys Ser
305                 310                 315
```

<210> 37684
<211> 90
<212> PRT
<213> A.fumigatus

<400> 37684

```
Gly Glu Leu Ser Lys Trp Ile Phe Gly Glu Lys Tyr His Arg Val Leu
1               5                   10                  15
Leu Leu Gly Glu Asp Ser Cys Gly Lys Thr Thr Phe Leu Arg Arg Leu
            20                  25                  30
Thr Phe Gly Glu Ile Gly Glu His Glu Pro Leu Pro Thr Arg Asp Phe
        35                  40                  45
Asp Ile Glu Thr Thr Asn Tyr Pro Ala Thr Tyr Lys Trp Ser Ile Trp
    50                  55                  60
Glu Phe Arg Ser Met Leu Leu Ala Leu Phe Arg Leu Pro Phe Ser Val
65                  70                  75                  80
Leu His Phe Ile Pro Trp Phe Gly Arg Cys
                85                  90
```

<210> 37685
<211> 725
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (531)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37685

```
Leu Arg Glu Asn Ser Gln Asn Gly Ser Ser Ala Arg Asn Thr Ile Ala
1               5                   10                  15
Ser Tyr Ser Trp Glu Lys Thr Ala Ala Ala Arg Gln Pro Ser Ser Ala
            20                  25                  30
Ala Ser His Ser Ala Lys Ser Glu Ser Met Ser Arg Ser Arg Arg Glu
        35                  40                  45
Thr Leu Thr Ser Arg Arg Arg Thr Thr Leu Pro Pro Thr Ser Gly Val
    50                  55                  60
Tyr Gly Asn Phe Gly Val Cys Tyr Leu His Phe Ser Val Phe Arg Phe
65                  70                  75                  80
Leu Phe Tyr Ile Leu Tyr Leu Gly Leu Val Asp Ala Asp Arg Gln Ala
                85                  90                  95
Ser Val Arg Cys Trp Pro Leu Ile Trp Arg Glu Leu Ala Pro His Thr
            100                 105                 110
Leu Val Leu Trp Leu His Asp Cys Ser Thr Glu Asp Asp Trp Pro Pro
        115                 120                 125
Trp Lys Phe Arg Ser Leu Leu Glu Gln Met Val Glu Arg Gly Cys Arg
    130                 135                 140
```

```
Tyr Ile Trp Val Gly Leu Asn Lys Gln Asp Ser Pro Asp Val Ser Glu
145                 150                 155                 160
Glu Ser Val Gln Glu Ala Arg Arg Lys Tyr Glu Glu Glu Phe Ala Lys
                165                 170                 175
Tyr Lys Asp Asp Leu Ser Trp Lys Val Leu Thr His Lys Leu Ser Ala
            180                 185                 190
Lys Thr Gly Val Gly Val Ser Glu Val Leu Lys Asp Ile Tyr Gln Ala
        195                 200                 205
Val Lys Arg Ala Asn Leu Glu Pro Pro Lys Glu Asp Lys Gln Asp Lys
    210                 215                 220
Thr Gly Thr Val Ile Ser Asp Ser Ser Asp Glu Lys Leu Thr Thr Glu
225                 230                 235                 240
Gln Leu Gln Arg Arg Ile Glu Lys Glu Val Thr Gly Asp Thr Ile Asp
                245                 250                 255
Pro Asp Ala Phe Trp Thr Ser Phe Leu Glu Gly Asp Leu Pro Ala Trp
            260                 265                 270
Thr His Tyr Thr Tyr Leu Lys Ala Leu Tyr Phe Val Ile Leu Glu Ser
        275                 280                 285
Ala Lys Lys Lys Thr Phe Thr Glu Ile Ala Asn Asp Phe Asn Ile His
    290                 295                 300
Leu Ile Arg Leu Arg Asn Ile Ser Pro Gln Leu Phe Asn Asp Ser Glu
305                 310                 315                 320
Thr Pro Ser Ala Tyr Val His Ala Pro Phe Asn Ile Cys Leu Ala Thr
                325                 330                 335
Phe Trp Thr Leu Gln Leu Gln His Gly Ile Arg Glu Tyr Arg Met His
            340                 345                 350
Ser Met Ser Ser His Leu Pro Ser Arg Glu Glu Phe Pro Gln Val Leu
        355                 360                 365
Arg Arg Ser Pro Ser Leu Met Ser Thr Tyr Leu Trp Lys Ser Tyr Tyr
    370                 375                 380
Ser Phe Asn Pro Val Ser Arg Pro Arg Asp Tyr Trp Ser Ile Pro Asn
385                 390                 395                 400
Leu Arg Lys Leu Pro Thr Gln Thr Asp Tyr Leu Arg Asp Pro Ala Thr
                405                 410                 415
Val Pro Arg Lys Asp Glu Gly Pro Asp Lys Leu Ile Arg Tyr Ala Phe
            420                 425                 430
Ala Val Met Gln Tyr Val Arg Asn Ala Gly Ala Ala Arg Gly Gln Val
        435                 440                 445
Val Thr Gln Ala Leu Val Ala Leu Gln Gln Ala Thr Met Arg Ala Arg
    450                 455                 460
Thr Ala Asp Ser Thr Val Glu Thr Tyr Ser Glu Thr Gln Ala Tyr Phe
465                 470                 475                 480
Trp Ile Gln Ile Val His Ala Ala Leu Arg Ser Leu Asp Asp Lys Lys
                485                 490                 495
Gly Ser Val Asp Thr Ser Glu Met Ser Phe Glu Ala Phe Gln Gln Thr
            500                 505                 510
Phe His Leu Lys Pro Thr Asp Trp Gln Glu Tyr Tyr Ser Lys Lys Leu
        515                 520                 525
Trp Asn Xaa Val Ala Ala Arg Ser Gln Phe Val Met Pro Asp Leu Lys
    530                 535                 540
Pro Leu Pro Asn Val Ile Ala Ser Leu Pro Ser Lys Val Ile Arg Lys
545                 550                 555                 560
Ala Pro Glu Gly Ile Pro Lys Leu Pro Ser Ala Glu Glu Leu Thr Phe
                565                 570                 575
Arg Ala Arg Met Ala Cys Glu Glu Leu Thr Pro Thr Leu Gln Ser Ser
            580                 585                 590
```

```
Gly Pro Pro Val Leu Ser His Thr His Leu Leu Phe Tyr Leu His Lys
        595                 600                 605
Arg Phe Thr Gln Ser Ala Glu Gly Gly Thr Arg Lys Lys Leu Glu Arg
    610                 615                 620
Arg Ala Arg Glu Leu Phe Ser Glu Ile Ala Gly Pro Ile Val Ala Gly
625                 630                 635                 640
Ala Thr Tyr Arg Asn Phe Trp Ile Gln Gln Val Gly Val Ala Val Leu
                645                 650                 655
Asn Ser Asp Ile Gly Lys Gly Arg Ser Thr Phe Pro Glu Phe Ile Thr
            660                 665                 670
Ser Asn Leu His Leu Val Phe Glu Glu Leu His Gly Ile Tyr Tyr Gly
        675                 680                 685
Pro Gly Val Trp Thr Ser Ala Asp Ala Ala Glu Lys Ile Leu Gly Pro
    690                 695                 700
Asp Arg Arg Arg Met Glu Thr Ile Val Asn Met Ala Asp Val Asn Met
705                 710                 715                 720
Ser Ala Asn Thr Lys
                725
```

<210> 37686
<211> 201
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (7)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37686

```
Phe Pro Leu Thr Met Asn Xaa Arg Lys Val Glu Leu Met Ser Asp Thr
1               5                   10                  15
Val Asp Ser Leu Glu Ile Ser Val Leu His Glu Leu His Gly Glu Gly
            20                  25                  30
Glu Ala Val Gly Pro Glu Gly Gln Phe Pro Glu Thr Gln Glu Ala Arg
        35                  40                  45
Arg Lys Arg Lys Lys Asn Lys Lys Lys Lys Arg Leu Ser Glu Val Thr
    50                  55                  60
Gln Thr Gly Glu Asn Ala Gln Ile Ser Leu Thr Pro Ile Met Asp Leu
65                  70                  75                  80
Gln Gln Pro Ser Gln Ser Arg Ser Ile Thr Asp Glu Glu Phe Leu Pro
                85                  90                  95
Asp Met Phe His Arg Leu Thr Thr Ile Thr Pro Leu Asn Gly Pro His
            100                 105                 110
Ala Asn Pro Asn Arg Arg Ile Pro Pro Ala Pro Val Ser Phe Lys His
        115                 120                 125
Asn Asp Tyr Leu Cys Asn Leu Ser Ile Ser Glu Ala Asp Val Ile Ala
    130                 135                 140
Met Gln Leu Phe Gln Gly Thr Tyr Arg Leu Asp Ile Arg Glu Leu Pro
145                 150                 155                 160
His Gln Glu Cys Arg Met Thr Leu Ile Trp Asp Tyr Asp His Leu Trp
                165                 170                 175
Gly Cys Phe Asp Ile Gly Val Trp Lys Gly Leu Met Leu Ile Asp Pro
            180                 185                 190
Gly Pro Arg Asp Asn Thr Lys Thr Met
        195                 200
```

<210> 37687
<211> 264
<212> PRT
<213> A.fumigatus

<400> 37687
Ser Phe Ala Trp Arg Gly Phe Cys Glu Asn Glu Pro Glu Val Ala Tyr
1 5 10 15
Asp Asn Glu Gly Ile Thr Val Gly Glu Ile Thr Leu Gly Gly Lys Gly
20 25 30
Pro Val Ser Gly Cys Phe Lys Gly Met Pro Val Ala Asn Phe Pro Asn
35 40 45
Asp Lys Cys Asp Phe Lys Ala Val Arg Glu Val Gly Pro Pro Met Val
50 55 60
Pro Trp Pro Val Glu Thr Phe Val Ala Asp Trp Asn Tyr Leu Gln His
65 70 75 80
Asp Arg Ala Lys Glu Pro Glu Ser Gln Arg Leu Val Leu Leu Ala Leu
85 90 95
Ser Pro Glu Pro Glu Ser Gln Val Val Asn Asp Glu Thr Met Gln Met
100 105 110
Asp Gly Glu Glu Asp Gln Glu Glu Glu Gly Gln Cys Gln Asp Glu Val
115 120 125
Thr Thr Asp Val His Pro Ser Ser Pro Ala Arg Gln Pro Ala Glu Thr
130 135 140
Pro His Thr Ser Pro Pro Pro Asp Glu Pro Thr Gln Gln Ser Gln Arg
145 150 155 160
Ala Pro Ser Thr Ile Ser Arg Phe His Ala Thr Pro Leu Ala Met Gln
165 170 175
Arg Ser Trp Ala Arg His Asp Gln Asp Lys Phe Leu Asp Val Val Cys
180 185 190
Gly Ser Tyr Glu Ile Ser Ser Pro Thr Met Lys His Asn Trp Ser Arg
195 200 205
Lys Ala Ser Lys Leu Arg Met Arg Leu Leu Val Asp Arg Gly Glu Ser
210 215 220
Cys Val Trp Gly Met Phe Ala Met Gly Val Tyr Arg Gly Ile Met Leu
225 230 235 240
Phe Gln Glu Ser Pro Ile Arg Phe Gln Lys Asp Leu His His Gly Ala
245 250 255
Gly Arg Ile Arg Ala Met Arg Asn
260

<210> 37688
<211> 103
<212> PRT
<213> A.fumigatus

<400> 37688
Gly Lys Cys Ser Val Cys Asn Tyr Ala Ile Leu Glu Arg Pro Leu Gln
1 5 10 15
Gln Val Ala Phe Asp Ile Asn Tyr Leu Tyr Gln Gly Val Ser Ile Leu
20 25 30
Gly Pro Leu Lys Tyr Met Lys Val Val Leu Ala Arg Ser Glu Asn Ser
35 40 45
Ala Ala Val Lys Ala Ala Ser His Ser Thr Cys His Ile Leu Phe Pro
50 55 60

```
Val Ser His Asn Leu His Val Ala Phe Leu Leu Arg Pro Ala Cys Pro
65                  70                  75                  80
Val Arg Val Lys Lys Leu Leu Ser Phe Ser Pro Leu Pro Asn Ile Ser
                85                  90                  95
Asn Cys Lys Glu Pro Tyr Leu
            100
```

<210> 37689
<211> 152
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (46)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37689

```
His Pro Glu Arg Gln Gly Pro Val Phe Arg Gly Val His Asp His Leu
1               5                  10                  15
Ser Pro Ala Arg Arg His Arg Arg Arg Leu Phe Pro Pro Asp Pro Val
            20                  25                  30
Leu Gly Pro Pro Gln Pro Ala Arg Lys Arg Phe Leu Pro Xaa Asp Gln
        35                  40                  45
Pro Gly Pro Pro Val Ala Pro Arg Arg Arg Thr Ala Arg Pro Ala Leu
    50                  55                  60
Leu Asp Ala Arg Ala Arg Ser Gln Pro Ala Ala Arg Arg Leu Pro Arg
65                  70                  75                  80
His Ser Asp His Pro Ala Pro Leu Ala His Pro Gln Gln Arg Pro Leu
                85                  90                  95
Gly Gly Ile Ala Arg Arg Arg Val Arg His Arg Arg Ser Leu Arg Asp
            100                 105                 110
Phe Pro Pro Glu Gly Pro Thr Ala Val Ser Arg Ser Asp Leu Arg Pro
        115                 120                 125
Val Arg Ala Gln Arg Gly Ala Ile Ala Ala Phe Gly Val Pro Ile Arg
    130                 135                 140
Ala Ala Glu Gly Asn Arg Arg Val
145                 150
```

<210> 37690
<211> 523
<212> PRT
<213> A.fumigatus

<400> 37690

```
Gly Ile Thr Asn Asp Lys Gln His Ala Asn Tyr Ser Leu Phe Val Phe
1               5                  10                  15
Arg Glu Arg Trp Pro Ala Pro Trp Ile Gly Gly Asn Ser Trp Pro Gln
            20                  25                  30
Thr Ile Arg Gln Ser His Leu Ala Cys Ser Phe Ser Ser Ala Ser Ala
        35                  40                  45
Ser Ala Ala Tyr Gly Phe Thr Ile Ser Leu Cys Thr Val Ser Pro Thr
    50                  55                  60
Pro Pro Ser Pro Ala Arg Thr His Arg Arg Ala Thr Ser Ala Ala Thr
65                  70                  75                  80
Ala Ser Pro Ser Arg Ser Ala Ser Ser Ala Ser Lys Ala Pro Ile Arg
```

```
                85                  90                  95
Ile His Ala Arg Val Asn Met Thr Arg Arg Pro Ser Ala Arg Thr Asp
            100                 105                 110
Ala Thr Ser Arg Ala Ala Leu Pro Leu Asn Ala Val Gln Ala Ile Pro
        115                 120                 125
Ser Ala Cys Ala Thr Leu Ser Pro Arg Ile Met Pro Asn Thr Arg Ser
    130                 135                 140
Thr His Ala Ala Asn Thr Ala Lys Phe Ser Leu Ala Ser Arg Asn Arg
145                 150                 155                 160
Thr Ile Ser Leu Ala Ser Thr Phe Val Val Pro Ser Gln Met Leu Leu
                165                 170                 175
Thr Ala Val Phe Arg Ser Ser Arg Glu Thr Leu Asn Ser Gly Ser Ser
            180                 185                 190
Gly Ser Ser Ile Tyr Pro Thr Pro Pro Ile Ala Ser Trp His Ser Trp
        195                 200                 205
Ile Pro Thr Ile Ala Ile Leu Leu Ile Thr Ala Leu Asp Thr Ala Val
    210                 215                 220
Asn Ala Arg Lys Thr Thr Val Ala Ser Ala Pro Leu Gly Thr Cys Ala
225                 230                 235                 240
Gly Thr Ala Ala Pro Gly Ser Pro Gly Phe Ser Thr Thr Pro Ile Thr
                245                 250                 255
Ala Thr Val Lys Asn Pro Ser Cys Ile Ala Ala Arg Cys Arg Thr Ser
            260                 265                 270
Thr Ser Ala Ser Lys Arg Arg Cys Ile Gly Ile Asn His Ser Gly Ser
        275                 280                 285
Pro Thr Val Leu Arg Ala Arg Glu Asn Ala Arg Ala Met Leu Ser Ala
    290                 295                 300
Arg Arg His Ala Pro Ser Glu Pro Met Lys Val Cys Val Arg Val Thr
305                 310                 315                 320
Phe Ser Ser Gly Ala Ile Val Ala Thr Pro Leu Ser Arg Gly Pro Thr
                325                 330                 335
Arg Cys Ala Arg Ile Ser Arg Ser Ser Ser Ser Ala Val Gly Arg Ser
            340                 345                 350
Leu Val Pro Ser Leu Phe Leu Arg Arg Trp Met Arg Thr Pro Leu Val
        355                 360                 365
Thr Ser Arg Gly Ala Trp Leu Gly Pro Val Met Val Arg Arg Arg Gly
    370                 375                 380
Ala Arg Lys Val Leu Ser Phe Pro Glu Gly Ala Val Leu Ala Arg Arg
385                 390                 395                 400
Arg Val Thr Leu Ala Ser Val Ala Glu Glu Lys Asn Leu Lys Pro Leu
                405                 410                 415
Met Leu Tyr Ser Pro Ser Pro Arg Val Pro Ser Gly Leu Leu Leu Val
            420                 425                 430
Ile Leu Leu Leu Leu Ala Val Glu Glu Ala Gly Thr Gly Ser Trp Val
        435                 440                 445
Ala His Val Ser Val Phe Trp Thr Ser Leu Pro Pro Ala Arg Ser Val
    450                 455                 460
Ile His Trp Pro Glu Val Gln Lys Ser Ser Leu Arg Glu Val Arg Arg
465                 470                 475                 480
Leu Lys Thr Thr Arg Lys Gly Trp Ser Ser Gly Lys Ala Cys Cys Trp
                485                 490                 495
Ser Cys Trp Glu Arg Ile Ser Ala Ala Pro Ser Val Met Ala Thr Gly
            500                 505                 510
Gln Glu Val Ser Pro Asp Glu Gly Pro Tyr Arg
        515                 520
```

<210> 37691
<211> 337
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (7),(24),(113)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37691

```
Gly Cys Ala Arg Arg Val Xaa Gly Gly Ala Ile Gly Leu Tyr Gly Asn
1               5                  10                  15
Arg Phe Pro Ser Ala Arg Lys Xaa Lys Asn Pro Gly Asn Gly Leu Thr
            20                  25                  30
Gly Ile Val Pro Ala Lys Thr Ser Phe Ser Gly Gly Asp Arg Pro Pro
        35                  40                  45
Arg Gly Gln Ser Thr Ser Gly Thr Gly Thr Ser Ser Pro Pro Gly Trp
    50                  55                  60
Asp Asp Phe Asp Ile Gln Asn Asp Lys Ala Gln Phe Phe Val Ala Tyr
65                  70                  75                  80
Thr Thr Ile Cys Leu Leu Leu Gly Asp Thr Val Glu Gly Cys Phe Arg
                85                  90                  95
Gln Thr Leu Ser Trp Asp Arg Arg Ser Gln Leu Glu Asn Ala Phe Tyr
            100                 105                 110
Xaa Trp Ile Asn Gln Ala Leu Pro Ser Leu Arg Ala Ala Ala Pro Pro
        115                 120                 125
Asp Pro Leu Ser Ser Thr His Glu Leu Glu Val Asn Gln Leu Leu Val
    130                 135                 140
Val Tyr Leu Ala Ile Leu Ile Ile Leu His Arg Ser Pro Thr Pro Asn
145                 150                 155                 160
Ser Val Pro Ser Ala Ala Ser Leu Val Ala Ala Ser Gly Ile Ala Gly
                165                 170                 175
Leu Phe Glu Thr Phe His Gln Lys Asp Gln Leu Gln Tyr Leu Gly Pro
            180                 185                 190
Ile Phe Ala Leu Tyr Gly Leu Ser Ala Gly Leu Ser Leu Leu Ser Ala
        195                 200                 205
Tyr Arg Tyr Glu Pro Leu Lys Glu Thr Ala Glu Tyr Glu Leu Ser Thr
    210                 215                 220
Ile Lys Leu Cys Leu Gln Thr Leu Ser Lys Arg Trp Arg Ser Ala Val
225                 230                 235                 240
Gly Pro Ile Arg Ala Leu Asp Arg Leu Thr Glu Gln Val Arg Arg Gln
                245                 250                 255
Pro Leu Phe Glu Gly Asn Val Pro Ser Leu Gly Pro Gly Leu Val Asp
            260                 265                 270
Phe Phe Asn Gly Ile Asp Arg Arg Leu Cys Arg Gln Trp Gly Val Ile
        275                 280                 285
Gln Gly Glu Arg Met Val Ala Arg Pro Val Ser Thr Leu Glu Thr Ala
    290                 295                 300
Lys His Asp Val Met Pro Phe Asp Gly Tyr Met Asp Ile Leu Asp Gln
305                 310                 315                 320
Asn Trp Glu Gly Ser Gly Phe Asp Trp Ser Gly Ser Trp Leu Leu Asp
                325                 330                 335
Ile
```

<210> 37692
<211> 92
<212> PRT
<213> A.fumigatus

<400> 37692
Glu Ile Gln Thr Ala Asp Val Gln Gly Tyr Leu Pro Ser Ser Thr Tyr
1 5 10 15
Gln Ser Ile Gln Ser Asn Leu Thr Gln Leu Gly Glu Glu Ala Ile Ser
20 25 30
Pro Gln Ile Arg Glu Trp Ser Ala Asp Ala Glu Arg His Gln Pro Tyr
35 40 45
Val Lys Gly Tyr Asn Val Trp Gly Gln Arg Tyr Asp Tyr Asp Arg Leu
50 55 60
Val Thr Ser Glu Gly Trp Lys Gln Leu Ser Arg Trp Gly Ala Arg His
65 70 75 80
Gly Tyr Trp Arg Cys Val Leu Ser Tyr Val Gln Asp
85 90

<210> 37693
<211> 298
<212> PRT
<213> A.fumigatus

<400> 37693
Arg Lys Gln Gly Gly Gly Ile Arg Leu Arg Ser Glu Leu Arg Arg Leu
1 5 10 15
Pro Pro Ser Arg Pro Ile Tyr Arg Gln Leu Ser Val Arg Ala Phe Val
20 25 30
Arg Ala Asp Leu Leu Pro Arg Arg His Asp Arg Arg Arg Arg Thr Asp
35 40 45
Pro Leu Pro Ala Thr Pro Ala Thr Arg Leu Pro Gly Arg Pro Ser Phe
50 55 60
Pro Gly Arg Leu Gln Pro Ser His Leu Pro Gln Arg Arg Leu Leu Asp
65 70 75 80
Leu Arg Pro Met Asp Asp Arg Thr Arg Arg Arg Gln Arg Arg Pro Lys
85 90 95
His Arg Asn Val Gly His Pro Arg Pro Cys Pro Gly Leu Leu His Ser
100 105 110
Gln Gln Gln Gln Tyr His Gln Gln Gln Pro Ala Arg His Pro Arg Arg
115 120 125
Arg Arg Val Gln His Gln Arg Leu Gln Ile Leu Leu Leu Arg Asn Arg
130 135 140
Arg Gln Arg His Pro Pro Pro Arg Gln Asp Arg Pro Leu Gly Lys Thr
145 150 155 160
Gln His Leu Pro Arg Ala Pro Pro Ala His His His Arg Pro Gln Pro
165 170 175
Ser Pro Pro Arg Ser His Gln Arg Gly Pro His Pro Pro Pro Gln Glu
180 185 190
Gln Ala Arg Asp Gln Gly Ser Pro His Arg Arg Ala Gly Ala Ala Gly
195 200 205
Tyr Ala Arg Ala Pro Arg Arg Ala Ala Arg Gln Gly Arg Arg Asp Asp
210 215 220
Arg Ala Ala Ala Glu Arg Asp Pro His Ala His Leu His Arg Leu Ala
225 230 235 240
Gly Cys Val Ala Pro Gly Ala Glu His Arg Pro Gly Val Leu Pro Arg

```
                245                 250                 255
Ala Gln His Gly Arg Arg Ala Ala Val Val Asp Ser Asp Ala Ser Thr
            260                 265                 270
Leu Ala Gly Gly Gly Gly Gly Ala Ala Ala Gly Gly Asp Ala Ala Gly
        275                 280                 285
Val Leu His Gly Gly Arg Asp Gly Cys Gly
    290                 295

<210> 37694
<211> 369
<212> PRT
<213> A.fumigatus

<400> 37694
Asp Gly Pro Val Ser Ala Gly Glu Gly Glu Leu Arg Gly Val Cys Cys
1               5                   10                  15
Val Gly Gly Ala Gly Val Gly His Asp Pro Gly Gly Glu Gly Gly Ala
            20                  25                  30
Arg Thr Gly Asp Gly Leu Asp Gly Val Gln Gly Gln Gly Gly Pro Gly
        35                  40                  45
Gly Gly Val Gly Ser Gly Gly Trp Ser Ala Ser His Val His Pro Gly
    50                  55                  60
Val Asp Ser Asp Gly Gly Leu Ala Gly Ala Gly Cys Arg Ala Arg Trp
65                  70                  75                  80
Gly Cys Gly Gly Gly Arg Gly Gly Ser Ser Val Gly Ser Gly Arg Arg
                85                  90                  95
Arg Arg Arg Arg Arg His Gly Ala Gln Gly Tyr Cys Glu Ala Val Arg
            100                 105                 110
Gly Arg Gly Arg Arg Gly Arg Glu Arg Ala Cys Glu Met Gly Leu Pro
        115                 120                 125
Asp Cys Leu Gly Pro Gly Ile Ala Ser Asp Pro Gly Gly Arg Pro Ser
    130                 135                 140
Phe Ser Lys Asp Glu Gln Ala Val Val Ser Met Leu Phe Val Ile Ser
145                 150                 155                 160
Asp Thr Ser Trp His Asn His His Asn His Asn His Ile Cys Thr Val
                165                 170                 175
His Gln Ile Ser Asn Asn Gln Asp Pro Leu Gln Ser Asn Pro Asp Pro
            180                 185                 190
Ser Gln Phe Trp Ser Lys Met Ser Ile Tyr Pro Ser Asn Gly Ile Thr
        195                 200                 205
Ser Cys Phe Ala Val Ser Arg Val Glu Thr Gly Arg Ala Thr Ile Leu
    210                 215                 220
Ser Pro Trp Ile Thr Pro His Cys Arg His Arg Arg Arg Ser Ile Pro
225                 230                 235                 240
Leu Lys Lys Ser Thr Asn Pro Gly Pro Arg Leu Gly Thr Phe Pro Ser
                245                 250                 255
Asn Lys Gly Cys Arg Arg Thr Cys Ser Val Ser Arg Ser Asn Ala Arg
            260                 265                 270
Ile Gly Pro Thr Ala Glu Arg Gln Arg Phe Asp Ser Val Cys Arg Gln
        275                 280                 285
Ser Leu Ile Val Asp Ser Ser Tyr Ser Ala Val Ser Phe Ser Gly Ser
    290                 295                 300
Tyr Arg Tyr Ala Glu Ser Ser Asp Ser Pro Ala Leu Ser Pro Tyr Arg
305                 310                 315                 320
Ala Lys Ile Gly Pro Arg Tyr Cys Ser Trp Ser Phe Trp Trp Lys Val
                325                 330                 335
```

```
Ser Lys Arg Pro Ala Met Pro Asp Ala Ala Thr Ser Asp Ala Ala Glu
            340                 345                 350
Gly Thr Leu Leu Gly Val Gly Glu Arg Cys Arg Met Ile Arg Met Ala
        355                 360                 365
Arg
```

<210> 37695
<211> 558
<212> PRT
<213> A.fumigatus

<400> 37695

```
Ala Asp Gly Glu Leu Asp Met Gly Thr Gly Ala Val Ser Cys Leu Thr
1               5                   10                  15
Cys Arg Thr Asn Glu Ser Arg Val Val Ala Leu Gly Tyr Asp Pro Ser
            20                  25                  30
Tyr Gly Ala Ser Arg Arg Leu Val Gln Tyr Thr Val Asn Tyr Leu Tyr
        35                  40                  45
Gly Pro Ser Ser Gly Leu Thr Ser Cys Pro Val Ala Met Thr Asp Gly
    50                  55                  60
Ala Ala Leu Ile Leu Ser Gln Gln Leu Gln Gln His Ala Phe Pro Glu
65                  70                  75                  80
Asp His Pro Phe Arg Val Val Phe Asn Arg Leu Thr Ser Arg Asn Glu
                85                  90                  95
Asp Phe Trp Thr Ser Gly Gln Trp Met Thr Glu Arg Ala Gly Gly Ser
            100                 105                 110
Asp Val Gln Asn Thr Glu Thr Trp Ala Thr His Asp Pro Val Pro Ala
        115                 120                 125
Ser Ser Thr Ala Ser Asn Asn Asn Ile Thr Asn Asn Asn Pro Leu Gly
    130                 135                 140
Thr Leu Gly Glu Gly Glu Tyr Ser Ile Ser Gly Phe Lys Phe Phe Ser
145                 150                 155                 160
Ser Ala Thr Asp Ala Asn Val Thr Leu Leu Leu Ala Lys Thr Ala Pro
                165                 170                 175
Ser Gly Lys Leu Ser Thr Phe Leu Ala Pro Leu Arg Arg Thr Ile Thr
            180                 185                 190
Gly Pro Asn Gln Ala Pro Arg Glu Val Thr Asn Gly Val Arg Ile His
        195                 200                 205
Arg Leu Lys Asn Lys Leu Gly Thr Lys Asp Leu Pro Thr Ala Glu Leu
    210                 215                 220
Glu Leu Arg Asp Met Arg Ala His Leu Val Gly Pro Arg Asp Lys Gly
225                 230                 235                 240
Val Ala Thr Ile Ala Pro Leu Leu Asn Val Thr Arg Thr His Thr Phe
                245                 250                 255
Ile Gly Ser Leu Gly Ala Trp Arg Arg Ala Leu Ser Ile Ala Arg Ala
            260                 265                 270
Phe Ser Arg Ala Arg Ser Thr Val Gly Glu Pro Leu Trp Leu Ile Pro
        275                 280                 285
Met His Leu Arg Leu Leu Ala Glu Val Glu Val Arg Gln Arg Ala Ala
    290                 295                 300
Met Gln Leu Gly Phe Phe Thr Val Ala Val Met Gly Val Val Glu Asn
305                 310                 315                 320
Pro Gly Asp Pro Gly Ala Ala Val Pro Ala His Val Pro Asn Gly Ala
                325                 330                 335
Asp Ala Thr Val Val Phe Arg Ala Leu Thr Ala Val Ser Lys Ala Val
```

```
            340                 345                 350
Ile Ser Lys Met Ala Ile Val Gly Ile Gln Glu Cys Gln Glu Ala Met
        355                 360                 365
Gly Gly Val Gly Tyr Met Asp Glu Pro Asp Glu Pro Glu Phe Asn Val
    370                 375                 380
Ser Arg Leu Leu Arg Asn Thr Ala Val Asn Ser Ile Trp Glu Gly Thr
385                 390                 395                 400
Thr Asn Val Leu Ala Ser Glu Met Val Arg Phe Leu Leu Ala Arg Glu
                405                 410                 415
Asn Phe Ala Val Phe Ala Ala Trp Val Glu Arg Val Leu Gly Met Ile
            420                 425                 430
Arg Gly Glu Arg Val Ala His Ala Leu Gly Met Ala Trp Thr Ala Phe
        435                 440                 445
Lys Gly Lys Ala Ala Arg Glu Val Ala Ser Val Leu Ala Asp Gly Arg
    450                 455                 460
Arg Val Met Phe Thr Leu Ala Trp Ile Leu Met Gly Ala Leu Leu Ala
465                 470                 475                 480
Leu Asp Ala Glu Arg Asp Gly Asp Ala Val Ala Ala Glu Val Ala Arg
                485                 490                 495
Arg Trp Val Leu Ala Gly Glu Gly Gly Val Gly Asp Thr Val His Arg
            500                 505                 510
Asp Ile Val Lys Pro Tyr Ala Ala Glu Ala Asp Ala Asp Glu Lys Glu
        515                 520                 525
His Ala Arg Trp Asp Cys Arg Ile Val Trp Gly Gln Glu Leu Pro Pro
    530                 535                 540
Ile Gln Gly Ala Gly His Arg Ser Leu Lys Thr Asn Lys Leu
545                 550                 555
```

<210> 37696
<211> 114
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (2),(92),(108)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37696

```
Ser Xaa Gly Lys Lys Arg Phe Arg Ala Gly Cys Gly Gly Pro Arg Thr
1               5                   10                  15
Gly Ser Gly Gly Asn Ser Leu Arg Arg Cys Arg Arg Ala Gly Asp Arg
            20                  25                  30
Trp Ser Cys Thr Pro Arg Lys Thr Gly Pro Cys Arg Ser Gly Cys Gln
        35                  40                  45
Ser Arg Pro Thr Arg Ala Gly Lys Thr Ser Leu Ser Arg Arg Leu Ile
    50                  55                  60
Val Arg Gly Ala Ala Gly Pro Pro Arg Lys Met Met Phe Ser Pro Glu
65                  70                  75                  80
Leu Cys Arg Ser Val Arg Cys Pro Gly Phe Ser Xaa Phe Gly Arg Met
                85                  90                  95
Gly Ile Cys Phe His Thr Asn Gln Leu Pro His Xaa Lys Pro Ser Trp
            100                 105                 110
Arg Asn
```

<210> 37697
<211> 252
<212> PRT
<213> A.fumigatus

<400> 37697
Arg Pro Val Ala Phe Asp Phe Arg Ile Arg Pro Trp Ser Gln Ser Arg
1 5 10 15
Gly Met Thr Thr Gln Val Arg Pro Gln Gly Glu Leu Arg Ser Tyr Asn
20 25 30
Ala Asn Leu Leu Ser Asn Gly Ser Leu Ile Asn Ser Cys Leu His Arg
35 40 45
Ile Ile Pro Thr Gly Tyr Lys Met Ser Gly Pro Ser Ser Arg Ala Thr
50 55 60
Ser Leu Phe Ser Ser Tyr Pro Ser Thr Pro Val Pro Ser Met Val Ser
65 70 75 80
Arg Asp Pro Asp Ser Leu Asp Ala Trp Ile Leu Gly Ser Gly Ile Ala
85 90 95
Ser Leu Thr Ala Ala Val His Leu Ile Arg Glu Ala Lys Val Pro Pro
100 105 110
Ser Arg Ile His Ile Leu Glu Thr Leu Ser Glu Pro Gly Ala Gly Ser
115 120 125
Val Ser Lys Gly Asp Ala Glu Ser Gly Tyr His Phe Arg Ala Glu Cys
130 135 140
Met Pro Gln Phe Cys Gly Asn Arg Met Glu Glu Leu Leu Ala Leu Val
145 150 155 160
Pro Ser Glu Arg Pro Gly Lys Thr Val Trp Asp Asp Ile Arg Glu Tyr
165 170 175
Phe Glu Glu His Val Ser Lys Lys Ala Ser Arg Thr Arg Phe Leu Ala
180 185 190
Arg Gln Lys Asn Gly Leu Glu Arg Ile Gly Arg Arg Arg Leu His Leu
195 200 205
Gly Val Lys Asp Arg Met Asp Leu Phe Arg Leu Ser Ser Arg Ala Glu
210 215 220
Asp Gly Leu Gly Arg Ser Arg Ile Gln Asp His Phe Ser Glu Gly Phe
225 230 235 240
Phe Arg Thr Glu Tyr Trp Leu Val Pro Ser Thr Leu
245 250

<210> 37698
<211> 360
<212> PRT
<213> A.fumigatus

<400> 37698
Leu Arg Tyr His Ala Arg Phe Gly Phe Arg Pro Cys His Ser Ala Val
1 5 10 15
Glu Phe Arg Arg Leu Ile Gln His Phe Pro His Asp Ile Gln Thr His
20 25 30
His Pro His Pro Leu Asp Arg Leu Arg Phe Asn Leu His Glu Ser Val
35 40 45
Val Ala Pro Val Ala Arg Phe Leu Gln Ala Gln Gly Val Asp Phe Arg
50 55 60
Phe Asn Thr Thr Thr Thr Asp Ile Ile Val Glu Pro Ala Gln Glu Pro
65 70 75 80
Thr Arg Val Thr Thr Leu Arg Thr Val Tyr Lys Arg Glu Arg Glu Val

```
                85                  90                  95
Thr Ile Asp Leu Gly Pro Gln Asp Ile Ile Ile Val Ser Leu Gly Ser
            100                 105                 110
Val Leu Ser Gly Ala Ser Tyr Gly Ser Asn Thr Lys Pro Pro Ser Leu
        115                 120                 125
Glu Met Met Glu Ile Glu Lys Asp Leu Asp Asp Asn Trp Leu Leu Trp
    130                 135                 140
Leu Glu Leu Ala Ser Lys His Pro Lys Phe Gly Asn Ala Tyr Asn Phe
145                 150                 155                 160
Cys Thr Arg Leu Arg Glu Ser Arg Val Ala Tyr Phe Thr Val Thr Ala
                165                 170                 175
Lys Asn Pro Ala Val Phe Glu Lys Met Leu Ala Ile Ile Gly Asp Asp
            180                 185                 190
Pro Ala Thr Gly Ser Leu Val Thr Leu Arg Asp Ser Ser Trp Leu Ile
        195                 200                 205
Thr Leu Asn Met Pro Arg Gln Pro Leu Phe Pro Asp Gln Pro Asp Gly
    210                 215                 220
Val Arg Val Phe Trp Gly Tyr Ala Leu Glu Pro Glu Asn His Gly Asp
225                 230                 235                 240
Phe Val Lys Lys Gln Met Leu Ser Cys Ser Gly Glu Glu Met Leu Thr
                245                 250                 255
Glu Val Leu His Gln Leu Asp Leu Pro Val Asp Glu Ile Leu Pro Gln
            260                 265                 270
Thr Ile Thr Val Pro Cys Val Met Pro Arg Leu Thr Ala Val Leu Leu
        275                 280                 285
Pro Arg Ser Asn Gly Asp Arg Pro Gln Val Val Pro Pro Gly Met Ser
    290                 295                 300
Asn Met Gly Leu Ile Gly Gln Phe Val Asp Ile Pro Asp Glu Met Val
305                 310                 315                 320
Thr Met Asp Tyr Met Val Arg Gly Ala Gln Met Ala Val His Gln Leu
                325                 330                 335
Met Gly Leu Glu Trp Glu Met Lys Lys Ser Lys Lys Gly Ser Thr Val
            340                 345                 350
Ser Leu Leu Gly Phe Pro Lys Asp
        355                 360
```

<210> 37699
<211> 142
<212> PRT
<213> A.fumigatus

<400> 37699

```
Pro Asn Ala Pro Ala Ala Ala Thr Ser Lys Thr Pro Lys Arg Gly Pro
1               5                   10                  15
Pro Thr Thr Leu Ser Arg Pro Pro Pro Gln Pro Ala Thr Thr Ile Ser
            20                  25                  30
Pro Thr Thr Thr Arg Ser Ala Pro Ser Glu Lys Ala Ser Thr Ala Ser
        35                  40                  45
Ala Ala Ser Asn Ser Ser Pro Pro Gln Pro Thr Pro Thr Ser Pro Ser
    50                  55                  60
Ser Ser Pro Arg Pro Pro Pro Arg Glu Asn Ser Ala Pro Ser Ser Arg
65                  70                  75                  80
Pro Ser Gly Ala Pro Ser Pro Ala Pro Thr Lys Pro Pro Ala Lys Ser
                85                  90                  95
Pro Thr Gly Ser Ala Ser Thr Ala Ser Arg Thr Ser Ser Gly Pro Arg
            100                 105                 110
```

```
Ile Ser Pro Pro Pro Ser Trp Ser Cys Gly Ile Cys Ala Arg Thr Ser
        115                 120                 125
Ser Gly Arg Ala Thr Arg Ala Ser Arg Arg Ser Arg Arg Cys
    130                 135                 140
```

<210> 37700
<211> 573
<212> PRT
<213> A.fumigatus

<400> 37700

```
Cys Val Phe Phe Ser Ile Leu Gln Asn Pro Asp Ser Lys Val Ala Asn
1               5                   10                  15
Ile Leu Leu Ala Val Tyr Tyr Leu Tyr Asp Ser Ser Arg His Ala Thr
            20                  25                  30
Thr Asp Pro Ala Phe Gly Ser Leu Tyr Lys Val Ala Met Thr Gln Tyr
        35                  40                  45
Thr Gln Lys Ala Phe Lys Leu Asp Lys Glu Asp Pro Met Thr Cys Ala
    50                  55                  60
Leu Phe Gly Ser Tyr Phe Leu Leu Arg Lys Ser Tyr Ser Thr Val Glu
65                  70                  75                  80
Thr Leu Ala Arg Lys Ala Ile Glu His Thr Asp Val Met Ala Ile Ala
                85                  90                  95
Ser Asp Gly Trp Tyr Leu Leu Gly Arg Lys Ala His Tyr Glu Gly Asp
            100                 105                 110
Leu Ala Arg Ala Ala Glu Tyr Tyr Ser Arg Ala Asp Gln Ala Arg Gly
        115                 120                 125
Gly Gly Asp Lys Gly Tyr Leu Pro Ala Lys Phe Gly Thr Val Gln Met
    130                 135                 140
Gln Val Ser Asn Gln Asn Tyr Asp Asp Ala Lys Phe Arg Leu Glu Lys
145                 150                 155                 160
Ile Ile Gln Gln Thr Lys Asn Pro Glu Cys Met Ile Leu Leu Gly Ala
                165                 170                 175
Leu His Ala Glu Glu Val Phe Ala Ala Gln Ala Ser Gly Ser Lys Glu
            180                 185                 190
Asp Lys Ser Ala Glu Ala Lys Lys Ala Ile Ser Leu Leu Glu Ser Val
        195                 200                 205
Arg Ser Leu Trp Lys Asp Glu Ala Lys Lys Val Ser Pro Asp Glu Ser
    210                 215                 220
Val Leu Val Tyr Leu Ser Arg Leu Tyr Glu Gln Val Ala Pro Glu Lys
225                 230                 235                 240
Ser Met Gln Cys Leu Thr Gln Leu Glu Glu Met Gln Leu Ala Glu Ile
                245                 250                 255
Ala Glu Glu Glu His Pro Glu Gly Ile Glu Asp Glu Glu Glu Leu Lys
            260                 265                 270
Ala Val Leu Arg Thr Asn Leu Pro Pro Gln Leu Leu Asn Asn Met Gly
        275                 280                 285
Cys Phe Met Tyr Gln Ala Asp Lys Val Glu Gln Ala Arg Thr Leu Phe
    290                 295                 300
Gln Ala Ala Leu Asn Ala Cys Val Arg Ser Gln Glu Lys Glu Ala Gln
305                 310                 315                 320
Leu Asp Thr Asp Ala Leu Val Thr Thr Ile Ser Tyr Asn Leu Gly Arg
                325                 330                 335
Ala Tyr Glu Ala Ser Asn Met Gln Asp Glu Ala Lys Lys Val Tyr Glu
            340                 345                 350
Gly Leu Leu Glu Arg His Ala Asp Tyr Thr Glu Ala Asn Ala Arg Leu
```

```
        355                 360                 365
Thr Tyr Ile Ala Leu Arg Gln Ser Pro Thr Asp Glu Gly Pro Lys Lys
    370                 375                 380
Met Ala Lys Leu Tyr Glu Ala Asp Ser Thr Asn Leu Glu Val Arg Ala
385                 390                 395                 400
Leu Phe Gly Trp Tyr Leu Ser Lys Ser Lys Lys Arg Ala Ala Asn Leu
                405                 410                 415
Ala Glu Asp His Glu Gln Arg His Tyr Lys His Thr Leu Gln Tyr Phe
            420                 425                 430
Asp Lys His Asp Arg Tyr Ser Leu Thr Gly Met Gly Asn Val His Leu
        435                 440                 445
Ala Thr Ala Arg Asp Met Arg Arg Asp Thr Asp Gln Asp Lys Glu Lys
    450                 455                 460
Arg Arg Lys Met Tyr Glu Arg Ala Val Glu Phe Phe Asp Lys Ala Leu
465                 470                 475                 480
Gln Leu Asp Pro Lys Asn Ala Tyr Ala Ala Gln Gly Ile Ala Ile Ala
                485                 490                 495
Leu Val Asp Asp Arg Lys Asp His Ala Ala Ala Val His Ile Phe Ser
            500                 505                 510
Lys Val Arg Asp Thr Leu Arg Asp Pro Ser Val Tyr Leu Asn Leu Gly
        515                 520                 525
His Val Tyr Ala Glu Leu Arg Gln Tyr Ser Arg Ser Ile Glu His Tyr
    530                 535                 540
Glu Ala Ala Leu Ser Lys Asp Arg Ala Arg Asp Ala Gln Ile Leu Ala
545                 550                 555                 560
Cys Phe Gly Arg Val Trp Leu Leu Lys Gly Lys Gln Glu
                565                 570
```

<210> 37701
<211> 268
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (13)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37701

```
Asn Leu Ser Ala Met Lys Thr Ala Leu Asp Tyr Ala Xaa Arg Ala His
1               5                   10                  15
Ala Val Ala Pro Thr Gln Val His Leu Glu Phe Asn Val Ala Phe Val
            20                  25                  30
Gln Asn Gln Ile Ala Ser Leu Ala Tyr Ser Leu Pro Glu Thr Gln Lys
        35                  40                  45
Thr Val Gln Asp Val Glu Glu Ala Ala Glu Gly Leu His Gln Ala Ile
    50                  55                  60
Glu Thr Phe Gly Arg Ile Ala Lys Val Lys Asn Pro Pro Tyr Pro Ala
65                  70                  75                  80
Gly Ala Leu Glu Gln Arg Ala Asn Met Gly Lys Thr Ile Ile Lys Gln
                85                  90                  95
Leu Glu Arg Ala Leu Gln Ser Gln Lys Glu Tyr Glu Glu Lys Asn Ala
            100                 105                 110
Ala Lys Leu Gln Gln Ala Arg Glu Ala Arg Glu Ala Glu Ile Arg Lys
        115                 120                 125
Arg Glu Glu Glu Val Arg Lys Ala Gln Glu Ala Glu Gln Glu Arg Lys
```

```
    130                 135                 140
Lys Lys Leu Ala Glu Glu Arg Gln Arg Met Ile Glu Glu Ala Gln Arg
145                 150                 155                 160
Leu Ala Glu Gln Arg Ala Glu Glu Glu Arg Ala Arg Glu Glu Ala Glu
                165                 170                 175
Met Thr Val Asp Ser Ala Thr Gly Asp Lys Val Arg Arg Met Lys Lys
            180                 185                 190
Thr Ser Val Glu Ala Gln Glu Glu Glu Ala Glu Asp Asp Phe Ile Ser
        195                 200                 205
Asp Gly Glu Thr Ser Arg Arg Thr Val Ser Gly Glu Pro Gly Ile Glu
    210                 215                 220
Gly Glu Ala Ala Pro Lys Lys Pro Lys Arg Leu Glu Arg Arg Ser Gly
225                 230                 235                 240
Gly Lys Ala His Ser Lys Tyr Lys Ser Ile Glu Ile Val Glu Asp Pro
                245                 250                 255
Asp Val Gly Asp Asp Val His Tyr Ala Ala Ala Gly
            260                 265
```

<210> 37702
<211> 270
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (21),(24),(28),(53),(74)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37702

```
His Trp Trp Lys Ser Leu Lys Gly Ser Lys Arg Pro Glu Arg Gly Phe
1               5                   10                  15
Lys Ala Gly Asn Xaa Lys Ala Xaa Leu Ser Phe Xaa Val Thr Cys Asn
            20                  25                  30
Met Val Gln Leu Leu Leu Tyr His Tyr Phe Tyr Asp Pro Val Asp Arg
        35                  40                  45
Ser Pro Leu Tyr Xaa Ile Asn Lys Asp Tyr Tyr Tyr Ser Asn Met Ala
    50                  55                  60
Leu Thr Lys Gln Ser Phe Gly Leu Val Xaa Thr Ala Leu Thr Glu Trp
65                  70                  75                  80
Gly Cys Pro Thr Tyr Val Arg Val Ser Gly Asp Glu Ser Val Arg Gly
                85                  90                  95
Gln Ile His Leu Cys Lys Asp Gly Arg Leu Lys Thr Gln Phe Pro Glu
            100                 105                 110
Arg Leu Val Leu Ile Ala Asn His Gln Val Tyr Thr Asp Trp Ile Tyr
        115                 120                 125
Leu Trp Trp Ile Ala Tyr Thr Asn Gln Met His Gly Arg Ile Phe Ile
    130                 135                 140
Ile Leu Lys Glu Ser Leu Lys Tyr Ile Pro Ile Ile Gly Gln Gly Met
145                 150                 155                 160
Thr Phe Tyr Gly Phe Ile Phe Met Ala Arg Lys Trp Leu Ser Asp Lys
                165                 170                 175
Pro Arg Leu Gln His Arg Leu Glu Lys Leu Lys Thr Gln Thr Ser Gly
            180                 185                 190
Ser Glu Ser Glu Ser Pro Gln Tyr Asp Pro Met Trp Leu Leu Ile Phe
        195                 200                 205
Pro Glu Gly Thr Asn Leu Ser Pro Asn Thr Lys Arg Arg Ser Asp Glu
```

```
    210                 215                 220
Tyr Gly Arg Lys Gln Gly Leu Pro Pro Leu Lys His Glu Leu Leu Pro
225                 230                 235                 240
Arg Ser Thr Gly Leu Leu Phe Cys Leu Gln Gln Leu Lys Gly Thr Val
                245                 250                 255
Asp Trp Val Tyr Asp Cys Ser Val Ala Tyr Glu Gly Pro Pro
            260                 265                 270
```

<210> 37703
<211> 138
<212> PRT
<213> A.fumigatus

<400> 37703

```
His Leu Pro Phe Thr Asn Cys Arg Lys Gly Ser Tyr Pro Asp Lys Tyr
1               5                   10                  15
Phe Thr Leu Arg Ser Thr Tyr Leu Gln Gly Arg Pro Pro Thr Ser Val
            20                  25                  30
Asn Met Tyr Trp Arg Arg Phe Ala Met Ser Asp Ile Pro Leu Asp Asp
        35                  40                  45
Gln Lys Glu Phe Asp Ser Trp Leu Arg Ala Arg Trp Thr Glu Lys Asp
    50                  55                  60
Glu Leu Leu Asp Glu Phe Phe Glu Thr Gly Arg Phe Pro Thr Ala Leu
65                  70                  75                  80
Ala Gly Ser Ile Asp Ala Gly Asn Val Ser Asp Val Gln Ile Glu Ala
                85                  90                  95
Ala Ser Lys Gly Phe Val Glu Thr His Val Arg Leu His His Trp Thr
            100                 105                 110
Glu Leu Gly Arg Ile Phe Met Val Leu Thr Gly Met Ala Val Leu Cys
        115                 120                 125
Arg Leu Pro Lys Val Phe Gly Leu Trp Asp
    130                 135
```

<210> 37704
<211> 295
<212> PRT
<213> A.fumigatus

<400> 37704

```
Lys Ser Ile Met Thr Ser Leu Glu Asn Gly Tyr Val Asn Gly Asn Ser
1               5                   10                  15
Phe Pro Ser Ala Ser Ser Gln Val Asn Leu Arg Phe Ser Asp Ile Pro
            20                  25                  30
Ser Ala Ile Asp Ile Pro Ala Ser Thr Leu Asp Ser Glu Val Glu Val
        35                  40                  45
Ser Leu Glu Gly Leu Pro Asp Asp Pro Thr Glu Leu Cys Thr Leu Leu
    50                  55                  60
Glu Asn Glu Lys Ala Ala Lys Asn Phe Trp Val Ile Ile Ala Leu Ala
65                  70                  75                  80
Tyr Ala Lys Gln Lys Gln Leu Asp His Ala Ile Asp Ile Leu Asn Lys
                85                  90                  95
Gly Leu Ala Ser Val Gly His Gly Ala Ala Lys Glu Lys Leu Gly Leu
            100                 105                 110
Leu Gly Trp Val Cys Trp Leu Leu Met Leu Lys Ser Arg Gln Ala Pro
        115                 120                 125
Arg Val Ala Ser Glu Gly Glu Leu Tyr Thr Glu Ala Lys Thr Lys Asp
```

```
    130                 135                 140
Tyr Tyr Leu Gln Leu Ala Thr Ser Thr Leu Asn Glu Ala Ser Arg Leu
145                 150                 155                 160
Asn Pro Ala Phe Pro Pro Leu Phe Leu Ala Arg Gly Val Leu Cys Leu
                165                 170                 175
Leu Arg Ala Ser Leu His Pro Pro Arg Pro Val Arg Pro Gly Ser Val
            180                 185                 190
Asp Thr Ser Glu Arg Val Glu Ser Leu Arg Gln Ala Leu Lys Cys Phe
        195                 200                 205
Glu Glu Ser Ser Lys Ala Phe Gly Gly Arg Asn Val Met Ala Ile Leu
    210                 215                 220
Gly Arg Ser Arg Ala Gln Tyr Leu Leu Gly Arg Tyr Ala Glu Ala Leu
225                 230                 235                 240
Glu Gly Tyr Gln Lys Val Leu Met Lys Met Pro Gly Leu Thr Asp Pro
                245                 250                 255
Asp Pro Arg Ile Gly Ile Gly Cys Cys Leu Trp Gln Leu Gly Phe Lys
            260                 265                 270
Asp Gln Ala Lys Val Ala Trp Glu Arg Ala Leu Ala Val Val Ser Tyr
        275                 280                 285
Ala Arg Leu Leu Gly Val Ser
    290                 295
```

<210> 37705
<211> 202
<212> PRT
<213> A.fumigatus

<400> 37705

```
Cys Thr Ser Ser Pro Thr Ser Gly Ser Ser Thr Ile Ser Met Leu Leu
1               5                   10                  15
Tyr Leu Leu Cys Ala Leu Pro Pro Asp Arg Arg Ser Ser Arg Leu Gly
            20                  25                  30
Phe Phe Gly Ala Ala Ser Pro Ser Met Pro Gly Ser Pro Leu Thr Val
        35                  40                  45
Arg Arg Asp Val Ser Pro Ser Leu Met Lys Ser Ser Ser Ala Ser Ser
    50                  55                  60
Ser Cys Ala Ser Thr Asp Val Phe Phe Ile Arg Leu Thr Leu Ser Pro
65                  70                  75                  80
Val Ala Glu Ser Thr Val Ile Ser Ala Ser Ser Arg Ala Leu Ser Ser
                85                  90                  95
Ser Ala Arg Cys Ser Ala Ser Arg Trp Ala Ser Ser Ile Ile Arg Cys
            100                 105                 110
Arg Ser Ser Ala Ser Phe Phe Phe Arg Ser Cys Ser Ala Ser Cys Ala
        115                 120                 125
Phe Arg Thr Ser Ser Ser Arg Leu Arg Ile Ser Ala Ser Arg Ala Ser
    130                 135                 140
Arg Ala Cys Cys Ser Phe Ala Ala Phe Phe Ser Ser Tyr Ser Phe Trp
145                 150                 155                 160
Leu Cys Ser Ala Arg Ser Asn Cys Leu Met Ile Val Leu Pro Met Leu
                165                 170                 175
Ala Arg Cys Ser Ser Ala Pro Ala Gly Tyr Gly Gly Phe Phe Thr Leu
            180                 185                 190
Ala Met Arg Pro Lys Val Ser Ile Ala Trp
        195                 200
```

<210> 37706

<211> 115
<212> PRT
<213> A.fumigatus

<400> 37706
Ser Arg Asn Ser Ser Gly Thr His Gly Gly Pro Ser Tyr Ala Thr Leu
1 5 10 15
Gln Ser Tyr Thr Gln Ser Thr Val Pro Phe Ser Cys Cys Arg Gln Asn
20 25 30
Ser Arg Pro Val Asp Arg Gly Arg Ser Ser Cys Phe Arg Gly Gly Ser
35 40 45
Pro Cys Phe Arg Pro Tyr Ser Ser Leu Leu Arg Phe Val Phe Gly Asp
50 55 60
Arg Leu Val Pro Ser Gly Lys Ile Arg Ser His Met Gly Ser Tyr Cys
65 70 75 80
Gly Asp Ser Asp Ser Glu Pro Asp Val Trp Val Leu Ser Phe Ser Lys
85 90 95
Arg Cys Cys Arg Arg Gly Leu Ser Asp Ser His Leu Arg Ala Met Lys
100 105 110
Met Lys Pro
115

<210> 37707
<211> 117
<212> PRT
<213> A.fumigatus

<400> 37707
Lys Ile Ile Leu Ala His Leu Leu Arg Gln Pro Phe Pro Tyr Trp Thr
1 5 10 15
Val Gln Leu Thr Pro Leu Ile Gly Gly Ala Ile Leu Ala Asn Leu Pro
20 25 30
His Leu Gly Leu Pro Ala Val Ser Ala Trp Val Glu Leu Leu Tyr Leu
35 40 45
Arg Ala Tyr Leu Leu Phe Ala Phe Val Ala Tyr Met His Trp Ala Phe
50 55 60
Leu Val Ile Asn Arg Ile Thr Thr Phe Leu Gly Ile Asn Cys Leu Thr
65 70 75 80
Ile Lys Lys Asp Arg Ser Met Ala Arg Glu Gln Ala Tyr Arg Asn Phe
85 90 95
Gly Glu Ser Leu Leu Glu Val Pro Asp Ala Thr Asp Pro Leu Lys Gly
100 105 110
Gly Leu Lys His His
115

<210> 37708
<211> 87
<212> PRT
<213> A.fumigatus

<400> 37708
Ser Arg Phe Arg Ile Ile Leu Trp Ser Met Ile Ser Asp Leu Ile Ser
1 5 10 15
Ser Ile Leu Trp Ser Ala Lys Gln Ala Leu Arg Met Ile Asp Arg Leu
20 25 30
Arg Ile Gln Ala Leu Ala Tyr Asp Thr Lys Gly Leu Tyr Met Ser Val

```
        35                  40                  45
Gly Phe Pro Leu Arg Ser Val Val Thr Thr Leu Cys Phe Ala Asn Trp
    50                  55                  60
Gly Tyr Ile Leu Ser Ser Met Thr Ser Asp Phe Thr Ser Leu Val Met
65                  70                  75                  80
Ala Tyr Ala Thr Pro Ile Asn
                85
```

<210> 37709
<211> 222
<212> PRT
<213> A.fumigatus

<400> 37709

```
Arg Pro Gly Glu Glu Asp Gly Arg Tyr His Arg Thr Asp Ser Arg Ser
1               5                  10                  15
Ser Ser Ala Tyr Leu Gln Glu Asp Cys Arg Gly Lys Leu Thr Leu His
            20                  25                  30
Pro Tyr Val Ile Arg Asp Asn Leu Leu Thr Gly Leu Ser Gln Leu Leu
        35                  40                  45
Glu Lys Ala Asp Arg Thr Pro Arg Asp Glu Leu Asp Glu Glu Lys Leu
    50                  55                  60
Val Lys Glu Val Arg Pro Leu Ile Glu Glu Gly Gly Gln Val Leu Gln
65                  70                  75                  80
Glu Cys Asn Gly Ala Ile Arg Ala Leu Asp Pro Asp Gly Ser Ile Ala
                85                  90                  95
Ser Thr Ala Lys Ala Arg Ala Ala Ser His Glu Ala Ser Pro Glu Glu
            100                 105                 110
Tyr Ala Leu Ala Glu Lys Ile Lys Glu Leu Ser Glu Leu Val Met Thr
        115                 120                 125
Thr Ile Glu Asn Gly Arg Lys Arg Ile Ala Asp Met Pro His Ala Lys
    130                 135                 140
Lys Lys Ile Asn Pro Leu Trp Ala Leu Leu Ser Asp Pro Leu Phe Gln
145                 150                 155                 160
Ile Ile Ala Ala Val Gly Leu Leu Leu Ser Gly Val Leu Gly Leu Val
                165                 170                 175
Gly Arg Leu Leu Asp Thr Leu Gly Leu Gly Pro Leu Leu Asn Gly Leu
            180                 185                 190
Leu Gly Gly Leu Gly Leu Asp Lys Leu Leu Gly Gly Leu Gly Leu Ser
        195                 200                 205
Ser Leu Thr Asp Ser Leu Gly Ile Thr Gly Ser Lys Lys Asp
    210                 215                 220
```

<210> 37710
<211> 682
<212> PRT
<213> A.fumigatus

<400> 37710

```
Ala Asp Asp Ala Val Glu Gln Ala Lys Asp Lys Ala Glu Glu Thr Thr
1               5                  10                  15
Glu Gln Ala Lys Lys Thr Val Thr Asp Leu Ala Asp Leu Asp Gly Leu
            20                  25                  30
Pro Val Ser Glu Gly Gly Val Ile Lys Asp Lys Ser Gly Gln Val Val
        35                  40                  45
Ala Lys Ile Ala Glu Gly Asp Ala Glu Asp Leu Val Gly Tyr Thr Leu
```

```
    50                  55                  60
Asn Asn Glu Gly Glu Val Leu Asp Glu Asp Gly Asp Pro Ile Gly Arg
65                  70                  75                  80
Ala Glu Ile Val Ser Gln Gln Ala Lys Asp Ala Thr Asp Gly Phe Asp
                85                  90                  95
Asp Thr Glu Lys Leu Ala Pro Glu Asp Gln Ser Thr Gln Glu Asp Val
            100                 105                 110
Ala Lys Gln Ala Val Glu Ser Val Gln Gln Gln Asp Val Asp Asp Thr
        115                 120                 125
Ala Glu Lys Ala Glu Ser Ala Ala Asp Asp Thr Lys Glu Glu Ala Glu
    130                 135                 140
Glu Gln Leu Pro Pro Leu Ser Ser Leu Glu Gly Met Lys Cys Thr Lys
145                 150                 155                 160
Ser Gly Lys Ile Val Asp Pro Asp Thr Gly Lys Pro Ile Gly Glu Leu
                165                 170                 175
Val Glu Gly Asp Ala Lys Lys Ile Ser Arg Met Ser Ala Gln Leu Asp
            180                 185                 190
Asp Lys Gly Gln Phe Trp Asp Asn Arg Gly Asn Val Ile Gly Lys Ala
        195                 200                 205
Lys Ser Leu Pro Val Glu Asp Tyr Glu Gly Glu Pro Pro Phe Ala Gly
    210                 215                 220
Leu Glu Gly Leu His Val Val Glu Asp Gly Trp Val Glu Asp Glu Asn
225                 230                 235                 240
Gly Lys Arg Val Gly Lys Ile Val Gln Gly Asp Pro Lys Lys Leu Leu
                245                 250                 255
Gly Arg Ala Val Asp Glu Asp Gly Asp Ile Thr Asp Lys Asn Gly Asn
            260                 265                 270
Val Ile Ala Gln Ala Glu Tyr Tyr Glu Ser Pro Asp Glu Pro Glu Pro
        275                 280                 285
Glu Lys Pro Asp Leu Ser Gln Leu Asn Gly Leu Lys Pro Asn Lys Leu
    290                 295                 300
Gly Phe Val Ile Gly Pro Asp Gly Val Pro Ile Ala Arg Val Val Glu
305                 310                 315                 320
Gly Asn Pro Lys Glu Leu Ala Gly Lys Glu Ile Asp Asp Gly Gln Ile
                325                 330                 335
Trp Asp Gly Arg Lys Pro Ile Gly Arg Val Glu Leu Ile Pro Glu Glu
            340                 345                 350
Glu Arg Asp Lys Lys Pro Glu Gly Val Phe Ala Gly Leu Asp Asn Leu
        355                 360                 365
Val Val Asn Lys Glu Gly Phe Val Glu Asp Asp Glu Gly Asn Ile Val
    370                 375                 380
Gly Lys Val Thr Glu Gly Asp Pro Lys Lys Leu Arg Gly Arg Ala Val
385                 390                 395                 400
Asp Glu Asp Gly Asp Ile Ile Asp Lys Tyr Gly Asn Val Lys Gly His
                405                 410                 415
Ala Glu Pro Tyr Glu Pro Glu Glu Glu Glu Glu Glu Lys Pro Asp Leu
            420                 425                 430
Ser Val Leu Glu Gly Lys Ile Val Asn Lys Ala Gly Asn Val Val Asp
        435                 440                 445
Ala Gln Gly Asn Ile Tyr Gly Arg Ile Val Ser Gly Asp Gly Lys Arg
    450                 455                 460
Leu Ala Gly Arg Lys Val Asp Gly Gln Gly Gln Ile Trp Gly Asp Asn
465                 470                 475                 480
Gly Asn Val Ile Gly Arg Ala Glu Ile Val Pro Gly Ala Glu Gln Glu
                485                 490                 495
Lys Pro Glu Gly Gln Phe Tyr Gly Phe Asp Asn Val Glu Val Gly Lys
```

```
            500                 505                 510
Asp Gly Phe Val Met Ala Gly Gly Arg Ile Ile Gly Arg Val Ile Glu
        515                 520                 525
Gly Asp Ala Lys Arg Leu Leu Gly Arg Lys Val Asp Glu Asp Gly Asp
    530                 535                 540
Ile Leu Asp Lys Asn Gly Asn Ile Ile Gly Lys Ala Glu Arg Trp Glu
545                 550                 555                 560
Pro Glu Glu Lys Lys Arg Asp Val Asn Pro Met Ser Gly Arg Lys Val
                565                 570                 575
Asn Lys Glu Gly Glu Ile Arg Asp Ala Asp Gly Asn Leu Ile Gly Lys
            580                 585                 590
Leu Thr Thr Gly Asn Leu Pro Thr Leu Val Gly Lys Ser Ile Asp Asp
        595                 600                 605
Asn Gly Tyr Val Val Asp Asn Asp Gly Asn Lys Leu Gly Glu Cys Thr
    610                 615                 620
Leu Leu Glu Asn Leu Pro Glu Glu Glu Glu Leu Glu Pro Gly Leu Thr
625                 630                 635                 640
Gln Glu Glu Ser Glu Ala Gln Lys Lys Ala Glu Gln Asp Arg Asp Leu
                645                 650                 655
Ala Lys Lys Met Ala Gly Ile Ile Gly Gln Thr Leu Asp Arg Leu Gln
            660                 665                 670
Pro Thr Cys Lys Arg Ile Ala Glu Val Ser
        675                 680

<210> 37711
<211> 205
<212> PRT
<213> A.fumigatus

<400> 37711
Pro Arg Ala Thr Pro Arg Ser Ser Gly Ala Ala Pro Ser Met Lys Met
1               5                   10                  15
Glu Thr Ser Ser Thr Ser Thr Ala Thr Leu Lys Gly Met Pro Ser Leu
            20                  25                  30
Thr Ser Gln Lys Arg Arg Arg Lys Arg Ser Arg Ile Phe Pro Ser Trp
        35                  40                  45
Arg Glu Arg Ser Ser Thr Arg Leu Ala Thr Ser Leu Thr Pro Arg Ala
    50                  55                  60
Thr Ser Thr Asp Val Ser Phe Pro Glu Met Val Ser Ala Ser Leu Ala
65                  70                  75                  80
Glu Arg Trp Thr Ala Arg Val Lys Ser Gly Val Thr Met Glu Met Ser
                85                  90                  95
Leu Ala Glu Gln Arg Ser Ser Arg Val Gln Ser Arg Arg Ser Pro Lys
            100                 105                 110
Asp Ser Ser Thr Asp Ser Thr Met Trp Lys Leu Ala Lys Met Ala Leu
        115                 120                 125
Ser Trp Pro Ala Ala Val Ser Ser Ala Val Ser Ser Lys Ala Met Pro
    130                 135                 140
Asn Asp Ser Leu Val Val Arg Ser Thr Lys Thr Glu Thr Phe Ser Thr
145                 150                 155                 160
Arg Met Ala Thr Ser Ser Ala Arg Leu Asn Ala Gly Ser Gln Arg Arg
                165                 170                 175
Arg Ser Val Met Ser Thr Pro Cys Leu Ala Glu Arg Ser Thr Lys Arg
            180                 185                 190
Ala Arg Ser Val Met Leu Thr Val Ile Ser Leu Ala Asn
        195                 200                 205
```

<210> 37712
<211> 99
<212> PRT
<213> A.fumigatus

<400> 37712
Ala Leu Val Ile Gly Cys Cys Asn Ile Gly Gly Thr Arg Pro Val Arg
1 5 10 15
Asp Arg Val Pro Glu Tyr Phe Gln Phe Ser Leu His Phe Arg Asp His
20 25 30
Met Glu Ile Tyr Gln Asp Ala Met Ile Gln Leu Arg Glu Cys Ser Ile
35 40 45
Leu Arg Val Asn Pro Asn Asn Ser Ser Ala Ile Tyr Trp Thr Asn Tyr
50 55 60
Asp Gly Gln Lys Ser Gly Ser His Met Phe Glu Val Leu Ile Gly Phe
65 70 75 80
Thr Cys Pro Asn Pro Leu Ala His Phe His Tyr Asp Val Lys Asn Ile
85 90 95
Gly Met Lys

<210> 37713
<211> 141
<212> PRT
<213> A.fumigatus

<400> 37713
Thr Trp Gly Trp Met Met Glu Thr Met Ile Thr Asp Ser Glu Ser Gly
1 5 10 15
Met Ala Ile Leu His Arg Tyr Ser Val His Gln Arg Met Glu Asn Asp
20 25 30
Ala Ser Phe Asp Leu Ile Asp Met Ala Lys Lys Tyr Gly Val Leu Tyr
35 40 45
Leu Gly Thr Ala Trp Gly Asp Phe Asp Gln Ala Leu Ser Pro Leu Arg
50 55 60
Tyr Tyr Pro Thr Cys Thr Pro Tyr Val Ser Ser Leu Gly Pro Ser Cys
65 70 75 80
His Phe Ala Ala Asp Lys Thr Thr Thr Lys Phe Ser Lys Phe Phe Ala
85 90 95
Ala Leu Glu Cys Asp Val Phe Asp Gly Ser Pro Phe Thr Tyr Glu Gly
100 105 110
Val His Ser Lys Arg Pro Ser Cys Val Ser Val Asn Ser Asn Ser Ser
115 120 125
Asp Asp Asp Gly Asn Lys Tyr Phe Val Thr Leu Ser Tyr
130 135 140

<210> 37714
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37714
Lys Thr Trp Leu Ser Ser Pro Ile Ser Gly Pro Lys Arg Tyr Asp Trp
1 5 10 15
Val Leu Glu Gly Asp Gln Met His Glu Lys Gln Asp Thr Arg Pro Phe

```
            20                  25                  30
Gly Asn Gly Gln Trp Ile Tyr Leu Arg Asp Gly Ser Asn Leu Thr Asp
        35                  40                  45
Leu Leu Asn Ala Glu Leu Ser Leu Asn Ile Ala Lys Asp Val Tyr Ser
    50                  55                  60
Glu Phe Glu Lys
65
```

<210> 37715
<211> 503
<212> PRT
<213> A.fumigatus

<400> 37715

```
Asn Leu Asp Leu Pro Pro Val Val Lys Thr Pro Lys Arg Thr Lys Leu
1               5                   10                  15
Glu Asp Glu Gly Ser Ala Glu Val Lys Leu Pro Asp Leu Pro Thr Pro
            20                  25                  30
Val Thr Glu Thr Pro Ala Arg Thr Thr Val Asn Gly Glu Ala Thr Met
        35                  40                  45
Thr Lys Val Gln His Lys Phe Val Leu Lys Gly Ile Gln Ser Leu Lys
    50                  55                  60
Arg Met Asn Asp Ala Arg Phe Tyr Arg Glu Pro Val Asp Pro Ile Lys
65                  70                  75                  80
Met Asn Ile Pro His Tyr Pro Gln Ile Ile Lys His Pro Met Asp Leu
                85                  90                  95
Gly Thr Ile Glu Arg Lys Leu Lys Asn Asn Glu Tyr Lys Thr Ala Gln
            100                 105                 110
Ala Val Val Asp Asp Phe Asn Leu Met Val Gln Asn Ala Val Thr Phe
        115                 120                 125
Asn Gly Pro Asp His Leu Val Ser Gln Glu Gly Leu Lys Leu Lys Gly
    130                 135                 140
Thr Phe Glu Lys Gln Met Met Asn Leu Pro Lys Ala Asp Glu Val Glu
145                 150                 155                 160
Glu Lys Lys Pro Lys Lys Val Ser Thr Lys Thr Ser Ala Ala His Arg
                165                 170                 175
Glu Pro Arg Thr Ser Ile Gly Thr Ser Thr Ala Arg Pro Thr Ala Ala
            180                 185                 190
Ser Pro Gln Ala Thr Thr Phe Ala Leu Gly Pro Glu Gly Leu Pro Leu
        195                 200                 205
Ile Arg Arg Asp Ser Thr Asn Thr Asp Gly Arg Pro Lys Arg Ser Ile
    210                 215                 220
His Pro Pro Lys Arg Asp Leu Pro Tyr Ser Thr Lys Pro Lys Lys Lys
225                 230                 235                 240
Lys Tyr Gln Trp Glu Leu Arg Phe Cys Gln Glu Val Leu Asp Glu Leu
                245                 250                 255
His Lys Pro Lys His Tyr Asn Trp Ala Ala Pro Phe Tyr Phe Pro Val
            260                 265                 270
Asp Pro Val Ala Leu Asn Ile Pro Thr Tyr His Ser Ile Ile Lys Lys
        275                 280                 285
Pro Met Asp Leu Ser Thr Val Gln Ser Lys Leu Lys Thr Gly Gln Tyr
    290                 295                 300
Glu Asn Ala Lys Glu Phe Glu Val Asp Met Arg Gln Ile Phe Lys Asn
305                 310                 315                 320
Cys Phe Lys Phe Asn Ile Pro Gly Asp Pro Thr Tyr Met Ala Gly Gln
                325                 330                 335
```

```
Arg Phe Gln Glu Ile Phe Glu Asn Lys Trp Ala Gln Lys Thr Arg Tyr
            340                 345                 350
Leu Glu Ala His Glu Pro His Pro Glu His Gln Ser Val Ser Ser Ser
        355                 360                 365
Ser Glu Glu Ser Glu Glu Glu Glu Asp Glu Ser Asp Thr Asp Asn Glu
    370                 375                 380
Lys Leu Thr Met Leu Gln Lys Gln Ile Ala Glu Met Ser Arg Gln Val
385                 390                 395                 400
Glu Ala Ile Thr Gln Lys Lys Lys Lys Thr Pro Pro Gly Ser Lys Lys
                405                 410                 415
Pro Gly Lys Ser Lys Ser Gly Lys Lys Asp Ser Lys Lys Ser Gly Thr
            420                 425                 430
Ile Pro Leu Gly Lys Lys Asp Lys Lys Ala Ser Ser Lys Ser Ser Lys
        435                 440                 445
Pro Glu Lys Gln Arg Tyr Val Thr Tyr His Glu Lys Gln Ile Ile Ser
    450                 455                 460
Asn Gly Ile Ser Ser Leu Pro Asp Lys Lys Met Gln Glu Ala Leu Lys
465                 470                 475                 480
Ile Ile Gln Ser Asn Val Pro Ala Leu Lys Val Ser Phe Asp Leu Arg
                485                 490                 495
Leu Ile Ser Lys Cys Arg Cys
            500
```

<210> 37716
<211> 121
<212> PRT
<213> A.fumigatus

```
<400> 37716
Ser Gln Asn Val Gly Ala Asn Val Ser Phe Gln Gly Thr Gln Glu Thr
1               5                   10                  15
Glu Ile Glu Leu Asp Ile Asp Glu Leu Pro Asn Glu Val Leu Leu Met
            20                  25                  30
Leu Leu Lys Phe Val Lys Lys Asn Ala Pro His Val Ile Glu Glu Glu
        35                  40                  45
Asp Met Thr Ala Ser Thr Ala Ala Asn Met Ala Ala Pro Lys Pro Lys
    50                  55                  60
Lys Asn Lys Pro Met Ser Lys Tyr Glu Gln Glu Ala Gln Ile Asn Met
65                  70                  75                  80
Leu Glu Ser Asn Leu Ser Arg Phe Gln Gly Gly Gly Gly Arg Ser Pro
                85                  90                  95
Asp Pro Leu Pro Ser Val Glu Ala Asn Glu Ser Ser Asp Asp Ser Glu
            100                 105                 110
Asp Asp Ser Glu Glu Ser Glu Glu Glu
        115                 120
```

<210> 37717
<211> 84
<212> PRT
<213> A.fumigatus

```
<400> 37717
Ser Asp Leu Ser Ile His Thr Asn Phe Gly Thr Thr Ile Pro Trp Ser
1               5                   10                  15
Leu Pro His Leu Arg Pro Lys Val Arg Met Thr Arg Tyr Gly Gly Met
            20                  25                  30
```

```
Gly Arg Thr Arg Pro Lys Lys Leu Thr Ser Lys Ala Ser Ile Pro Ile
        35                  40                  45
Val Arg Glu His Glu Ile Asp Ile Ile Asp Asp Glu Val Gln Asn Ala
    50                  55                  60
Leu Gln Gln Val Glu Thr Gly Val Glu Lys Ala Glu Glu Ser Val Ser
65                  70                  75                  80
Val Ser Pro Asn
```

<210> 37718
<211> 562
<212> PRT
<213> A.fumigatus

<400> 37718

```
Glu Phe His Leu Gln Ala Ala Ile Ser Ala Thr Ala Gln Gly Lys Val
1               5                   10                  15
Asn Glu Ala His Ile Pro Thr Pro Glu Thr Val Leu Ser Asn Leu Arg
            20                  25                  30
Tyr Asp Glu Leu Tyr Pro Pro Ile Phe Ser Gln Pro Ala Thr Tyr Ile
        35                  40                  45
Arg Phe Ser Ser Thr Val Glu Asp Cys Cys Gly Cys Pro Tyr Asn Met
    50                  55                  60
Thr Glu Glu Asp Asp Val Phe Phe Lys Ile Met Asn Glu Lys Arg Glu
65                  70                  75                  80
Pro Ser Asn Arg Ile Thr Glu Asp Gln Phe Glu Glu Val Met Tyr Phe
                85                  90                  95
Phe Glu Glu Thr Ala Gln Thr Lys Gln Pro Phe Ala Ala Val Asp Ser
            100                 105                 110
Pro Pro Val Leu Ser Phe Ala Glu Met Gln Asp Ser Met Asp Ala Thr
        115                 120                 125
Val Glu Glu Ser Val Lys Cys Phe Ala Lys Asp Ile Tyr Glu His Trp
    130                 135                 140
Lys Leu Arg Arg Ile Ala Thr Gly Asn Arg Pro Leu Leu Pro Ser Leu
145                 150                 155                 160
Lys Val Ser Arg Pro His Arg Met Thr Pro Tyr Phe Pro Arg Leu Thr
                165                 170                 175
Met Ser Ser Leu Lys Leu Val Lys Ile Pro Met Ile Gln Thr Arg Met
            180                 185                 190
Ser Ala Phe Val Gly Val Lys Ser Val Arg Phe Gly Arg Pro Ala Ala
        195                 200                 205
Glu Met Pro Lys Val Pro Thr Asn Cys Ala Asp Ser Glu Arg Ser Trp
    210                 215                 220
Lys Met Leu Asp Ser Trp Phe Ala Leu Val Arg Gln Arg Glu Leu Ala
225                 230                 235                 240
Arg Lys Glu Met Leu Ser Met Glu Arg Gln Ile Phe Leu Gln Arg Ser
                245                 250                 255
Glu Val Lys Glu Met Lys Arg Lys Leu Asn Ile Lys Asp Asp Asp Glu
            260                 265                 270
Asp Leu Ile Asn Gln Lys Val Thr Ser Ile Pro Ala Arg Leu Pro His
        275                 280                 285
Ala Phe Ala Asn Leu Pro Glu Gln Pro Lys Lys Lys Pro Ala Glu Ala
    290                 295                 300
Pro Ala Ala Gln Arg Pro Thr Ala Pro Gln Ile Arg Met Pro Gln Lys
305                 310                 315                 320
Pro Gly Thr Gln Ala Ala Asp Asp Met Gln Leu Leu Glu Asp Val Gln
```

```
                325                 330                 335
Ala Glu Lys Glu Asn Glu Ile Leu Arg Asp Ile Lys Gln Asn Ile Ala
            340                 345                 350
Lys His Ile Lys Trp Asn Glu Gly Tyr Val Asp Tyr Thr Arg Ala Pro
        355                 360                 365
Leu Ser Pro Pro Pro Glu Lys Thr Phe Gln Ala Ala Phe Arg Pro Ala
    370                 375                 380
Ile Thr Thr Gln Leu Pro Thr Pro Pro Ser Ser Asp Ser Ser Asp Asn
385                 390                 395                 400
Met Met Leu Glu Ser Ala Leu Asp Thr Ala Asn Ser Leu Ser Phe Arg
                405                 410                 415
Asp Lys Leu Val Pro Arg Thr Trp Glu Met Asn Glu Asp Thr Cys Arg
            420                 425                 430
Ile Pro Ser Phe Arg Arg Arg Ile Gly Arg Gly Gly Arg Leu Met Ile
        435                 440                 445
Asp Arg Arg Asn Met Ala Ser Arg Cys Arg Ile Glu Met Asp Pro Leu
    450                 455                 460
Lys Ala Asp Arg Phe Lys Tyr Asp Arg Glu Asp Ser Asp Asp Glu Ser
465                 470                 475                 480
Glu Phe Glu Cys Asp Pro Tyr Asp Val Gln Ile Met Gln His Arg Ala
                485                 490                 495
Ile Met Ala Ala Lys Ala Arg Asp Gln Ala Ala Ala Ala Ala Gln Ala
            500                 505                 510
His Ala Gln Ala Gln Ala Ala Gln Ala Gln Ala Gln Ala Gln Ala Gln
        515                 520                 525
Lys Arg Leu Gln Ala Glu Gln Thr Thr Thr Asn Asn Gly Pro Pro Asn
    530                 535                 540
Met Gly His Thr Met Gly Ser Asn Pro Gly Pro Gly Ala Val Ala Ser
545                 550                 555                 560
Thr Ser
```

<210> 37719
<211> 166
<212> PRT
<213> A.fumigatus

<400> 37719

```
Leu Ala Phe Leu Glu Asp Leu Glu Leu Leu Asp Asp Gly Tyr Val Ile
1               5                   10                  15
Pro Arg Pro Ser Pro Glu Asp Ser Leu Thr Asp Phe Leu Pro Asp Glu
            20                  25                  30
Leu Leu Val Leu Val Lys Thr Leu Thr Leu Ser Ser Glu Gln Leu Glu
        35                  40                  45
His Gln Lys Ser Lys Ser Lys Ala Pro Lys Pro Ser Phe Gly His Ala
    50                  55                  60
Glu Ala Ala Ile Leu Leu Lys Ala Val Gln Leu Val Gly Ser Gln Tyr
65                  70                  75                  80
Pro Thr Thr Val Ala Gln Asp Glu Glu Ile Leu Ser Gly Leu Val Gln
                85                  90                  95
Ser Glu Ala Ser Gln Pro Leu Asn Gln Thr Asp Arg Arg Gln Lys Met
            100                 105                 110
Ala Ile Gln Val Arg Leu Gly Glu Lys Tyr Ile Leu Gln Thr Leu Ala
        115                 120                 125
Asn Met Leu Glu Lys Phe Ile Thr Asn Ser Ala Gln Ser Asn Gly Gly
    130                 135                 140
```

```
Ser Gly Leu Lys Arg Gly Ala Asn Gly Asp Ser Gly Asp Ser Arg Arg
145                 150                 155                 160
Thr Lys Ala Pro Lys Asn
                165
```

<210> 37720
<211> 63
<212> PRT
<213> A.fumigatus

<400> 37720

```
Asp Gly Ser Arg Asn Thr Arg Gly Arg Gly Leu Pro Ser Cys Gly Arg
1               5                   10                  15
Gly Val Val Pro Pro Thr Ser Thr Ile Ala Gly Pro Ile Ala Asn Asn
            20                  25                  30
Gly Ser Gly Ile Ser Ala Cys Leu Ser Ser Pro Pro Glu Met Pro Met
        35                  40                  45
Gly Leu Leu Ser Val Tyr Pro Lys Thr Cys Ile Ser Lys Phe Ser
    50                  55                  60
```

<210> 37721
<211> 263
<212> PRT
<213> A.fumigatus

<400> 37721

```
Lys Cys Glu Ala Gln Arg Asn Lys Ile Val Leu Pro Gln Asn Arg Ser
1               5                   10                  15
Arg Leu Leu Leu Ala Leu Ile Pro Asp Phe Leu Thr Ile Tyr Pro Cys
            20                  25                  30
Ala Gln Ile Ile Lys Asp Trp Ala Ala Gly Phe Gln Leu Pro Ser Asp
        35                  40                  45
Val Asp Pro Glu Gln Pro Pro Phe Leu Leu Gly Ala Gln Asp Cys Phe
    50                  55                  60
Trp Glu Ala Ala Gly Ala Tyr Thr Gly Glu Val Ser Pro Ala Ser Leu
65                  70                  75                  80
Arg Ser Leu Gly Val Arg Leu Val Glu Leu Gly His Ala Glu Arg Arg
                85                  90                  95
Ala Leu Phe Gly Glu Thr Asp Asp Gln Val Ala Arg Lys Ala Ala Ala
            100                 105                 110
Ala Val Asp Gln Gly Leu Ile Pro Leu Val Cys Ile Gly Glu Val Thr
        115                 120                 125
Ala Pro Gly Ala Ile Ala Ser Glu Ala Val Gly Leu Ala Val Arg Glu
    130                 135                 140
Cys Ala Gly Gln Met Arg Ala Val Leu Asp Ala Ile Pro Ser Ala Ala
145                 150                 155                 160
Pro Val Ile Phe Ala Tyr Glu Pro Val Trp Ala Ile Gly Lys Ala Lys
                165                 170                 175
Pro Ala Gly Val Asp His Val Ala Ala Val Val Glu Gly Ile Arg Ala
            180                 185                 190
Val Ile Gly Lys Arg Glu Gly Glu Val Arg Val Leu Tyr Arg Gly Thr
        195                 200                 205
Ala Gly Pro Gly Leu Trp Gly Ala Gly Arg Leu Gly Lys Ala Val Asp
    210                 215                 220
Gly Met Phe Leu Gly Glu Phe Ala His Glu Ile Glu Gly Val Gln Lys
225                 230                 235                 240
```

Val Val Gln Gly Ser Gly Arg Lys Leu Val Arg Ala Ile Ala Asp Ser
245 250 255
Leu Ala Arg Ser Phe Phe Arg
260

<210> 37722
<211> 420
<212> PRT
<213> A.fumigatus

<400> 37722
Phe Asp Ala Ala Ile Met Ala Pro Glu Thr Pro Gln Pro Ile Asp Pro
1 5 10 15
Ala Asp Leu Pro Leu Leu Met Thr Leu Asp Gln Leu Lys Asn Pro Ala
20 25 30
Pro Lys Asn Ala Asn Val Ser Phe Leu Arg Arg Thr Gln Tyr Ile Ser
35 40 45
Ala Gly Leu Arg Ala Pro Asp Gly Pro Lys Val Ala Pro Ile Arg Ala
50 55 60
Lys Ala Arg Ser Ala Asp Lys Thr Lys Ser Gln Asp Asp Pro Met Tyr
65 70 75 80
Ile Lys Lys Tyr Ile Gln Lys Gly Phe Asp Ile Ala Tyr Pro Asp Ser
85 90 95
Arg His Val Gly Glu Asp Thr Pro Asn Arg Ile Lys Gly His Thr Pro
100 105 110
Thr Lys Ile Glu Val Asp Ala Trp Ala Asn Pro Val His Pro Asp Asn
115 120 125
Pro Lys Leu Lys Pro Val Gly Phe Tyr Pro Leu Leu Pro Asp Leu Gln
130 135 140
Gly Phe Pro Asp Pro Gly Gly Phe Val Gln Phe Lys Phe Asp Lys Ala
145 150 155 160
Pro Val Gln Gly Val Ser Gly Lys Arg Asp Glu Arg Met Asp Val Ala
165 170 175
Ile Leu Leu Pro Ser Ala Pro Glu Glu Arg Val Cys Gln Glu His Ala
180 185 190
Thr Lys Ala Ala Leu His Lys Ser Asn Pro Glu Leu Tyr Pro Asp Pro
195 200 205
Gly Pro Ile Pro Trp Asp Tyr Asp Leu Phe Leu Pro Glu Lys Lys Asp
210 215 220
Ala Val Lys Glu Val Ile Ala Ser Leu Arg Leu Ser Asn Pro Asp Arg
225 230 235 240
Asp Ser Glu Val Leu Tyr Thr His Glu Gly Thr Asp Gly Ile Arg Phe
245 250 255
His Arg Tyr Glu Arg Met Arg Thr Tyr Ala Thr Ser Ala Gln Thr Leu
260 265 270
Gly Asn Glu Ser Lys Gln Arg Asp Val Ala Leu Thr Leu Phe Asp Pro
275 280 285
Ala Glu Ala Lys Glu Gly Gln Gln Thr Lys Gln Arg Gly Ala Tyr Tyr
290 295 300
Tyr Pro Ile Leu Gly Lys Thr Arg Leu Lys Pro Glu Arg Ala Arg Thr
305 310 315 320
Ile Ala Gln Ala Gly Leu Ala Pro Thr Arg Pro Lys Thr Lys Glu Asp
325 330 335
Gln Val Asp Gln Ile Gln Val Val Val Arg Asp Pro Asp Glu Ala Glu
340 345 350
Val Tyr Lys Arg Ser Leu His Arg Ala Ala Ile Asp Pro Lys Phe Ala

```
        355                 360                 365
Lys Thr Leu Pro Pro Pro Pro Glu Pro Glu Ser Ala Pro Glu Gln Glu
    370                 375                 380
His Pro Glu Thr His Asp Ser Asp Arg Gly Glu Glu Val Thr Glu Asp
385                 390                 395                 400
Arg Asn His Gln Pro Thr Ala Ala Glu Val Ser Asp Asp Glu Asp Lys
                405                 410                 415
Met Ser Asp Glu
            420
```

<210> 37723
<211> 194
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (47)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37723

```
Gly Val Asp Arg Lys Thr Lys Pro Tyr Val Met Val Lys Val Ser Leu
1               5                   10                  15
Asp Asp Asp Ser Asp Glu Gln Val Ser Cys Ile Cys Asp Ala Val Trp
            20                  25                  30
Gln Phe Gly Val Asp Arg Ala Tyr Arg Gly Asn Thr Thr Asn Xaa Arg
        35                  40                  45
Pro Ala Pro Leu Pro His Gly Phe Thr Leu Pro Pro Lys Glu Gln Ser
    50                  55                  60
Thr Leu Lys Glu Thr Gly Gly Tyr Ser Gly Pro Gln Leu Phe Asp Arg
65                  70                  75                  80
Thr Ala Ala Leu Val Ala Arg Tyr Arg Ala Leu Leu Asp Ala Pro Pro
                85                  90                  95
Thr Pro Ala Ser Asp Ala Asn Glu Thr Asp Gln Ala Lys Glu Leu Ala
            100                 105                 110
Ala Ala Val Thr Arg Ala Glu Pro Asp Val Glu Asn Val Pro Ala Val
        115                 120                 125
Glu Pro Pro Thr Pro Ala Asn Arg Pro Ala Arg Lys Val Ile Phe Ala
    130                 135                 140
Ser Gly Gly Ile Thr Asn Gly Lys Gln Ala Gln Ala Val Leu Asp Ala
145                 150                 155                 160
Gly Ala Ser Val Ala Met Met Tyr Thr Ala Val Thr Tyr Gly Gly Ile
                165                 170                 175
Gly Thr Val Thr Arg Val Lys Gln Glu Leu Arg Glu Glu Lys Lys Asn
            180                 185                 190
Arg Gln
```

<210> 37724
<211> 208
<212> PRT
<213> A.fumigatus

<400> 37724

```
Ile Val Ser Ile Val His Asp His Asn Asp His Pro Ser Ile Leu His
1               5                   10                  15
```

```
Leu Lys Lys Leu Leu Ala Ser Glu Ser Ala Ile Ala Leu Thr Ser Phe
            20                  25                  30
Leu Pro Leu Pro Trp Thr Thr Phe Trp Thr Pro Ser Ile Ser Cys Ala
        35                  40                  45
Asn Ser Pro Arg Asn Ile Pro Ser Thr Ala Leu Pro Ser Leu Pro Ala
    50                  55                  60
Pro His Ser Pro Gly Pro Ala Val Pro Arg Tyr Lys Thr Leu Thr Ser
65                  70                  75                  80
Pro Ser Arg Phe Pro Ile Thr Ala Arg Ile Pro Ser Thr Thr Ala Ala
                85                  90                  95
Thr Trp Ser Thr Pro Ala Gly Phe Ala Phe Pro Ile Ala Gln Thr Gly
            100                 105                 110
Ser Tyr Ala Lys Ile Thr Gly Ala Ala Glu Gly Ile Ala Ser Ser Thr
        115                 120                 125
Ala Arg Ile Trp Pro Ala His Ser Arg Thr Ala Ser Pro Thr Ala Ser
    130                 135                 140
Asp Ala Ile Ala Pro Gly Ala Val Thr Ser Pro Met Gln Thr Arg Gly
145                 150                 155                 160
Ile Arg Pro Trp Ser Thr Ala Ala Ala Ala Leu Arg Ala Thr Trp Ser
                165                 170                 175
Ser Val Ser Pro Lys Arg Ala Arg Arg Ser Ala Trp Pro Asn Ser Thr
            180                 185                 190
Arg Arg Thr Pro Ser Glu Arg Ser Glu Ala Gly Glu Thr Ser Pro Val
        195                 200                 205
```

<210> 37725
<211> 157
<212> PRT
<213> A.fumigatus

<400> 37725

```
Gln Gly Arg Leu Val Met Val Ala Asn Ser Thr Ser Leu Ala Trp Lys
1               5                   10                  15
Ser Ala Gly Leu Arg Ala Arg Ala Val Pro Ser Leu Arg Cys Ser His
            20                  25                  30
Arg Ser Ser Val Leu His Arg Gln Ala Ala Phe Gln Gln His Gly Ala
        35                  40                  45
Val Arg His Ala Ser Ser Thr Thr Ser Glu Ala Ala Glu Ala Val Lys
    50                  55                  60
Glu Ala Pro Lys Lys Ala Gly Arg Gly Leu Lys Arg Thr Val Tyr Gly
65                  70                  75                  80
Thr Ser Leu Val Leu Ala Ala Leu Val Gly Tyr Val Tyr Ala Thr Asp
                85                  90                  95
Thr Arg Ala Ser Ile His Arg Tyr Ala Val Val Pro Leu Val Arg Thr
            100                 105                 110
Leu Tyr Pro Asp Ala Glu Glu Ala His His Ile Gly Val Glu Ala Leu
        115                 120                 125
Lys Thr Leu Tyr Lys Tyr Gly Leu His Pro Arg Glu Arg Gly Asn Gln
    130                 135                 140
Asp Gly Asp Gly Val Leu Ala Thr Glu Val Ile Gln Pro
145                 150                 155
```

<210> 37726
<211> 204
<212> PRT
<213> A.fumigatus

<400> 37726
Leu Asn Leu Leu Met Gln Val Phe Gly Tyr Thr Leu Asn Asn Pro Ile
1 5 10 15
Gly Ile Ser Gly Gly Leu Asp Lys His Ala Glu Ile Pro Asp Pro Leu
20 25 30
Phe Ala Ile Gly Pro Ala Ile Val Glu Val Gly Gly Thr Thr Pro Leu
35 40 45
Pro Gln Glu Gly Asn Pro Arg Pro Arg Val Phe Arg Leu Pro Ser Gln
50 55 60
Lys Ala Met Ile Asn Arg Tyr Gly Leu Asn Ser Leu Gly Ala Asp His
65 70 75 80
Met Ala Ala Ile Leu Glu Arg Arg Val Arg Asp Phe Ala Tyr Ala Asn
85 90 95
Gly Phe Gly Leu His Asp Glu Ala Glu Gln Arg Val Leu Asp Gly Glu
100 105 110
Ala Gly Val Pro Pro Gly Ser Leu Gln Pro Gly Arg Leu Leu Ala Val
115 120 125
Gln Ile Ala Lys Asn Lys Ala Thr Pro Asp Ser Asp Ile Glu Ala Ile
130 135 140
Lys Arg Asp Tyr Val Tyr Cys Val Asp Arg Leu Ala Lys Tyr Ala Asp
145 150 155 160
Ile Leu Val Val Asn Val Ser Ser Pro Asn Thr Pro Cys Leu Arg Asp
165 170 175
Leu Gln Ala Thr Ala Pro Leu Thr Ala Ile Leu Lys Ala Val Val Ser
180 185 190
Ala Ala Arg Gly Ser Thr Ala Arg Pro Ser Arg Met
195 200

<210> 37727
<211> 122
<212> PRT
<213> A.fumigatus

<400> 37727
Gln Val Phe Phe His Phe Leu Gly Pro Leu Phe Gly His Leu Gln Phe
1 5 10 15
His Ala Gln Thr Pro Pro Glu Thr Ser His Gln Arg Pro Cys Pro Ala
20 25 30
Phe Gln Pro Pro Thr Ala Pro Ala Pro Arg Phe Pro Gly Thr Lys Pro
35 40 45
Ser Leu Pro Leu Leu Ala Ser Gln Ser Pro Pro Glu Ser Leu Pro Pro
50 55 60
Gln Pro Gln His Gly Pro Pro Pro Gln Ala Ser Leu Ser Gln Ser Pro
65 70 75 80
Lys Gln Ala His Met Gln Arg Ser Pro Ala Gln Arg Arg Gly Ser His
85 90 95
Pro Ala Pro Arg Ala Ser Gly Pro His Thr His Ala Pro Pro Ala Pro
100 105 110
Pro Leu Leu Thr Arg Ser Pro Pro Ala Gln
115 120

<210> 37728
<211> 316
<212> PRT
<213> A.fumigatus

<400> 37728
Cys Ser Trp Glu Val Tyr Asp Asn Ala Pro Asp Leu Ser Ser Pro Pro
1 5 10 15
Thr Ala Gly Val Gln Asn Gly Thr Leu Met Asp Asp Gly Asp His Gly
20 25 30
Lys Ala Val Lys Ile Cys Tyr Leu Thr Glu Gln Thr Ser His His Pro
35 40 45
Pro Val Ser Ala Phe Phe Ile Asp Cys Pro Glu Arg Gly Val Ser Ala
50 55 60
Arg Gly Phe Asp Gln Leu Ser Ala Lys Phe Thr Gly Thr Ser Ile Arg
65 70 75 80
Val Ala Pro Gly Gln His Asn Leu Gly Ile Phe Val Asn Ile Glu Lys
85 90 95
Arg Asp Asn Glu Glu Tyr Gln Leu Thr His Pro Ser Ala His Leu Gly
100 105 110
Gly Leu Leu Arg Gly Ala Leu Ala Val Ser Val Ser Asp Thr Cys Phe
115 120 125
Ile Thr Cys Ser Lys Thr Arg Ile Lys Val Ile Leu Gln Tyr Leu Glu
130 135 140
Glu Gly Trp Ile Gly Arg Ala Gln Asn Lys Val Glu Gly Leu Ile Phe
145 150 155 160
Arg Tyr Asp Pro Asn Gln Asp Thr Ile Thr Arg Ile Lys Asp Val Pro
165 170 175
Asp Gly Asp Val Leu Ala Arg Ile Ser Gly Ser Trp His Gly Glu Ile
180 185 190
Tyr Tyr Thr Val Ala Gly Thr Ala Glu Pro Arg Leu Leu Ile Asp Val
195 200 205
Thr Pro Leu Phe Pro Val Pro Lys Thr Leu Pro Pro Glu Glu Asp Gln
210 215 220
Leu Ser Asn Glu Ser Leu Lys Phe Trp Ala Gly Val Thr Lys Ala Ile
225 230 235 240
Lys Glu Lys Arg Tyr Ser Glu Ala Thr Arg Leu Lys Gln Glu Ile Glu
245 250 255
Glu Arg Gln Arg Glu Lys Ala Ala Glu Arg Gln Gln Lys Asn Glu Ser
260 265 270
Trp Gln Pro Arg Phe Phe Thr Gly Ser Val Thr Pro Met Gly Arg Pro
275 280 285
Glu Leu Thr Glu Glu Gly Tyr Thr Ala Leu Gln Gly Leu Arg Asn Gly
290 295 300
Asp Tyr Lys Leu Ala Glu Ser Glu Ile Lys Gly Ala
305 310 315

<210> 37729
<211> 291
<212> PRT
<213> A.fumigatus

<400> 37729
Gly Cys Ser Arg Pro Arg Pro Lys Asp Leu Phe Ala Arg Thr Phe Ser
1 5 10 15
Val Leu Phe Ile Val Gly His Ile Ala Ile Lys Gln Ile Phe His Leu
20 25 30
Glu Pro Cys Glu Leu Asp Phe Arg Val Arg Lys Ala Gly Gln Glu Ser
35 40 45
His Lys Val Ala Ile Thr Ala Ala His Lys Asp Asn Gln Thr Gly Glu

```
    50                  55                  60
Asp Asp Glu Leu Asp Leu Ile Gly Gly Thr Thr Glu Asp Asp Phe Thr
65                  70                  75                  80
Glu Ala Met Ser His Ile Arg Glu Arg Glu Leu Leu Tyr Gly Glu Asn
                85                  90                  95
Ser Leu Leu Ser Asn Phe Gly Pro Leu Val Ala Glu Ile Cys Ser Asn
            100                 105                 110
Ser Asn Ala Tyr Pro Asp Arg Asn Leu Gln Ala Ala Ala Thr Leu Cys
        115                 120                 125
Met Ala Lys Leu Met Cys Val Ser Ala Glu Tyr Cys Glu Lys Asn Leu
    130                 135                 140
Pro Leu Leu Ile Thr Ile Met Glu Arg Ser Glu Asp Pro Thr Val Arg
145                 150                 155                 160
Ser Asn Ala Val Ile Ala Leu Gly Asp Met Ala Val Cys Phe Asn His
                165                 170                 175
Leu Ile Asp Glu Asn Thr Asp Phe Leu Tyr Arg Arg Leu Asn Asp Asp
            180                 185                 190
Asp Val Ser Val Lys Arg Thr Cys Leu Met Thr Leu Thr Phe Leu Ile
        195                 200                 205
Leu Ala Gly Gln Val Lys Val Lys Gly Gln Leu Gly Glu Met Ala Lys
    210                 215                 220
Cys Leu Glu Asp Asp Asp Lys Arg Ile Ala Asp Leu Ala Arg Met Phe
225                 230                 235                 240
Phe Thr Glu Leu Ala Thr Lys Asp Asn Ala Val Tyr Asn His Phe Val
                245                 250                 255
Asp Met Phe Ser Leu Leu Ser Ala Glu Arg Asn Leu Glu Glu Thr Ala
            260                 265                 270
Leu Arg Arg Ile Val Lys Phe Leu Ile Gly Phe Val Glu Lys Val Ser
        275                 280                 285
Tyr Lys Thr
    290
```

<210> 37730
<211> 149
<212> PRT
<213> A.fumigatus

```
<400> 37730
Asn Leu Pro Thr Tyr Thr Met Glu Asn Val Gln Pro Leu Trp Asn Ala
1               5                   10                  15
Asp Pro Met Ile Arg His Leu Leu Ala Ala Phe Arg Asp Thr Phe Ser
            20                  25                  30
Asn Arg Gly Ser Ile His His Leu His Arg His His Pro Val Ile Asn
        35                  40                  45
Leu His Val Pro Phe Pro Gln Ala Leu Ser Gly Asn Leu His His Ala
    50                  55                  60
Pro Leu Ser Gln Ile Thr Asn Gly His Ala Val Asn Asn Gly Leu Gln
65                  70                  75                  80
Val Gln Pro Gln Arg Ser Pro Arg Pro Pro Pro Pro Thr Pro Ala Leu
                85                  90                  95
Pro Pro His Pro Pro Arg Pro Pro Pro Gln Ala Arg Ser Arg Asp Ala
            100                 105                 110
His Pro Gly Arg Leu Ile Arg Glu Lys Arg Val Pro Arg Thr Gln Lys
        115                 120                 125
Arg Arg Glu Ser Ser Ala Tyr Cys Thr Leu Pro Arg Phe Ser Ser Gly
    130                 135                 140
```

Gln Ile Glu Gln Cys
145

<210> 37731
<211> 202
<212> PRT
<213> A.fumigatus

<400> 37731
Cys Leu His Ile Lys Arg Cys Val Tyr Gln Cys Leu Thr Ala Thr Leu
1 5 10 15
Thr Pro Tyr His Leu Gln Val Met Thr Asn His Phe Asp Gln Glu Lys
20 25 30
Tyr Thr Ser Ala Gly Pro Ile Asn Arg Thr Tyr Ile Tyr Ile Gln Arg
35 40 45
Asn His Ser Pro Ala Thr Glu Ala Leu Tyr Ser Leu Pro Ser Gln Thr
50 55 60
Asn Lys Met Pro Pro Lys Thr Ser Ile Met Glu Asn Pro Ser Ser Lys
65 70 75 80
Ile Pro Pro Pro Ala Ser Ala Leu Gln Lys Ala Pro Thr Leu Lys Pro
85 90 95
Arg Arg Gly Val Leu Arg Asp Gly Thr Pro Val Thr Met Tyr Pro Ile
100 105 110
Ala His Gly Ala Ser Ser Ile Pro Ser Gly Leu Val Ala Thr Leu Ala
115 120 125
Asp Glu Phe Arg Ala Glu Ile Glu Ala Gly Cys Thr Tyr Pro Met Glu
130 135 140
Glu Pro Met Gly Glu Ala Lys Phe Ala Glu Tyr Trp Phe Gly Thr Phe
145 150 155 160
Ala Val Val Ala Leu Thr Gly Asp Glu Glu Glu Ile Arg Glu Gly Arg
165 170 175
Asp Trp Lys Lys Glu Cys Leu Gly Thr Phe Tyr Ile Lys Pro Asn Tyr
180 185 190
Pro Gly Asn Leu Phe Cys Ile Gln Phe Val
195 200

<210> 37732
<211> 137
<212> PRT
<213> A.fumigatus

<400> 37732
Phe Ala Ile Ser Ser Pro Pro Ser Gly Ile His Ser Pro Thr Ala Ala
1 5 10 15
Val Ser Ile Ile Phe Ile Val Ile Ile Gln Ser Ser Ile Cys Thr Phe
20 25 30
Leu Ser Leu Lys His Phe Leu Ala Thr Tyr Thr Met Arg Leu Phe His
35 40 45
Arg Leu Leu Met Ala Thr Pro Ser Thr Met Gly Ser Lys Ser Ser Leu
50 55 60
Ser Glu Ala Leu Ala Leu Leu Pro Pro Leu Gln Leu Tyr Arg Arg Ile
65 70 75 80
Leu Arg Val His Arg Arg Lys Leu Asp Pro Glu Met Arg Ile Leu Gly
85 90 95
Asp Ser Tyr Val Lys Ser Glu Phe Arg Ala His Arg Asn Val Glu Asn
100 105 110

```
Pro Leu His Ile Val Arg Phe Pro Val Phe Pro Gln Val Lys Leu Ser
        115                 120                 125
Ser Ala Lys Ala Cys Arg Ser Ala Ser
    130                 135
```

<210> 37733
<211> 62
<212> PRT
<213> A.fumigatus

<400> 37733

```
Gln Pro Thr Glu Tyr Glu Asp Leu Asp Ile Leu Phe Val Tyr Tyr Tyr
1               5                   10                  15
Ala Ser Ala Gln Lys Leu Ala Thr Gly Gly Cys Ile Ser Leu Ile Leu
            20                  25                  30
Thr Ala Phe Met Ser Ile Phe Ser Phe Ala Leu Val Gln Arg Tyr Lys
        35                  40                  45
Ile Pro Cys Met Gln Leu Ala Leu Gly Leu Glu Ala Arg Ala
    50                  55                  60
```

<210> 37734
<211> 84
<212> PRT
<213> A.fumigatus

<400> 37734

```
Glu Ile Ser Leu His Ile Leu Thr Ile Thr Asn Phe Ser His Pro Ala
1               5                   10                  15
Cys Val Pro Leu Phe Pro Thr Asp Ser Ala Phe His Pro Pro Pro His
            20                  25                  30
Pro Arg Ile Leu Ser Leu Thr Ser Ser Gly Arg Phe Cys Ala Gln Ser
        35                  40                  45
Ser Thr Tyr Ala Thr Pro Arg Ser Gly Cys Asn Thr Pro Gly Ser Ala
    50                  55                  60
Ser Ser Asn Arg Phe Val Val Ser Ile Pro Ser Asn Pro Pro Ala Tyr
65                  70                  75                  80
Val Asn Asp Arg
```

<210> 37735
<211> 274
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (142),(156),(168)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37735

```
Asn Leu Gln Gly Cys Lys Leu His Asn Met Leu Pro Thr Pro Ser Thr
1               5                   10                  15
Asp His Val Ser Phe Asp Thr Ile Tyr Glu Pro Ser Glu Asp Ser Tyr
            20                  25                  30
Leu Phe Leu Asp Thr Leu Ser Ser Ala Ser Glu Ser Gln Trp Leu Ser
        35                  40                  45
```

```
Glu Arg Phe Asn Ser Thr Ser Thr Thr Thr Ser Thr Phe Pro Leu Val
    50                  55                  60
Val Glu Val Gly Thr Gly Ser Gly Val Val Leu Ala Phe Val Ala Ala
65                  70                  75                  80
Asn Ser His Glu Ile Phe Gly Arg Arg Asp Ile Leu Thr Leu Gly Thr
                85                  90                  95
Asp Val Asn Arg Asn Ala Cys Val Ala Thr Arg Thr Thr Val Lys Thr
            100                 105                 110
Ala Ile Gln Glu Arg Gln Ala Ala Ala Ala Leu Lys Ser Thr His Val
        115                 120                 125
Ala Ser Val Leu Gly Asp Leu Cys Ser Pro Leu Arg Pro Xaa Ser Val
    130                 135                 140
Asp Val Leu Leu Phe Asn Pro Pro Tyr Val Pro Xaa Glu Glu Leu Ala
145                 150                 155                 160
Arg Leu Pro Phe Val Thr Glu Xaa Glu Ala Asp Pro Ala Ala Glu Pro
                165                 170                 175
Leu Ser Arg Ser Ala Lys Phe Glu Arg Asp Ser Tyr Tyr Leu Ser Leu
            180                 185                 190
Thr Tyr Ala Gly Gly Leu Asp Gly Met Glu Thr Thr Asn Arg Leu Leu
        195                 200                 205
Glu Ala Leu Pro Gly Val Leu His Pro Glu Arg Gly Val Ala Tyr Val
    210                 215                 220
Leu Leu Cys Ala Gln Asn Arg Pro Glu Glu Val Lys Glu Arg Ile Arg
225                 230                 235                 240
Gly Trp Gly Gly Gly Trp Lys Ala Glu Ser Val Gly Asn Ser Gly Thr
                245                 250                 255
Gln Ala Gly Trp Glu Lys Leu Val Ile Val Arg Ile Trp Arg Asp Ile
            260                 265                 270
Ser Gln
```

<210> 37736
<211> 142
<212> PRT
<213> A.fumigatus

<400> 37736

```
Gly Gly Gly Gly Ala Glu Ser Lys Lys Arg Ala Phe Arg Gly Gly Gly
1               5                   10                  15
Gly Gly Gly Ala Gly Gly Gly Gly Gly Gly Gly Gly Gly Glu Gly Gly
            20                  25                  30
Gly Gly Gly Gly Gly Gly Arg Arg Gly Gly Gly Gly Gly Gly Gly Gly
        35                  40                  45
Gly Gly Gly Trp Gly Arg Gly Gly Ser Glu Arg Gly Ala Gly Glu Gly
    50                  55                  60
Gly Gly Gly Gly Gly Arg Glu Gly Gly Glu Gly Gly Gly Gln Asn Glu
65                  70                  75                  80
Val His Ile Asp Arg Arg Trp Gly Gly Cys Gly Gly Gly Gly Gly Gly
                85                  90                  95
Gly Ala Gly Gly Gly Val Gly Gly Thr Cys Gly Ser Ala Gly Gly Gly
            100                 105                 110
Arg Trp Gly Val Glu Gly Gly Glu Gly Gly Gly Gly Gly Gly Glu Gly
        115                 120                 125
Gly Gly Cys Gly Gly Gly Val Val Val Gly Gly Gly Glu Gly
    130                 135                 140
```

<210> 37737
<211> 616
<212> PRT
<213> A.fumigatus

<400> 37737

```
Glu Thr His Asp Ser Leu Arg Leu Lys Thr Met Ser Ser Val Phe Gly
1               5                  10                  15
Ser Gln Pro Pro Arg Phe Ser Pro Pro Gln Ser Ala Gln Pro Tyr Arg
            20                  25                  30
Ser Ile Phe Gly Gly Pro Ser Ser Gln Asp Val Thr Asp Leu Glu Pro
        35                  40                  45
Tyr Pro Glu Thr Gln Gln Gly Gly Asn Arg Pro Asp Gln His Asp Ser
    50                  55                  60
Asp Val Asp Met Glu Asp Val Pro Leu Thr Glu Val Asp His Ser Asp
65                  70                  75                  80
Asp Glu Thr Tyr Val Glu Ser Glu Asp Asp Gly Ser Val Ser Asp Asp
                85                  90                  95
Glu Ala Ser Asn Asp Gly Asp Ser Tyr Lys Leu Ala Lys Lys Gln Ala
            100                 105                 110
Ala Val Leu Pro Ser Ser Ser Lys Gln His Pro Asp Ser Pro Pro Ser
        115                 120                 125
Ser Pro Ser Tyr Arg Pro Asn Arg Phe Arg Gly Pro Glu Ser Thr Trp
    130                 135                 140
Arg Lys Leu Thr Phe Glu Asp Arg Gln Asn Ala Gln Ala Leu Glu Glu
145                 150                 155                 160
Leu Arg Ala Arg Asp Leu Ala Ala His Leu Tyr Asn Ala Phe Ala Leu
                165                 170                 175
Arg Val Arg Ala Arg Glu Ile Ala Arg Gln Ala Leu Glu Ser Asp Lys
            180                 185                 190
Gln Leu Asp Glu Thr Glu Ala Phe Val Pro Pro Lys Arg Trp Thr Ala
        195                 200                 205
Trp Pro Val Pro Ala Thr Glu Val Pro Arg Pro Gly Glu His Leu Arg
    210                 215                 220
Arg Gln Ile Asp Asp Glu Trp Thr Leu Arg Met Pro Pro Asp Pro Arg
225                 230                 235                 240
Pro Ser Ala Glu Leu Glu Glu Ser Ile Ile Ala Ile Met Leu Lys Thr
                245                 250                 255
Ala Lys Asp Arg Phe Gln Ala Arg Asp Trp Thr Thr Lys Gly Val Gly
            260                 265                 270
Pro Asn Gln Lys Gln Arg Ala Arg Ser Met Ser Gln Thr Asn Asp Glu
        275                 280                 285
Thr Thr Gly Ile Glu Ser Glu Trp Glu Cys Asp Ile Asp Thr Thr Asp
    290                 295                 300
Ala Met Glu Leu Arg Pro Val Val Gln Ala Asp Asp Asp Lys Ser Arg
305                 310                 315                 320
Arg Gln Leu Arg Pro Leu Thr Arg Asn Ile Leu Thr Arg Phe Asp Gln
                325                 330                 335
Leu Leu Met Gly Leu His His Ala Arg Lys Gly Gly Met Thr Gly Asp
            340                 345                 350
Asp Ser Ser Ala Ser Glu Trp Gln Ser Asp Thr Glu Ser Ala Ala Ser
        355                 360                 365
Asn Ala Ser His Ser Arg Lys Met Arg Lys Gly Glu Lys Gly Glu Arg
    370                 375                 380
Ser Gln Ser Arg Gly Arg Lys Arg Ser Arg Arg Ser Ser Val Arg Ala
385                 390                 395                 400
```

```
Thr Ser Thr Thr Gly Arg Ser Arg Ser Val Leu Ala Ser Ser Ala Arg
                405                 410                 415
Thr Pro Ser His Ser Arg Gly Arg Ser Phe Asp Arg Asp Arg Arg Arg
            420                 425                 430
Ser Ala Ser Arg Ile Arg Arg Gly Leu Arg Asp Trp Ser Glu Val Leu
        435                 440                 445
Gly Val Ala Ser Ile Ile Gly Leu Pro His Ala Ala Val Met Arg Thr
    450                 455                 460
Ala Arg Arg Cys Ala Ala Leu Phe Gly Glu Asp Met Glu Phe Arg Thr
465                 470                 475                 480
Phe Ser Glu Gly Gln Leu Gln His Ser Lys Glu Gly Asp Val Asn Lys
                485                 490                 495
Trp Glu Tyr Val Glu Asn Glu Thr Asp Glu Ser Glu Pro Glu Gln Ile
            500                 505                 510
Val Pro Ser Pro Pro Ser Arg Thr Gln Ser Arg Lys Ser Arg Ser Arg
        515                 520                 525
Ala Ala Ser Thr Ile Gly Ser Thr Ser Arg Pro Ser Ser Pro Thr Ser
    530                 535                 540
Glu Ala Ala Gly Ser Lys Gln Arg Leu Lys Gly Lys Gly Gln His Arg
545                 550                 555                 560
Lys Gln Asp Ile Val Cys Pro Val Lys Ser Cys Pro Arg His Ile Asp
                565                 570                 575
Gly Phe Thr Arg Thr Trp Asn Leu Asn Leu His Met Lys Arg Met His
            580                 585                 590
Ala Gly Tyr Arg Ser Arg Ser Ala Ser Leu Lys Ser Ala Gly Ala Arg
        595                 600                 605
Ser Arg Ala Pro Ser Val Ser Gly
    610                 615
```

<210> 37738
<211> 202
<212> PRT
<213> A.fumigatus

<400> 37738

```
Asn Phe Ser Gly Pro Gly Leu Glu Thr Trp Leu Phe Leu Arg Gln Asn
1               5                   10                  15
Leu Asp Pro Tyr Asp Pro Arg Pro Pro Ala Pro Pro Pro Leu Pro Gln
            20                  25                  30
Pro Pro His Pro Pro Pro Asp Leu Pro Arg Pro Ala His Asn Thr Leu
        35                  40                  45
Ser Pro His Thr Ala Pro Arg Thr Pro Thr Leu Tyr Pro Ser Pro Pro
    50                  55                  60
Pro Thr Thr Thr Pro Pro Pro His Pro Pro Pro Ser Pro Pro Pro Pro
65                  70                  75                  80
Pro Pro Ser Pro Pro Ser Thr Pro His Arg Pro Pro Pro Ala Asp Pro
                85                  90                  95
His Val Pro Pro Thr Pro Pro Pro Ala Pro Pro Pro Pro Pro Pro Pro
            100                 105                 110
His Pro Pro His Leu Leu Ser Ile Trp Thr Ser Phe Cys Pro Pro Pro
        115                 120                 125
Ser Pro Pro Ser Leu Pro Pro Pro Pro Pro Pro Ser Pro Ala Pro Leu
    130                 135                 140
Ser Leu Pro Pro Arg Pro His Pro Pro Pro Pro Pro Pro Pro Pro Pro
145                 150                 155                 160
Pro Pro Arg Arg Pro Pro Pro Pro Pro Pro Pro Pro Ser Pro Pro Pro
```

```
                165                 170                 175
Pro Pro Pro Pro Pro Pro Ala Pro Pro Pro Pro Pro Arg Lys Ala
            180                 185                 190
Leu Phe Leu Asp Ser Ala Pro Pro Pro
        195                 200
```

<210> 37739
<211> 207
<212> PRT
<213> A.fumigatus

<400> 37739

```
Cys Lys Phe Leu Ser Arg Ile Leu Ala Asp Gln Ala Trp Lys His Gly
1               5                   10                  15
Phe Ser Cys Gly Lys Ile Ser Thr Pro Thr Thr Pro Asp Arg Leu His
            20                  25                  30
His Pro His Ser Pro Asn His Pro Thr Pro Pro Pro Thr Ser Arg Asp
        35                  40                  45
Pro Pro Thr Thr Pro Ser Pro Pro Thr Pro Leu Pro Ala His Pro Leu
    50                  55                  60
Ser Thr Pro Pro Pro Pro Pro Arg Pro Pro Pro Pro His Thr Pro His
65                  70                  75                  80
Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Thr Ala
                85                  90                  95
Pro Pro Gln Gln Thr Arg Thr Ser Pro Gln Leu Pro Pro Pro Pro Pro
            100                 105                 110
Pro Pro Pro Pro Pro Arg Thr Pro Pro Thr Ser Tyr Leu Tyr Gly Pro
        115                 120                 125
His Phe Ala Pro Pro Leu Leu Pro Pro Pro Phe Pro Pro Pro Pro Pro
    130                 135                 140
Pro Pro Pro Pro Pro Ser His Cys Pro Pro Ala Pro Thr Pro Pro Pro
145                 150                 155                 160
Pro Pro Pro His Pro Pro Pro Pro Ala Ala Pro Pro Leu Pro Pro Pro
                165                 170                 175
Pro Leu Pro Pro Leu Pro Pro Pro Leu Pro Pro Pro Pro Pro Pro Pro
            180                 185                 190
Pro His Pro Gly Lys Pro Ser Ser Trp Ile Pro Pro Pro Pro Pro
        195                 200                 205
```

<210> 37740
<211> 199
<212> PRT
<213> A.fumigatus

<400> 37740

```
Arg Thr Arg Leu Gly Asn Met Ala Phe Pro Ala Ala Lys Ser Arg Pro
1               5                   10                  15
Leu Arg Pro Pro Thr Ala Cys Thr Thr Pro Thr Pro Pro Thr Thr Pro
            20                  25                  30
Pro Pro Pro Arg Pro Pro Ala Thr Arg Pro Gln His Pro Leu Pro Pro
        35                  40                  45
His Arg Ser Pro His Thr His Ser Leu Pro Leu Pro Pro Pro His Asp
    50                  55                  60
His Pro Pro Pro Thr Pro Pro Thr Leu Pro Pro Pro Pro Pro Pro Leu
65                  70                  75                  80
Pro Pro Leu His Pro Pro Pro Pro Pro Pro Ser Arg Pro Ala Arg Pro
```

```
                85                  90                  95
Pro Asn Ser Pro Pro Arg Pro Pro Pro Pro Pro Pro Ala Pro Pro
            100                 105                 110
Pro Pro Pro Ile Tyr Met Asp Leu Ile Leu Pro Pro Pro Phe Ser Pro
        115                 120                 125
Leu Pro Ser Pro Pro Pro Pro Pro Leu Pro Arg Pro Pro Leu Thr Ala
    130                 135                 140
Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Thr Pro Pro Pro Pro
145                 150                 155                 160
Pro Pro Pro Pro Ser Pro Pro Pro Pro Phe Pro Pro Ser Pro Pro Pro
                165                 170                 175
Ser Pro Pro Arg Pro Pro Pro Pro Pro Thr Pro Glu Ser Pro Leu Leu
            180                 185                 190
Gly Phe Arg Pro Pro Pro Pro
        195
```

<210> 37741
<211> 73
<212> PRT
<213> A.fumigatus

```
<400> 37741
Ser Ala Pro Ile Gly Glu Asp Arg Lys Phe Pro Asn Gly Ile Ala His
1               5                   10                  15
Leu Ala Asp Lys Val His Lys Leu Gly Leu Lys Ile Gly Ile Tyr Ser
            20                  25                  30
Ser Ala Gly Arg Trp Thr Cys Ala Arg Tyr Glu Gly Ser Leu Gly Tyr
        35                  40                  45
Glu Glu Lys Asp Ala Ala Leu Trp Ala Ser Trp Gly Val Cys Ser Leu
    50                  55                  60
Ser Gly Ser Pro Gly Val Leu Gln Gly
65                  70
```

<210> 37742
<211> 246
<212> PRT
<213> A.fumigatus

```
<400> 37742
Val Pro Leu Pro Pro Ser Lys Pro Gln Cys Asn Asn Ile Gln Pro Arg
1               5                   10                  15
Pro Lys Asp Gly Lys Phe Thr Leu Thr Arg Arg Thr Glu Val Gly Asn
            20                  25                  30
Gly Gly Leu Thr Asp Asp Glu Ser Ile Ala His Met Ser Leu Trp Ala
        35                  40                  45
Ala Leu Lys Ser Pro Leu Leu Met Thr Asn Val Met Thr Lys Ile Asp
    50                  55                  60
Pro Pro Thr Leu Ser Ile Leu Gln Asn Pro Ala Val Leu Ala Val Ser
65                  70                  75                  80
Gln Asp Pro Leu Ala Ser Thr Pro Val Arg Gln Trp Arg Tyr Phe Val
                85                  90                  95
Asp Asp Val Asp Glu Asn Gly Lys Gly Glu Ile Gln Met Tyr Ser Gly
            100                 105                 110
Pro Leu Ser Gly Gly Asp Gln Leu Val Leu Leu Leu Asn Ala Gly Ser
        115                 120                 125
Lys Ala Arg Glu Met Asn Ala Thr Leu Val Asp Ile Phe Trp Glu Ser
```

```
    130                 135                 140
Gly Ala Lys Gly Thr Ala Lys Gln Val Lys Gln His Trp Asp Val Tyr
145                 150                 155                 160
Asp Leu Trp Ala Asn Arg Met Ser Asn Glu Asp Ala Ala Ala Ile Ile
                165                 170                 175
Asn Gly Thr Phe Thr Gly Pro Ser Pro Tyr Asn Leu Thr Ala Met Gly
            180                 185                 190
Gly Ala His Glu Val Tyr Ser Arg Pro Leu Pro Ser Asn Ser Lys Val
        195                 200                 205
Leu Met Gly Ser Lys Val Gly Ser Val Gln Pro Ser Gly Thr Val Thr
    210                 215                 220
Ala Tyr Val Arg Pro His Gly Val Ala Met Leu Arg Leu Arg Ala Thr
225                 230                 235                 240
Asp Lys Lys Asp Glu Leu
                245
```

<210> 37743
<211> 148
<212> PRT
<213> A.fumigatus

```
<400> 37743
Ile Asp Tyr Leu Lys Tyr Asp Asn Cys Tyr Asn Glu Gly Glu Glu Gly
1               5                   10                  15
Thr Pro Lys Leu Ser Phe Asp Arg Tyr Asn Ala Met Phe Lys Ala Leu
            20                  25                  30
Asn Ala Thr Gly Arg Pro Met Leu Tyr Ser Leu Cys Asn Trp Gly Val
        35                  40                  45
Asp Gly Pro Trp Asn Phe Ala Pro Thr Ile Ala Asn Ser Trp Arg Thr
    50                  55                  60
Thr Gly Asp Leu Ser Asn Val Trp Asp Arg Asp Asp Val Asn Cys Pro
65                  70                  75                  80
Cys Ser Glu Leu Asp Gly Leu Asp Cys Lys Thr Pro Gly Tyr Lys Cys
                85                  90                  95
Ser Ile Met Asn Val Leu Asn Lys Ala Val Tyr Tyr Pro Ser Lys Ala
            100                 105                 110
Ile Pro Gly Ala Trp Asn Asp Leu Asp Met Leu Arg Lys Phe His Phe
        115                 120                 125
Pro Pro Ala Asn Pro Asn Ala Thr Thr Phe Asn Pro Ala Arg Arg Met
    130                 135                 140
Gly Asn Ser Arg
145
```

<210> 37744
<211> 207
<212> PRT
<213> A.fumigatus

```
<400> 37744
Ala Ala Pro Pro Leu Leu Gly Val Gly Ala Val Asp Ser Val Ala Asp
1               5                   10                  15
Pro Gly Thr Arg Ala Ala Leu Arg Ser Leu Phe Ser Glu Ser Leu Thr
            20                  25                  30
Phe Arg Asn Pro Pro Pro Pro Glu Ala Arg Ile Ala Ala Arg Arg Ser
        35                  40                  45
Ser Leu Pro Pro Val Gly Leu Gly Arg Gly Gly Ala Ala Pro Leu Ala
```

```
    50                  55                  60
Gly Gly Gly Gly Gly Gly Ala Pro Ala Pro Gly Gly Gly Gly Gly Gly
65                  70                  75                  80
Gly Gly Ala Glu Pro Pro Gly Ala Gly Gly Gly Gly Gly Gly Gly Gly
                85                  90                  95
Gly Pro Pro Ile Asp Gly Gly Gly Gly Gly Gly Gly Gly Ala Gly Gly
            100                 105                 110
Pro Glu Leu Thr Gly Gly Gly Gly Gly Gly Asp Gly Gly Thr Leu Val
        115                 120                 125
Glu Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Thr Ala Leu Val Thr
    130                 135                 140
Gly Gly Gly Gly Val Gly Arg Glu Ala Ala Gly Thr Gly Gly Gly Gly
145                 150                 155                 160
Gly Gly Gly Thr Gly Leu Arg Ala Gly Gly Gly Gly Gly Gly Pro Ala
                165                 170                 175
Ala Glu Val Gly Thr Cys Gly Thr Leu Gly Gly Ser Cys Gly Gly Val
            180                 185                 190
Ala Gly Leu Arg Gly Gly Gly Gly Gly Gly Pro Gly Val Pro Ser
        195                 200                 205
```

<210> 37745
<211> 86
<212> PRT
<213> A.fumigatus

<400> 37745

```
Cys Arg Ala Ser Ser Ala Ser Ser Ala Ser Ser Pro Phe Asn Glu Cys
1               5                   10                  15
Ser Thr Ile Thr Ser Pro Ser Ser Ser Ser Glu Leu Arg Ala Thr Arg
            20                  25                  30
Ser Ser Ala Ser Ser Ser Ser Pro Val Asn Arg Arg Ala Ser Thr Thr
        35                  40                  45
Pro Ala Ala Ser Ala Gly Ser Trp Arg Leu Cys Ala Ser Pro Thr Ser
    50                  55                  60
Ala Ser Ser Trp Cys Arg Cys Thr Ser Pro Thr Ser Pro Cys Glu Trp
65                  70                  75                  80
Arg Gly Ser Thr Ser Ala
                85
```

<210> 37746
<211> 216
<212> PRT
<213> A.fumigatus

<400> 37746

```
Ile Asn Asp Arg Leu Lys Tyr Gly Leu Leu Pro Arg Asp Leu Arg Lys
1               5                   10                  15
Ile Asp Ser Ser Thr Leu Pro His Ile Leu Val Arg Pro Ser Ala Ile
            20                  25                  30
Leu Ile Asn Leu Leu His Leu Arg Val Leu Ile Lys His Asp Arg Val
        35                  40                  45
Leu Val Phe Asp Ala Tyr Gly Ser Thr Asp Ser Tyr Met Gln Ser Leu
    50                  55                  60
Phe Val Tyr Asp Leu Glu Gly Lys Leu Gln Gln Lys Gln Thr Gly Gly
65                  70                  75                  80
Phe Gly Ala Leu Pro Tyr Glu Phe Arg Ala Leu Glu Ala Val Leu Ile
```

```
                85                  90                  95
Ser Val Thr Thr Gly Leu Glu Glu Glu Phe Asn Gly Val Arg Glu Pro
            100                 105                 110
Val Val Arg Val Leu Arg Ala Leu Glu Glu Asp Ile Asp Arg Asp Lys
        115                 120                 125
Leu Arg His Leu Leu Ile Tyr Ser Lys Lys Leu Gly Thr Phe Glu Gln
    130                 135                 140
Lys Ala Arg Leu Val Arg Asp Ala Ile Asp Asp Leu Leu Glu Ala Asp
145                 150                 155                 160
Asp Asp Leu Ala Ala Met Tyr Leu Thr Glu Arg Ala Asn Gly Val Gln
                165                 170                 175
Arg Glu Glu Asp Asp His Gln Glu Val Glu Met Leu Leu Glu Ser Tyr
            180                 185                 190
His Lys Val Cys Asp Glu Ile Val Gln Ala Ser Gly Asn Leu Val Thr
        195                 200                 205
Ser Ile Arg Asn Thr Glu Glu Val
    210                 215
```

<210> 37747
<211> 204
<212> PRT
<213> A.fumigatus

<400> 37747

```
Val Phe Leu Phe Gly Pro Asn Trp Ser Gly Tyr Ala Val Thr Asp Cys
1               5                   10                  15
Phe Ser Val Lys Ala Ile Leu Asp Ala Asn Arg Asn Ser Leu Met Leu
            20                  25                  30
Leu Asp Leu Lys Phe Ser Ile Gly Thr Leu Gly Leu Ala Thr Gly Thr
        35                  40                  45
Leu Phe Ser Ala Leu Tyr Gly Met Asn Leu Lys Asn Phe Ile Glu Glu
    50                  55                  60
Ser Asp Leu Gly Phe Gly Ala Val Ser Met Thr Cys Phe Met Ile Thr
65                  70                  75                  80
Ala Val Val Cys Val Tyr Gly Leu Ala Lys Leu Arg Lys Leu Gln Arg
                85                  90                  95
Val Arg Met Trp Gly Glu Ala Gly Val Gly Gly Ala Pro Leu Thr Pro
            100                 105                 110
Leu Thr Thr Arg Ser Gly Ile Leu Ser Gly His Arg Ser Asn Trp Arg
        115                 120                 125
Ala Asp Ser Ile Glu Pro Val Trp Gly Ser Leu Pro Gly Glu Ala Arg
    130                 135                 140
Thr Glu Arg Ile Lys Arg Leu Arg Glu Thr Ala Ala Ala Ala Ala Ala
145                 150                 155                 160
Arg Ser Ala Ser Ala Asp Ala Thr Ala Gln Arg Ala Ser Ala Leu Arg
                165                 170                 175
Ser Ser Ala Asn Ala Asn Gly Gly Ala Pro Lys Gly Ser Glu His Ser
            180                 185                 190
Pro Thr Arg Glu Thr Glu Ala Ser Gly Ser Ser Ala
        195                 200
```

<210> 37748
<211> 243
<212> PRT
<213> A.fumigatus

<400> 37748
Leu Gly Thr Pro Gly Pro Pro Pro Pro Pro Pro Arg Ser Pro Ala Thr
1 5 10 15
Pro Pro Gln Leu Pro Pro Lys Val Pro His Val Pro Thr Ser Ala Ala
20 25 30
Gly Pro Pro Pro Pro Pro Pro Ala Arg Asn Pro Val Pro Pro Pro Pro
35 40 45
Pro Pro Pro Val Pro Ala Ala Ser Arg Pro Thr Pro Pro Pro Pro Val
50 55 60
Thr Ser Ala Val Pro Pro Pro Pro Pro Pro Pro Pro Pro Pro Ser Thr
65 70 75 80
Ser Val Pro Pro Ser Pro Pro Pro Pro Pro Pro Val Ser Ser Gly Pro
85 90 95
Pro Ala Pro Pro Pro Pro Pro Pro Pro Pro Ser Ile Gly Gly Pro Pro
100 105 110
Pro Pro Pro Pro Pro Pro Pro Ala Pro Gly Gly Ser Ala Pro Pro Pro
115 120 125
Pro Pro Pro Pro Pro Gly Ala Gly Ala Pro Pro Pro Pro Pro Pro Ala
130 135 140
Ser Gly Ala Ala Pro Pro Leu Pro Lys Pro Thr Gly Gly Arg Glu Asp
145 150 155 160
Leu Leu Ala Ala Ile Arg Ala Ser Gly Gly Gly Gly Leu Arg Lys Val
165 170 175
Lys Asp Ser Glu Lys Arg Asp Arg Ser Ala Ala Leu Val Pro Gly Ser
180 185 190
Ala Thr Glu Ser Thr Ala Pro Thr Pro Ser Ser Gly Gly Ala Ala Gln
195 200 205
Gly Gly Leu Ala Gly Ala Leu Gln Asp Ala Leu Ala Lys Arg Lys Gln
210 215 220
Lys Val Ser Gly Ser Gly Lys Phe Leu Pro His Gln Leu Phe Ala Ser
225 230 235 240
Lys Thr Ser

<210> 37749
<211> 306
<212> PRT
<213> A.fumigatus

<400> 37749
Val His Arg Val Phe Phe Leu Leu Ser Pro Leu Ile Pro Leu Arg Val
1 5 10 15
Ala Leu Thr Asn Ser Gly Ser Ser His Val His Ser Pro Leu Ala Ala
20 25 30
Phe Ser Leu Thr Pro Ser Lys Thr Ser Val Arg Ala Gly Ser Ala Glu
35 40 45
Thr Arg Glu Arg Arg Arg His Asp Pro Phe Leu Met Ala Gln Ser Arg
50 55 60
Gln Arg Lys Ala Ala Asn Leu Ser Arg Gln Gln Ala Leu Ala Arg Glu
65 70 75 80
Arg Glu Glu Ser Leu Gly Asp Pro Val Glu Ser Lys Pro Thr Pro Phe
85 90 95
Ile Glu Glu Leu Lys Gly Leu Lys Ala Pro Thr Ser Glu Asp Ala Ala
100 105 110
Leu Asn His Phe Ile Ser Pro Glu Gly Leu Gln Glu Ala Leu Glu Tyr
115 120 125

```
Ser Lys Ser Leu Thr Ser Pro Leu Glu Asn Pro Asp Arg Glu Thr Ala
    130                 135                 140
Asp Pro Gln Leu Glu Lys Glu Ala Ala Glu Arg His Leu Gln Glu His
145                 150                 155                 160
Arg Asn Ala Gln Glu Ala Ile Arg Arg Ile Ile Asn Ile Asn Asn Gly
                165                 170                 175
Asn Thr Lys Asp Arg Thr Arg Leu Leu Ile Gln Lys Cys Ile Asp Thr
            180                 185                 190
Phe Gly Arg His Asn Thr Asp Lys Ile Leu Pro Pro Lys Pro Thr Ala
        195                 200                 205
Val Ala Gln Asp Ser Ser Thr Val His Pro Lys Lys Thr Pro Arg Ile
    210                 215                 220
Gly Pro Asp Thr Gly Ser Pro Glu Val Gln Val Ala Ile Leu Thr Ala
225                 230                 235                 240
Lys Ile Ile Asn Leu Ser Arg His Leu Gln Ser Thr Asn Lys Asp Lys
                245                 250                 255
His Asn Lys Arg Asn Leu Arg Leu Leu Val His Lys Arg Gln Lys Leu
            260                 265                 270
Leu Arg Tyr Leu Arg Arg Lys Glu Arg Gly Gly Pro Arg Trp Gln His
        275                 280                 285
Leu Ile Glu Thr Leu Gly Leu Ser Asp Ala Ala Trp Lys Gly Glu Ile
    290                 295                 300
Ser Met
305

<210> 37750
<211> 268
<212> PRT
<213> A.fumigatus

<400> 37750
Gly Arg Ser Gly Arg Ala Gly Gly Pro Val Thr Thr Val Ser Leu Pro
1               5                   10                  15
Ala Gly Gly Gly Ser Ser Gly Ser Arg Glu Gly Gly Ala Arg Asn Thr
            20                  25                  30
Ser Thr Arg Ser Leu Gly Ile Pro Val Leu Thr Ser Glu Ala Gly Leu
        35                  40                  45
Asp Ser Thr Gly Ala Asn Leu Leu Ser Thr Gly Asp Leu Ser Leu Ile
    50                  55                  60
Gly Asn Leu Leu Val Leu Leu Gly Phe Arg Val Thr Val Glu Val Glu
65                  70                  75                  80
Ile Asp Asn Asn Val Pro Leu Gly Leu Thr Ser Gly Glu Ser Thr Thr
                85                  90                  95
Glu Thr Glu Asn Phe Thr Gly Lys Gln Pro Pro Asp Gln Thr Asn Gly
            100                 105                 110
Val Thr Thr Leu Val Val Gly Gly Asp Gly Asn Ile Asn Glu Leu Gly
        115                 120                 125
Gly Gly Val Ser Val Ala Glu Ser Asp Asp Gly Asp Val Asp Val Ala
    130                 135                 140
Gly Leu Leu Asp Ser Leu Ser Ile Gly Ala Arg Val Gly Asp Asp Asp
145                 150                 155                 160
Glu Ala Gly Leu Leu Glu Arg Thr Gly Asp Val Val Gly Glu Val Thr
                165                 170                 175
Gly Gly Glu Thr Thr Gly Asn Gly Gly Gly Thr Gly Val Arg Ser Glu
            180                 185                 190
Leu Gln Asp Ser Thr Leu Ala Val Gly Thr Ser Gly Asp Asp Thr Asp
```

```
        195                 200                 205
Val Gly Gly Val Leu Asn Gly Ser Asp Asp Thr Ser Ser Gln Glu Asp
    210                 215                 220
Leu Leu Pro Thr Asn Ser Arg Ser Arg Ile Arg Ala Ser His Gln Ser
225                 230                 235                 240
Pro Asp Asn Gln Lys Phe Lys Ala Thr Tyr Gln Val Leu Pro Met Leu
                245                 250                 255
Met Thr Leu Thr Pro Ser Gly Arg Val Phe Gln Arg
            260                 265
```

<210> 37751
<211> 255
<212> PRT
<213> A.fumigatus

<400> 37751

```
His Trp Gln Asp Leu Val Cys Arg Leu Glu Phe Leu Ile Ile Gly Thr
1               5                   10                  15
Leu Val Thr Gly Ser Asn Thr Gly Ser Arg Ile Cys Arg Glu Lys Ile
            20                  25                  30
Leu Leu Ala Ala Arg Ile Ile Ala Ala Ile Glu Asn Pro Ala Asp Ile
        35                  40                  45
Cys Val Ile Ser Ala Arg Pro Tyr Gly Gln Arg Ala Val Leu Lys Phe
    50                  55                  60
Ala Ser His Thr Gly Ala Thr Ala Ile Ala Gly Arg Phe Thr Pro Gly
65                  70                  75                  80
Asn Phe Thr Asn Tyr Ile Thr Arg Ser Phe Lys Glu Pro Arg Leu Ile
                85                  90                  95
Ile Val Thr Asp Pro Arg Thr Asp Ala Gln Ala Ile Lys Glu Ala Ser
            100                 105                 110
Tyr Val Asn Ile Pro Val Ile Ala Leu Cys Asp Thr Asp Ser Pro Thr
        115                 120                 125
Glu Phe Val Asp Val Ala Ile Pro Thr Asn Asn Lys Gly Arg His Ala
    130                 135                 140
Ile Gly Leu Ile Trp Trp Leu Leu Ala Arg Glu Val Leu Arg Leu Arg
145                 150                 155                 160
Gly Thr Leu Ala Thr Arg Glu Thr Glu Trp Asp Val Val Val Asp Leu
                165                 170                 175
Tyr Phe Tyr Arg Asp Pro Glu Ala Glu Glu Asn Lys Glu Ile Ala Asp
            180                 185                 190
Glu Ala Lys Val Pro Gly Ala Glu Glu Ile Gly Ala Gly Ala Val Glu
        195                 200                 205
Ser Gly Phe Ala Gly Glu Asn Trp Asp Thr Gln Ala Pro Gly Ala Gly
    210                 215                 220
Val Pro Gly Thr Ala Phe Ser Ala Ala Thr Ala Ala Pro Thr Ser Trp
225                 230                 235                 240
Glu Ala Asp Gly Gly Asp Trp Ala Ala Ser Ser Ala Ala Pro Ala
                245                 250                 255
```

<210> 37752
<211> 69
<212> PRT
<213> A.fumigatus

<400> 37752

```
Gln Tyr Gln Ser Thr Thr Met Ala Pro Ser Gln Leu Pro Pro Ile Phe
```

```
1               5                   10                  15
Asn Pro Thr Pro Gln Asp Ile Glu Met Leu Leu Ala Ala Gln Cys His
            20                  25                  30
Leu Gly Ser Lys Asn Leu Gln Val His Met Glu Pro Tyr Leu Trp Lys
        35                  40                  45
Thr Arg Pro Asp Gly Val Asn Val Ile Asn Ile Gly Lys Thr Trp Tyr
    50                  55                  60
Val Ala Leu Asn Phe
65
```

<210> 37753
<211> 68
<212> PRT
<213> A.fumigatus

<400> 37753

```
Asp Thr Ile Arg Trp Ala Ser Asp Ile Phe Ala Val Gly Lys Thr Ser
1               5                   10                  15
Leu Ile Thr Arg Phe Met Tyr Asp Ser Phe Asp Asn Thr Tyr Gln Ala
            20                  25                  30
Thr Ile Gly Ile Asp Phe Leu Ser Lys Val Asp Phe Thr Ser Phe Thr
        35                  40                  45
Asp Asn Leu Arg Arg Arg Ser Arg Ile Leu Leu Arg Leu Pro Ile Thr
    50                  55                  60
Glu Tyr Ala Gly
65
```

<210> 37754
<211> 227
<212> PRT
<213> A.fumigatus

<400> 37754

```
Thr Met Tyr Leu Glu Asp Arg Thr Val Arg Leu Gln Leu Trp Asp Thr
1               5                   10                  15
Ala Gly Gln Glu Arg Phe Arg Ser Leu Ile Pro Ser Tyr Ile Arg Asp
            20                  25                  30
Ser Ser Val Ala Val Val Val Tyr Asp Ile Ser Asn Ala Lys Ser Phe
        35                  40                  45
Gln Asn Thr Arg Lys Trp Ile Asp Asp Val Arg Gly Glu Arg Gly Asn
    50                  55                  60
Asp Val Ile Ile Val Leu Val Gly Asn Lys Thr Asp Leu Asn Asp Lys
65                  70                  75                  80
Arg Glu Val Thr Thr Ala Gln Gly Glu Glu Glu Ala Lys Lys Asn Gly
                85                  90                  95
Leu Met Phe Ile Glu Thr Ser Ala Lys Val Gly His Asn Val Lys Gln
            100                 105                 110
Leu Phe Arg Arg Ile Ala Gln Ala Leu Pro Gly Met Glu Gly Glu Ala
        115                 120                 125
Asn Arg Glu Ser Gln Ser Gly Phe Ile Cys Cys Ser Arg Arg Leu Ala
    130                 135                 140
Ser Ser Glu Thr Asp Cys Ser Ser Tyr Ser Asp Arg Arg Gln Tyr Gln
145                 150                 155                 160
Pro Gln Arg Asp Asp Lys Gln Arg Trp Met Arg Val Leu Ile Leu Tyr
                165                 170                 175
Gln Pro Phe Asp Tyr Leu Phe Ile Ile Ala Thr Arg Pro Phe Asp Asp
```

```
            180                 185                 190
Leu Ile Ser Met Thr Ile Ile Glu Ile Val His Asn Val Leu Pro Phe
        195                 200                 205
Leu Ile Cys Thr Leu Pro Val Ser Ile Pro Cys Phe Arg Ser Asn Ser
    210                 215                 220
Val Leu Asp
225
```

<210> 37755
<211> 127
<212> PRT
<213> A.fumigatus

```
<400> 37755
Ser Cys Gln Leu Leu Thr Tyr Val Ile Arg Gly Ile Phe Leu Thr Gly
1               5                   10                  15
Ser Ser Ile Val Gly Gly Gly Val Lys Ala Pro Arg Ile Arg Thr Lys
            20                  25                  30
Asn Leu Ile Ser Ile Ile Phe Cys Glu Val Val Ala Ile Tyr Gly Val
        35                  40                  45
Ile Met Ala Ile Val Phe Ser Ser Lys Leu Asn Leu Val Glu Gly Asp
    50                  55                  60
Glu Ile Phe Ser Gly Ser Asn Tyr Tyr Thr Gly Tyr Ala Leu Phe Trp
65                  70                  75                  80
Gly Gly Ile Thr Val Gly Ala Cys Asn Leu Ile Cys Gly Ile Ser Val
                85                  90                  95
Gly Ile Asn Gly Ser Gly Ala Ala Leu Ala Asp Ala Ala Asp Pro Ser
            100                 105                 110
Leu Phe Val Pro Asp Pro Leu Ala Tyr Phe Leu Arg Thr His Ser
        115                 120                 125
```

<210> 37756
<211> 109
<212> PRT
<213> A.fumigatus

```
<400> 37756
Lys Asp His Leu Ile Ala Ala Asp Leu Lys Gln Ser Asp Thr Tyr Lys
1               5                   10                  15
Met Thr Glu Ser Arg Val Pro Ser Ser Arg Leu Gly Arg Leu Trp Gln
            20                  25                  30
Tyr Ser Gly Leu Ala Thr Ser Met Ala Phe Gly Ala Val Gly Glu Gly
        35                  40                  45
Leu Arg Arg Met Thr Gly Gly Lys Asp Asp Tyr Ala Gly Ser Ile Met
    50                  55                  60
Phe Ser Pro Gly Asn Met Glu Arg Leu Val Ala Lys Leu Ser Lys Met
65                  70                  75                  80
Arg Gly Ala Ala Leu Lys Leu Gly Gln Met Leu Ser Phe Gln Gly Trp
                85                  90                  95
Tyr Ser Gly Val Pro Pro Ser Leu Arg Cys Gly Gly His
            100                 105
```

<210> 37757
<211> 393
<212> PRT
<213> A.fumigatus

<400> 37757
Val Phe Arg Val Gly Ile Arg Glu Phe Leu Leu Pro Cys Val Val Val
1 5 10 15
Asp Thr Asn Ser Phe Ser Asp Asn Lys Met Leu Pro Glu Ala Ile His
20 25 30
Gln Val Leu Gln Arg Val Gln Asp Arg Ala Asp Tyr Met Pro Ala Ser
35 40 45
Gln Arg Asp Lys Val Leu Ala Asp Asn Leu Gly Pro Asn Trp Arg Asp
50 55 60
Leu Phe Ser Thr Phe Asp Glu Val Pro Met Ala Ala Ala Ser Ile Gly
65 70 75 80
Gln Val His Gly Ala Val Leu Lys Arg Thr Gly Gln Pro Val Ala Val
85 90 95
Lys Val Gln Tyr Pro Gly Val Ala Glu Ser Ile Asp Ser Asp Leu Asn
100 105 110
Asn Leu Ser Ile Leu Leu Thr Ala Ser Arg Leu Leu Pro Arg Gly Leu
115 120 125
Tyr Leu Asp Lys Thr Ile Ala Asn Ala Arg Thr Glu Leu Ala Trp Glu
130 135 140
Cys Asp Tyr Ile Arg Glu Ala Glu Cys Gly Asn Arg Phe Arg Glu Leu
145 150 155 160
Val Lys Asp Asp Pro Val Phe Leu Val Pro Glu Ile Ile Pro Glu Ala
165 170 175
Ser Gly Lys Gln Val Leu Thr Met Glu Arg Leu Glu Gly Ile Ala Val
180 185 190
Thr Lys Ile His Asp Phe Thr Gln Ala Gln Arg Asp Trp Ile Gly Thr
195 200 205
Gln Ile Leu Arg Leu Ser Leu Arg Glu Ile Thr Glu Phe Arg Phe Met
210 215 220
Gln Thr Asp Pro Asn Trp Thr Asn Phe Leu Tyr Asn Ala Lys Thr Asn
225 230 235 240
Lys Leu Glu Leu Leu Asp Phe Gly Ala Ser Arg Glu Tyr Pro Val Glu
245 250 255
Phe Ile Ser Lys Tyr Asn Arg Thr Leu Ile Ala Ala Ser Arg Asn Asp
260 265 270
Arg Glu Arg Cys His Ser Leu Ser Ile Glu Leu Gly Tyr Leu Thr Gly
275 280 285
His Glu Ser Lys Thr Met Val Asp Ala His Val Ser Ser Ile Leu Thr
290 295 300
Leu Ala Glu Pro Phe Met Asp Ser Ser Pro Asp Val Tyr Asp Phe Arg
305 310 315 320
Asn Gln Thr Ile Thr Asp Arg Val Arg Arg Leu Ile Pro Val Met Ile
325 330 335
Arg Glu Arg Leu Ser Pro Pro Pro Glu Glu Thr Tyr Ser Leu His Arg
340 345 350
Lys Leu Ser Gly Ala Phe Leu Leu Cys Ala Arg Leu Gly Ser Gln Val
355 360 365
Arg Cys Lys Glu Leu Phe Ala Asp Ala Ile Gln Lys Ala Glu Lys Ser
370 375 380
Gly Leu Asp Val Gly Ser Thr Arg Lys
385 390

<210> 37758
<211> 79
<212> PRT

<213> A.fumigatus

<400> 37758
Ala Arg Ile Ser Phe Phe Met Arg Glu Ser Thr Ile Leu Tyr Leu Pro
1 5 10 15
Phe Thr Pro Arg Gly Arg Pro Glu Ile Pro Leu Leu Ala Pro Leu Ala
20 25 30
Thr Thr Asn Phe Thr Cys Cys Leu Gly Phe Phe Leu Thr Ala Leu Leu
35 40 45
Ile Asn Phe Ala Met Val Cys Asp Leu Ser Leu Ser Leu Ser Ala Ser
50 55 60
Ser Ser Ala Ser Lys Ala Asp Phe Leu Arg Ser Phe Ser Ser Leu
65 70 75

<210> 37759
<211> 105
<212> PRT
<213> A.fumigatus

<400> 37759
Ala Ala Phe Ile Phe Leu Arg Pro Leu Ala Ser Ile Thr Phe Leu Met
1 5 10 15
Gly Arg Ala Leu Met Ala Arg Ser Phe Ser Leu Ile Ala Ala Ala Ala
20 25 30
Ala Phe Val Ile Gly Arg Trp Gly Leu Glu Cys Leu Phe Ser Ser Ser
35 40 45
Arg Asn His Ser Gly Arg Pro Ser Thr Ser Arg Lys Val Tyr Arg Leu
50 55 60
Lys Pro Ser Ser Ile Met Ser Trp Asp Phe Phe Ser Pro Val Ala Ile
65 70 75 80
Cys Trp Ala Ser Ala Met Ala Ser Ala Val Met Ile Ser Ile Ser Gly
85 90 95
Val Lys Lys Asp Val Ser Asp Ser Gly
100 105

<210> 37760
<211> 104
<212> PRT
<213> A.fumigatus

<400> 37760
Glu Val Ile Asp Asp Leu Ile Val Glu Leu Arg Cys Lys Gly Leu Val
1 5 10 15
Val Asp Gln Asn Asn Ile Cys Ala Phe Gln Asn Ile Asn Asp Ala Leu
20 25 30
Leu Leu Gln Lys Val Ala Thr Asp Lys Val Cys Phe Pro Trp Arg Asn
35 40 45
Thr Pro Glu Pro Ala Ala Cys Ser Lys Leu Gly Leu Leu Lys Phe Cys
50 55 60
Gln Val Thr Ser Ile Gly His His Leu Ala Ala Pro Thr Phe Thr Ser
65 70 75 80
Asn Phe Lys Arg Ser Leu Gln Asn Asp Ile Thr Asn Ser Arg Ser Lys
85 90 95
Ile Asp Lys Asp Val Pro Arg Phe
100

<210> 37761
<211> 172
<212> PRT
<213> A.fumigatus

<400> 37761

```
Ser Ser Ser Leu Ser Leu Ser Ile Ser Ala Ser Phe Pro Asp Ala Met
1               5                  10                  15
Thr Ser Leu Ala Pro Ser Leu Ser Thr Arg Phe Lys Glu Lys Val Ala
            20                  25                  30
Ser Ser Pro Pro Gly Pro Ser Cys Ser Met Pro Met Ser Ile Gly Val
        35                  40                  45
Val Ile Cys Ile Cys Met Arg Ile Ile Ser Leu Arg Phe Phe Ser Phe
    50                  55                  60
Ser Leu Arg Leu Ser Phe Leu Arg Leu Ala Leu Ser Phe Ser Trp Arg
65                  70                  75                  80
Arg Cys Ser Ser Ser Trp Met Ala Asn Ser Ser Ser Met Gly Ala Thr
                85                  90                  95
Ser Ala Thr Ser Ser Gly Ser Ser Ala Leu Ala Cys Pro Phe Leu Thr
            100                 105                 110
Thr Ser Pro Asn Phe Ser Arg Thr Phe Lys Arg His Arg Ser Arg Leu
        115                 120                 125
Arg Asn Ser Phe Leu Pro Arg Ile Phe Lys Ser Ser Gln Gln Val Arg
    130                 135                 140
Ile Ser Ser Val Val Ser Ser Ser Leu Phe Asn Val Ala Asn Ala Arg
145                 150                 155                 160
Ser Pro Pro Gly Asp Cys Ser Lys Leu Ser Leu Leu
                165                 170
```

<210> 37762
<211> 199
<212> PRT
<213> A.fumigatus

<400> 37762

```
Val Gly Thr Phe Gln Pro Glu Ser Leu Thr Ser Phe Phe Thr Pro Asp
1               5                  10                  15
Ile Asp Ile Ile Thr Ala Glu Ala Met Ala Leu Ala Gln Gln Met Ala
            20                  25                  30
Thr Gly Glu Lys Lys Ser Gln Asp Ile Ile Asp Asp Gly Phe Asn Arg
        35                  40                  45
Tyr Thr Phe Arg Asp Val Asp Gly Leu Pro Glu Trp Phe Leu Asp Asp
    50                  55                  60
Glu Asn Lys His Ser Lys Pro Gln Arg Pro Ile Thr Lys Ala Ala Ala
65                  70                  75                  80
Ala Ala Ile Lys Glu Lys Leu Arg Ala Ile Asn Ala Arg Pro Ile Lys
                85                  90                  95
Lys Val Met Glu Ala Lys Gly Arg Lys Lys Met Lys Ala Ala Gln Arg
            100                 105                 110
Leu Glu Lys Leu Arg Lys Lys Ser Ala Leu Leu Ala Asp Asp Glu Ala
        115                 120                 125
Leu Ser Glu Arg Asp Lys Ser Gln Thr Ile Ala Lys Leu Met Ser Lys
    130                 135                 140
Ala Val Lys Lys Lys Pro Lys Gln Gln Val Lys Leu Val Val Ala Arg
145                 150                 155                 160
Gly Ala Asn Arg Gly Ile Ser Gly Arg Pro Arg Gly Val Lys Gly Lys
```

```
                165                 170                 175
Tyr Lys Ile Val Asp Ser Arg Met Lys Lys Asp Ile Arg Ala Gln Lys
            180                 185                 190
Arg Leu Ala Lys Lys Lys Lys
        195
```

<210> 37763
<211> 75
<212> PRT
<213> A.fumigatus

<400> 37763

```
Phe Pro Ser Tyr Val Gly Arg Leu Leu Cys Ala Asn Ile Asp Gln His
1               5                   10                  15
Gly Lys Gly Arg Leu Asp Lys Trp Tyr Arg Leu Ala Lys Glu Lys Gly
            20                  25                  30
Tyr Arg Ala Arg Ala Ala Phe Lys Leu Ile Gln Leu Asn Lys Lys Tyr
        35                  40                  45
Gly Phe Leu Glu Lys Ser Lys Val Leu Leu Asp Leu Cys Ala Ala Pro
    50                  55                  60
Gly Val Arg Leu Val Thr Pro Phe Phe Ser Arg
65                  70                  75
```

<210> 37764
<211> 342
<212> PRT
<213> A.fumigatus

<400> 37764

```
Arg Lys Val Cys Thr Ser Gly Leu Val Ile Pro Val Thr Gln Ser Asn
1               5                   10                  15
Cys Leu Ile Trp Cys Arg Phe Asn Leu Val Val Pro Arg Asp Asn Asp
            20                  25                  30
Asp Phe Lys Pro Ile Asp Asp Ile Val His Val Ile Asp Ile Val Ser
        35                  40                  45
Glu Asn Tyr Ile Pro Glu Ser Glu Ala Asp Phe Phe Asn Asn Glu Ser
    50                  55                  60
Thr Gly Ile Lys Arg Arg Leu Arg Arg Ala Leu Ala His Ser Ser Glu
65                  70                  75                  80
Thr Glu Phe Arg Glu Ala Val Ala Ser Tyr Asn Arg Glu Ile Glu Arg
                85                  90                  95
Leu Arg Arg Ser Gly Ala Ile Ala Lys His Leu Asp Ala Thr His Arg
            100                 105                 110
Leu Asn Leu Pro Leu Val Glu Arg Ile Leu Thr Gln Ile Tyr Ala Arg
        115                 120                 125
Thr Val Ser Pro Arg Val Glu Ser Leu Arg Arg Tyr Glu Asn Gly Thr
    130                 135                 140
Asp Asn Val Tyr Gly Glu Leu Leu Pro Arg Phe Ile Ser Thr Ile Phe
145                 150                 155                 160
Lys Glu Thr Arg Leu Lys Ser Gly His Val Phe Val Asp Leu Gly Ser
                165                 170                 175
Gly Val Gly Asn Val Val Leu Gln Ala Ala Leu Glu Ile Gly Cys Glu
            180                 185                 190
Ser Trp Gly Cys Glu Met Met Ala Asn Ala Cys Asp Leu Ala Glu Leu
        195                 200                 205
Gln Gln Thr Glu Phe Arg Ala Arg Cys Arg Leu Trp Gly Ile Ala Pro
```

```
    210                 215                 220
Gly Lys Thr Asn Leu Val Arg Gly Asp Phe Leu Gln Glu Gln Ser Ile
225                 230                 235                 240
Ile Asp Val Leu Lys Arg Ala Asp Val Val Leu Ile Asn Asn Gln Ala
                245                 250                 255
Phe Thr Pro Gln Leu Asn Asn Glu Ile Ile Asn His Phe Leu Asp Met
            260                 265                 270
Lys Glu Gly Cys Gln Ile Val Ser Leu Lys Ser Phe Val Pro Ala Gly
        275                 280                 285
His Lys Ile Gln Ser Arg Asn Leu Tyr Ser Pro Ile Asn Leu Leu Lys
    290                 295                 300
Val Lys Gln Leu Asn Tyr Trp Ser Asn Ser Val Ser Trp Thr Asp Val
305                 310                 315                 320
Gly Gly Thr Tyr Phe Ile Ala Thr Lys Asp Ser Ser Arg Leu Lys Ala
                325                 330                 335
Phe Ala Asp Ser Met Glu
            340
```

<210> 37765
<211> 492
<212> PRT
<213> A.fumigatus

```
<400> 37765
Ser Trp Cys Gln Val Ala Ala Glu Cys Met Pro Thr Gln Ser Ile Ile
1                   5                   10                  15
Ile Gly Val Asp Leu Ala Pro Ile Lys Pro Ile Pro Arg Val Ile Thr
            20                  25                  30
Phe Gln Ser Asp Ile Thr Thr Glu Lys Cys Arg Ala Thr Ile Arg Gln
        35                  40                  45
His Leu Lys His Trp Lys Ala Asp Thr Val Leu His Asp Gly Ala Pro
    50                  55                  60
Asn Val Gly Thr Ala Trp Val Gln Asp Ala Phe Ser Gln Ala Glu Leu
65                  70                  75                  80
Val Leu Gln Ser Met Lys Leu Ala Thr Glu Phe Leu Val Glu Gly Gly
                85                  90                  95
Thr Phe Val Thr Lys Val Phe Arg Ser Lys Asp Tyr Asn Pro Leu Leu
            100                 105                 110
Trp Val Phe Lys Gln Leu Phe Thr Ser Val Glu Ala Thr Lys Pro Pro
        115                 120                 125
Ser Ser Arg Asn Val Ser Ala Glu Ile Phe Val Val Cys Arg Gly Phe
    130                 135                 140
Lys Ala Pro Lys Arg Ile Asp Pro Lys Phe Leu Asp Pro Lys His Val
145                 150                 155                 160
Phe Ala Glu Leu Thr Asp Ser Thr Pro Asn Asn Glu Ala Arg Val Phe
                165                 170                 175
Asn Pro Glu Lys Lys Lys Arg Lys Arg Glu Gly Tyr Glu Glu Gly Asp
            180                 185                 190
Tyr Thr Gln Phe Lys Glu Ile Pro Val Thr Glu Phe Ile Asn Thr Thr
        195                 200                 205
Asp Pro Ile Ala Ile Leu Gly Thr Tyr Asn Lys Leu Ser Phe Glu Gln
    210                 215                 220
Ser Pro Gly Gly Asp Leu Ala Leu Ala Thr Leu Asn Arg Leu Glu Glu
225                 230                 235                 240
Thr Thr Asp Glu Ile Arg Thr Cys Cys Glu Asp Leu Lys Ile Leu Gly
                245                 250                 255
```

```
Lys Lys Glu Phe Arg Ser Leu Leu Arg Trp Arg Leu Lys Val Arg Glu
            260                 265                 270
Lys Phe Gly Leu Val Val Lys Lys Gly Gln Ala Lys Ala Asp Glu Pro
        275                 280                 285
Glu Glu Val Ala Glu Val Ala Pro Met Asp Glu Glu Leu Ala Ile Gln
    290                 295                 300
Glu Glu Leu Gln Arg Leu Gln Glu Lys Glu Ser Ala Lys Arg Lys Lys
305                 310                 315                 320
Glu Arg Arg Lys Glu Asn Glu Lys Lys Arg Lys Glu Ile Ile Arg Met
                325                 330                 335
Gln Met His Met Thr Thr Pro Met Asp Ile Gly Met Glu Gln Leu Gly
            340                 345                 350
Pro Gly Gly Asp Asp Ala Thr Phe Ser Leu Lys Arg Val Glu Arg Asp
        355                 360                 365
Gly Ala Arg Asp Val Ile Ala Ser Gly Lys Leu Ala Glu Ile Glu Ser
    370                 375                 380
Asp Ser Glu Asp Asp Gln Thr Glu Ser Asp Tyr Asp Glu Ser Asp Asp
385                 390                 395                 400
Glu Gly Asp Arg Leu Glu Arg Glu Leu Asp Ser Leu Tyr Glu Gln Tyr
                405                 410                 415
Gln Glu Arg Arg Glu Asp Arg Asp Ser Lys Val Arg Ala Lys Lys Ala
            420                 425                 430
Arg Lys Asp Tyr Glu Ala Glu Glu Trp Asp Gly Phe Ser Asp Ser Asp
        435                 440                 445
Lys Glu Asp Asp Glu Glu Ser Glu Glu Asp Gly Ala Ser Gln Ala Val
    450                 455                 460
Val Lys Pro Ala Pro Pro Asn Ser Gly Thr Leu Ser Ser Lys Ala Ala
465                 470                 475                 480
Met Phe Phe Asp Gln Asp Ile Phe His Gly Tyr Arg
                485                 490

<210> 37766
<211> 190
<212> PRT
<213> A.fumigatus

<400> 37766
Leu Arg Ser Met Gly Phe Phe Asp His Leu Gln Lys Gly Gly Ala Phe
1               5                   10                  15
Ser Leu Gln Ala Gln Lys Pro Gln Ile Arg Lys Val Val Gln Thr Arg
            20                  25                  30
Pro Pro Pro Pro Ser Arg Ser Ser Ser His Thr Pro Val Arg Ser Ser
        35                  40                  45
Ser Gln Thr Ser Pro Pro Gly Arg Val Lys Arg Pro Arg Asp Ser Thr
    50                  55                  60
Ser Arg Ser Val Ser Arg Asp Pro Asp His Arg Pro Ser Lys Arg Leu
65                  70                  75                  80
Ser Thr Pro Leu Arg Asn Arg Lys Arg Pro Thr Pro Glu Gln Arg Phe
                85                  90                  95
Ser Ser Asp Asp Asp Ala Ser Asp Thr Asp Thr Ser Phe Glu Leu Arg
            100                 105                 110
Lys Arg Ala Arg Thr Glu Asp Ser Ala Glu Pro Asp Leu Ala Arg Arg
        115                 120                 125
Ile Arg Ser Leu Lys Ala Phe Ser Glu Glu Asn Val Lys Pro Leu Pro
    130                 135                 140
Leu Val His Ala Ala Asp Ile Thr Ser Lys Gln Lys Ala Gly Asn Phe
```

```
145                 150                 155                 160
Arg Arg Ala Phe Gly Gly Ala Asp Arg Pro Thr Glu Ile Leu Leu Gln
                165                 170                 175
Tyr Pro Ser Ala Ser Leu Lys Glu Arg Phe Ala Leu Gln Val
            180                 185                 190
```

<210> 37767
<211> 157
<212> PRT
<213> A.fumigatus

<400> 37767

```
Val Leu Ser Lys Ser Ser Phe Arg Cys Met Glu Leu Leu Thr Pro Ala
1               5                   10                  15
Ser Glu Lys Val Leu Gly Gln Leu Lys Gly Glu Glu Arg Glu Gly Leu
            20                  25                  30
Ile Asp Gln Ile Arg Pro Leu Leu Ser Gln Leu Lys Lys Phe Ser Tyr
        35                  40                  45
Gly Lys Gln Ile Val Ala Ile Glu Lys Leu Ile Phe Asp Ser Thr Thr
    50                  55                  60
Leu Gly Ala Asn Ser Leu Pro Pro Ala Ser Ser Thr Thr Pro Pro His
65                  70                  75                  80
Ser His Lys Ser Ser Pro Gln Pro Ser Lys Arg Leu Val Asn Asp Val
                85                  90                  95
Glu Asn Ser Arg Ala Pro Val Val Gly Ala Ala Pro Pro Thr Pro Pro
            100                 105                 110
Pro Thr Asp Asn Gln Gly His Thr His Gly Pro Ala Glu Ser Lys Asn
        115                 120                 125
Leu Ala Lys Ser Thr Val Thr Ser Leu Ser Val Ser Glu Ser Ala Ser
    130                 135                 140
Ala Asp Ser Asn Gly Ser Val Pro Val Ser Ala Ser Thr
145                 150                 155
```

<210> 37768
<211> 409
<212> PRT
<213> A.fumigatus

<400> 37768

```
Ser Phe Arg Val Gly Leu Ile Gly Val Lys Thr Thr Asp Ser Tyr Phe
1               5                   10                  15
Ser Ile Pro Ile Ser Ser Gly Ile Gly Ser Ser Ser Gly Gly Gly Asn
            20                  25                  30
His Lys Thr Tyr Leu Asn Ala Gly Ala Asp Gly Ile Ser Pro Cys Gly
        35                  40                  45
Tyr Gly Leu Ser Phe Gly Asn Phe Gly Gly Leu Arg Ser Gly Asp Gly
    50                  55                  60
Arg Arg His Pro Asn Ser Ser Ala Phe Gly Gly Ser Pro Val Gly Thr
65                  70                  75                  80
Gly Phe Pro Met Lys Gln Gly Phe Thr Thr Leu Asp Thr Thr Arg Pro
                85                  90                  95
Asp Glu Ile Thr Gly Ser Leu Thr Met Ser Ser Leu Pro Gln Ala Leu
            100                 105                 110
Pro Asp Thr Met Ser His Pro Leu Ala Arg Asn Gly Phe Ala His Ala
        115                 120                 125
Ser His Asn Ser Ala Ser Ile Thr Ser Gln Arg Pro Thr His Ala Ser
```

```
    130                 135                 140
His Pro Ser Phe His Ser Glu Ser Gln Gly Phe Glu Gly Arg Phe Gly
145                 150                 155                 160
Gly Ser Ser Met Asp Leu Ser Ala Glu Ile Asn Thr Leu Gln Leu Asn
                165                 170                 175
Glu Gly Gly Phe Ser Gly His Pro Val Ser Arg Pro Pro Tyr Leu Ser
            180                 185                 190
His Ser Ser Tyr Asp Gly Ser Leu Gln Arg Phe Lys Tyr Gln Ser Ala
        195                 200                 205
Ala Asp Glu Ser Ser Tyr Glu Ala Val Gly Gly Tyr Ala Gly Asp Gly
    210                 215                 220
Leu Ser Glu Leu Pro Leu Gly His His Ala Gly Arg Ser Arg Leu Gly
225                 230                 235                 240
Glu Gly Ser Leu Ser Pro Thr Asp Leu Ala Arg Met Glu Ser Thr Phe
                245                 250                 255
Tyr Ser Ala Leu Glu Ala Gly Ala Val Pro Gly Ser His Tyr Arg Asn
            260                 265                 270
Gly Ser Ala Thr Arg Leu Ser Glu Asn Gln Ala Leu Ala Leu Glu Arg
        275                 280                 285
Lys Leu Arg Ala Met Gln His Asp Gln Asp Leu Ala His Gly Ala Ala
    290                 295                 300
Asn Ser Leu Gln Arg Ile Pro Tyr Asn Thr Pro Ala Tyr Asp Leu Ala
305                 310                 315                 320
Gly Tyr Gln Ala Ala Arg Leu Asn Ala Leu Ser Gly Phe Tyr Pro Val
                325                 330                 335
Ala Gln Leu Gly Gly Leu Gly Ser Ala Gly Ile Ile Pro Arg Gly His
            340                 345                 350
Arg Asp Gln Asp Pro Ala Gln Val Val Arg Ser Pro Leu Leu Glu Glu
        355                 360                 365
Phe Arg Ala Asn Ser Lys Gly Asn Lys Arg Tyr Glu Leu Lys Val Cys
    370                 375                 380
Ile Phe Val Ser Leu Tyr Tyr Ser Arg Ala Lys Thr Ile Leu Ile Ile
385                 390                 395                 400
Leu Ala Gly His Leu Gln Ser His Cys
                405
```

<210> 37769
<211> 199
<212> PRT
<213> A.fumigatus

<400> 37769

```
Ala Leu Glu His Ile Leu Thr Asp Gln Gln Ala Ser Met Val Lys Glu
1               5                   10                  15
Leu Glu Asn His Val Leu Lys Cys Val Arg Asp Gln Asn Gly Asn His
            20                  25                  30
Val Ile Gln Lys Ala Ile Glu Arg Val Pro Ser Gln Tyr Val Gln Phe
        35                  40                  45
Ile Ile Asn Ala Phe Lys Gly Gln Val Ser Arg Leu Ala Ala His Pro
    50                  55                  60
Tyr Gly Cys Arg Val Ile Gln Arg Met Leu Glu His Cys Glu Glu Val
65                  70                  75                  80
Asp Arg Glu Ser Ile Leu Ala Glu Leu His Ala Cys Thr Ala His Leu
                85                  90                  95
Ile Pro Asp Gln Phe Gly Asn Tyr Val Ile Gln His Val Ile Glu Asn
            100                 105                 110
```

```
Gly Glu Glu Lys Asp Arg Ser Arg Met Ile Asn Val Val Leu Ser Gln
        115                 120                 125
Leu Leu Met Tyr Ser Lys His Lys Phe Ala Ser Asn Val Val Glu Lys
    130                 135                 140
Ser Ile Glu Phe Gly Glu Glu Ser Gln Arg Gln Gln Ile Ile Ser Thr
145                 150                 155                 160
Leu Thr Ser Ala Asn Glu Arg Gly Glu Ser Pro Leu Leu Gly Leu Met
                165                 170                 175
Arg Asp Gln Tyr Gly Asn Tyr Val Ile Arg Glu Ser Phe Pro Ser Pro
            180                 185                 190
Arg Phe Asp Val Trp Asn Cys
        195
```

<210> 37770
<211> 104
<212> PRT
<213> A.fumigatus

<400> 37770

```
Ser Leu Gln Asp Ile Tyr Asn His Ile Val Glu Phe Ser Gly Asp Gln
1               5                   10                  15
His Gly Ser Arg Phe Ile Gln Gln Lys Leu Glu Thr Ala Asn Ser Asp
            20                  25                  30
Glu Lys Glu Gln Val Phe Arg Glu Ile Gln Pro Asn Cys Leu Gln Leu
        35                  40                  45
Met Thr Asp Val Phe Gly Asn Tyr Val Val Gln Lys Leu Phe Glu His
    50                  55                  60
Gly Asn Gln Ser Gln Lys Lys Ile Leu Ala Asn Gln Met Lys Gly His
65                  70                  75                  80
Val Leu Ala Leu Ser Thr Gln Met Tyr Gly Cys Arg Val Val Gln Lys
                85                  90                  95
Val Trp Leu Leu His Ala Lys Gly
            100
```

<210> 37771
<211> 75
<212> PRT
<213> A.fumigatus

<400> 37771

```
Leu Asn Gly Ser Glu Ile Arg Pro Gly Pro His Trp Pro Ser Phe Pro
1               5                   10                  15
Ser Leu Gln Arg Glu Tyr Lys Val Gly Pro Phe Pro Pro Leu Leu Pro
            20                  25                  30
Leu Ser Leu Asp Ile Arg Glu Asp Thr Thr Gly Leu Ser Thr Ser Phe
        35                  40                  45
Leu Pro His Gly Ser Gly Ser Pro Cys Leu Val Ser Leu Cys Glu Met
    50                  55                  60
Ser Thr Lys Asp His Glu Val Glu Ala Ala Gln
65                  70                  75
```

<210> 37772
<211> 67
<212> PRT
<213> A.fumigatus

<400> 37772
Ala Thr Asn Ala Leu Pro Leu Asn Ser Arg Ala Ser Ser Leu Cys Ala
1 5 10 15
Cys Gln Pro Leu Asn His Arg Asn Ala Leu Thr Asn Pro Asn Thr Pro
20 25 30
His Ser Ala Glu Tyr Thr Phe Tyr Gln Ile Phe Cys Met Ser Ser Ala
35 40 45
Tyr Leu Asp Thr Glu Gly Val Ile Tyr Ile Ile Ala Gln Gly Arg Arg
50 55 60
Met Gly Arg
65

<210> 37773
<211> 74
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (13),(24)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37773
Cys Leu Glu Ala Leu Thr Gly Val Cys Ala Leu Gly Xaa Thr Leu Thr
1 5 10 15
Asn Ala Gln Ala Tyr Ser Pro Xaa Val Pro Leu Ala Gln Lys Glu Lys
20 25 30
Cys Asn Gln Val Gln Leu Gly His Cys Gln Leu Gln Ile Gly Phe Asp
35 40 45
Phe Phe Ser Leu Met Ala Leu Glu Thr Met Thr Leu Lys Thr Lys Arg
50 55 60
Pro Tyr Leu Ala His Trp Ala Pro Ile Ile
65 70

<210> 37774
<211> 239
<212> PRT
<213> A.fumigatus

<400> 37774
Leu Val Val Val Gln Gly Gln Tyr Val Lys Ser Leu Ser Phe Pro Ser
1 5 10 15
Met Pro Thr Phe Leu Arg Ile Phe Glu Pro Arg Tyr Cys Leu Met Ile
20 25 30
Arg Arg Val Met Glu Ser Arg Glu Arg Lys Phe Gly Met Val Met Tyr
35 40 45
Asn Arg Leu Gly Arg Pro Gln Gly Gln Leu Gly Ala Thr Gln Phe Met
50 55 60
Gln Tyr Gly Val Val Leu Arg Val Glu Arg Phe Glu Pro Leu Pro Gly
65 70 75 80
Gly Arg Ser Leu Ile Phe Ala Met Gly Val Ser Arg Phe Lys Val Ile
85 90 95
Lys Ser His Ile Val Asp Gly Tyr His Val Gly Gln Ile Gln Arg Val
100 105 110
Asp Asp Ile Pro Ile Ala Glu Glu Glu Asn Leu Glu Ser Trp Glu Thr
115 120 125

```
Ser Thr Ile Pro His Arg Ser Thr Glu Ala Arg Pro Ser Gln Gln Pro
    130                 135                 140
Leu Asp Ser Met Ser Thr Gln Glu Leu Phe Gln Leu Gly Leu Asp Phe
145                 150                 155                 160
Val Arg Lys Arg Arg Gly Glu Gly Ala Arg Trp Leu His Pro Arg Val
                165                 170                 175
Leu Met Ala Tyr Gly Asp Ile Pro Ser Asp Pro Ala Gln Phe Pro Trp
            180                 185                 190
Trp Leu Ala Cys Val Phe Pro Val Ser Glu Glu Glu Lys Tyr Ala Leu
        195                 200                 205
Leu Ser Ala Thr Ser Val Arg Glu Arg Leu Lys Ile Thr Ala Gln Trp
    210                 215                 220
Ala Arg Lys Ala Glu Ala Arg Glu Arg Tyr Val Leu Lys Cys His
225                 230                 235
```

<210> 37775
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37775

```
Leu Ala Val Pro Leu Leu Val Phe Gly Leu Ile Pro Leu Ala Leu Gly
1               5                   10                  15
Pro Ile Thr Ser Ser Thr Ser Val Arg Ser Ala Gly Val Leu Thr Ser
            20                  25                  30
Phe Ser Pro Leu Ser Phe Ser Val Ser Val Ser Phe Gly Ser Ala Ser
        35                  40                  45
Pro Ala Thr Tyr Tyr Ile Asn Gln Arg Trp Ile Ala Arg
    50                  55                  60
```

<210> 37776
<211> 71
<212> PRT
<213> A.fumigatus

<400> 37776

```
Pro Asn Leu Thr Ala Ala Lys Tyr Gly Arg Ala Asn Phe Pro Tyr Pro
1               5                   10                  15
Asn Asp Ser Leu Ser Glu Lys Ser Val Tyr Leu Tyr Thr Ser Thr Ala
            20                  25                  30
Asp Ile Ser Gln Thr Ser Arg Trp Leu Thr Thr Ala Phe Phe Leu Gly
        35                  40                  45
Ser Arg Leu Gln Glu Asp Gln Ile Ser Cys Arg Val Asp Leu Tyr Thr
    50                  55                  60
Ala Cys Thr Glu His Cys Lys
65                  70
```

<210> 37777
<211> 194
<212> PRT
<213> A.fumigatus

<400> 37777

```
Cys Met Ile Thr Tyr Gln Val Thr Gln Pro Tyr Val Val Ala Asp His
1               5                   10                  15
Ser Leu Leu Gln Ile Leu Val Tyr Gly Ala Asn Leu Pro Ser Leu Ser
```

```
            20                  25                  30
Pro Lys Val Ser Gly Glu Leu Tyr Glu Gln Gln Asp Tyr Asp Gly Leu
        35                  40                  45
Glu Ile Arg Pro Val Thr Gln Phe Lys Ser Ser Asn Asn His Gly Asn
    50                  55                  60
Ala Ser Cys Glu Val Gly Glu Asn Tyr Glu Asp Asp Pro Glu Asp Asp
65                  70                  75                  80
Gly Ile Val Ser Pro Asn Ser Asp Glu Lys Asp Asp Phe Asp Glu Ser
                85                  90                  95
Arg Ser Ala Asp Ser Glu Ser Ser Pro Ala Gly Gln Arg Thr Val Phe
            100                 105                 110
Ile Arg Gly Leu Pro Asp Arg Ala Thr His Gln Asp Val Val Asp Ala
        115                 120                 125
Val Arg Gly Gly Ala Leu Leu His Leu Tyr Leu Arg Ala Arg Asp His
    130                 135                 140
Ala Ala Tyr Val Ser Phe Val Glu Pro Ala Ala Ala Ala Glu Phe Leu
145                 150                 155                 160
Gln His Ala Lys Thr Leu Gly Cys His Ile Ser Gly Lys Arg Val Arg
                165                 170                 175
Lys Pro Ile Glu Thr Val Ala His Val Leu Val Leu Asn His Ser Ser
            180                 185                 190
Ser Ser
```

<210> 37778
<211> 136
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (94),(105)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37778

```
Val Glu Val Ser Trp Asn Asp Arg Gln Phe Tyr Leu Pro Pro Tyr Val
1               5                   10                  15
Gly Ser Lys Ile Arg Asn Gly Ala Thr Arg Asn Leu Val Ile His Asn
            20                  25                  30
Val Asn Ser Asn Ile Thr Glu Ser Ile Ile Arg Arg Asp Leu Asp His
        35                  40                  45
Ile His Asn Leu Ile Val Ile Thr Val Lys Phe Lys Gln Gly Asn Ala
    50                  55                  60
Tyr Ile Ser Thr Asn Ser Val His Asn Ala Leu Phe Ala Arg Ser Cys
65                  70                  75                  80
Met Met Ser Arg Gly Ala Tyr Arg Gly Met Arg Ile Gly Xaa Tyr Pro
                85                  90                  95
Asp Glu Cys Ala Gly Leu Leu Ser Xaa Arg Pro Ser Gly Pro Lys Arg
            100                 105                 110
Glu Val Gln Pro Ser Ser Ile Arg Ser Leu Ser Ala Ser Asn Arg Phe
        115                 120                 125
Arg Leu Leu Phe Leu Asp Gly Ser
    130                 135
```

<210> 37779
<211> 75

<212> PRT
<213> A.fumigatus

<400> 37779
Gly Val Val Gln Tyr Lys Tyr Met Cys Asn Gly Phe Asp Arg Leu Ser
1 5 10 15
Tyr Thr Leu Pro Gly Asn Met Thr Ala Lys Ser Phe Cys Met Leu Gln
20 25 30
Glu Phe Gly Ser Gly Ser Trp Phe Asn Lys Arg Asp Val Ser Gly Val
35 40 45
Ile Pro Ser Pro Lys Val Lys Val Gln Gln Ser Thr Ala Ser His Cys
50 55 60
Ile Asn Asp Ile Leu Met Cys Gly Pro Val Arg
65 70 75

<210> 37780
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37780
Phe Val Ala Leu Leu Arg Ala Arg Leu Leu Ser Val Tyr Pro Phe Leu
1 5 10 15
Ser Asp Gln Ile Cys Phe Ser Ala Arg Ile Glu Trp Ala Glu Ile Leu
20 25 30
Val Gln Ala Ala Ala Gln Arg Gly Met Pro Arg Ile Thr His Tyr Ile
35 40 45
Ile Ile Ile Val Leu Leu Phe Phe Ala Phe Gly Glu Val
50 55 60

<210> 37781
<211> 116
<212> PRT
<213> A.fumigatus

<400> 37781
Phe Thr Leu Phe Gly His Ala Arg Trp Leu Asn Arg Ala Arg Leu Leu
1 5 10 15
Arg Val Met Pro Glu Asn Arg Glu Ser Asn Thr Asp Asn His Asp Leu
20 25 30
Ser Ile Ser Gly Thr Thr Pro Thr Asn Thr Ala Val Pro Ile Tyr Leu
35 40 45
Pro Pro Thr Gln Leu His Asn Trp Thr Ala Ser Phe Leu Ala Pro Leu
50 55 60
Pro Leu Ala Gly Tyr Cys Met Ile Val Leu Leu Phe Pro Gly Pro Asn
65 70 75 80
Asp Ala Phe Gly Arg Gly Leu Pro Asn Ser Phe Pro Lys Phe Val Lys
85 90 95
Gly Tyr Trp Ile Cys Glu Thr Trp Pro Asn Gln Lys Ser Cys Arg Trp
100 105 110
Val Val Arg Gln
115

<210> 37782
<211> 64
<212> PRT

<213> A.fumigatus

<400> 37782
Ser Asp Ala Met Gly Lys Lys Gly Ala Lys Asn Lys Lys Lys Asn Asn
1 5 10 15
Asn Asn Asn Asn Lys Gln Arg Leu Pro Val Asn Asp Asn Lys Phe Ser
20 25 30
Leu Ser Glu Asp Asn Pro Thr Ala Glu Pro Gly Leu Ala Val Ala Ala
35 40 45
Glu Ala Gly Asp His Gly Gln Pro Thr Val Cys Thr Ala Ser Gln Val
50 55 60

<210> 37783
<211> 249
<212> PRT
<213> A.fumigatus

<400> 37783
Met Lys Val Leu His Arg Lys Ala Lys Lys Glu Thr Ala Thr Val Cys
1 5 10 15
Phe Gly Ile Pro Lys Cys Ile Lys Ser Gln Leu Thr Ser Phe Pro Glu
20 25 30
Asp Asp Phe Pro Glu Cys Asp Pro Ser Ala Glu Leu Asp Lys Val Glu
35 40 45
Ala Glu Lys Ala Glu Ala Ala Arg Gln Ala Glu Glu Asp Ala Lys Ala
50 55 60
Glu Glu Glu Ala Glu Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly Val
65 70 75 80
Pro Asp Asp Val Asp Ile Asp Ile Gly Asn Glu Asn Ser Pro Thr Asp
85 90 95
Thr Pro Asp Asn Glu Glu Ala Ala Pro Ala Gln Gly Asp Pro Pro Thr
100 105 110
Asn Glu Ser Ala Glu Glu Asp Val Thr Lys Pro Asp Thr Glu Asn Ser
115 120 125
Pro Ala Pro Asp Gly Pro Ala Glu Glu Gln Ser Asp Ser Pro Pro Glu
130 135 140
Ala Glu Gln Pro Val Ala Glu Val Gln Val Pro Thr Glu Glu Gln Pro
145 150 155 160
Ala Pro Lys Lys Pro Ala Pro Glu Pro Ser Ser Glu Glu Pro Ala Ala
165 170 175
Pro Thr Glu Thr Ala Glu Asn Asn Thr Ser Glu Glu Ala Val Ala Pro
180 185 190
Glu Gly Ala Thr Ala Asp Ile Ala Ala Asp Glu Thr Thr Lys Pro Glu
195 200 205
Ser Thr Asp Glu Lys Ala Pro Glu Glu Pro Ala Ala Ala Glu Ser Pro
210 215 220
Val Glu Asp Lys Gln Asp Glu Ala Thr Lys Ala Leu Ala Ala Ser Ser
225 230 235 240
Pro Arg Gly Trp Lys Glu Pro Arg His
245

<210> 37784
<211> 138
<212> PRT
<213> A.fumigatus

<400> 37784
Thr Ile Ile Ser Phe Pro Ser Leu Lys Thr Thr Leu Gln Pro Ser Leu
1 5 10 15
Ala Leu Gln Trp Pro Pro Arg Leu Gly Thr Met Ala Asn Leu Gln Tyr
20 25 30
Ala Gln Leu Pro Lys Phe Glu Tyr Gln Thr Phe Glu Arg Gln Tyr Gln
35 40 45
Thr Phe Asp Arg Gln Thr Leu Gln Phe Ser Phe Tyr Pro Val Thr Ala
50 55 60
Ala Ala Ser Ser Asp Gly Leu Thr Ser Asp Lys Asp Gln Asp Thr Thr
65 70 75 80
Asp Asn Ala Thr His Ser Glu Glu Gly Pro Ser Leu Glu Ser Ala Pro
85 90 95
Val Glu Glu Ser Gly Ser Pro Val Asp Ala Ala Pro Ala Pro Glu Ser
100 105 110
Glu Gly Thr His Asp Cys Gln Ser Pro Leu Ser Arg Phe Asp Arg Gly
115 120 125
Ser Pro Ser Ser His Ser Phe Arg Val Thr
130 135

<210> 37785
<211> 144
<212> PRT
<213> A.fumigatus

<400> 37785
Lys Asn Gln Val Leu Pro Leu Thr Leu Arg Leu His Pro Asn Leu Lys
1 5 10 15
Val Arg Met Ile Val Asn Arg His Phe Leu Ala Leu Ile Gly Val His
20 25 30
Leu Pro His Ile His Leu Glu Ser Pro Glu Ala Ala Ala Ala Pro Pro
35 40 45
Glu Pro Asp Pro Ser Asp Glu Pro Ala Pro Glu Ala Lys Glu Glu Ala
50 55 60
Glu Ser Ala Pro Glu Ala Asp Gly Thr Lys Gln Lys Ala Glu Asp Ala
65 70 75 80
Ala Asn Pro Ala Glu Pro Glu Thr Pro Ala Ala Thr Glu Asp Ala Ala
85 90 95
Gln Asp Ser Pro Pro Glu Asp Gly Asp Gly Ala Ala Ala Ala Val Asp
100 105 110
Glu Ser Pro Ala Pro Glu Ser Lys Glu Gly Asp Ser Asn Gly Met Leu
115 120 125
Trp Asp Thr Glu Met His Lys Lys Pro Ala Asn Leu Ile Pro Arg Gly
130 135 140

<210> 37786
<211> 261
<212> PRT
<213> A.fumigatus

<400> 37786
Trp Arg Gly Ser Phe Gln Pro Arg Gly Glu Asp Ala Ala Arg Ala Phe
1 5 10 15
Val Ala Ser Ser Cys Leu Ser Ser Thr Gly Leu Ser Ala Ala Ala Gly
20 25 30
Ser Ser Gly Ala Phe Ser Ser Val Asp Ser Gly Phe Val Val Ser Ser

```
        35                  40                  45
Ala Ala Ile Ser Ala Val Ala Pro Ser Gly Ala Thr Ala Ser Ser Glu
    50                  55                  60
Val Leu Phe Ser Ala Val Ser Val Gly Ala Ala Gly Ser Ser Glu Glu
65                  70                  75                  80
Gly Ser Gly Ala Gly Phe Leu Gly Ala Gly Cys Ser Ser Val Gly Thr
                85                  90                  95
Cys Thr Ser Ala Thr Gly Cys Ser Ala Ser Gly Gly Glu Ser Leu Cys
            100                 105                 110
Ser Ser Ala Gly Pro Ser Gly Ala Gly Leu Phe Ser Val Ser Gly Phe
        115                 120                 125
Val Thr Ser Ser Ser Ala Asp Ser Phe Val Gly Gly Ser Pro Cys Ala
    130                 135                 140
Gly Ala Ala Ser Ser Leu Ser Gly Val Ser Val Gly Glu Phe Ser Phe
145                 150                 155                 160
Pro Met Ser Ile Ser Thr Ser Ser Gly Thr Pro Ala Ala Ala Ala Ala
                165                 170                 175
Ala Ala Ala Ala Ser Ala Ser Ser Ser Ala Phe Ala Ser Ser Ser Ala
            180                 185                 190
Cys Arg Ala Ala Ser Ala Phe Ser Ala Ser Thr Leu Ser Ser Ser Ala
        195                 200                 205
Asp Gly Ser His Ser Gly Lys Ser Ser Ser Gly Asn Glu Val Ser Trp
    210                 215                 220
Leu Phe Met His Phe Gly Ile Pro Lys His Thr Val Ala Val Ser Phe
225                 230                 235                 240
Phe Ala Phe Arg Cys Arg Thr Phe Ile Tyr Arg Arg Cys Gly Thr Ile
                245                 250                 255
Thr Val Leu Gly Arg
            260
```

<210> 37787
<211> 168
<212> PRT
<213> A.fumigatus

<400> 37787

```
Val Ser Ser His Phe Gln Cys Gln Tyr Gln Arg His Gln Glu Pro Leu
1               5                   10                  15
Leu Gln Gln Leu Leu Gln Leu Leu Leu Leu Pro Pro Leu Leu Leu Leu
            20                  25                  30
His Leu Pro Pro Leu Ala Val Pro Leu Pro Leu Phe Arg Pro Arg Pro
        35                  40                  45
Tyr Arg Ala Pro Arg Met Gly His Ile Leu Gly Asn His Pro Leu Gly
    50                  55                  60
Met Arg Leu Ala Gly Phe Leu Cys Ile Ser Val Ser Gln Ser Ile Pro
65                  70                  75                  80
Leu Leu Ser Pro Ser Leu Leu Ser Gly Ala Gly Leu Ser Ser Thr Ala
                85                  90                  95
Ala Ala Ala Pro Ser Pro Ser Ser Gly Gly Glu Ser Cys Ala Ala Ser
            100                 105                 110
Ser Val Ala Ala Gly Val Ser Gly Ser Ala Gly Leu Ala Ala Ser Ser
        115                 120                 125
Ala Phe Cys Leu Val Pro Ser Ala Ser Gly Ala Asp Ser Ala Ser Ser
    130                 135                 140
Leu Ala Ser Gly Ala Gly Ser Ser Asp Gly Ser Gly Ser Gly Gly Ala
145                 150                 155                 160
```

Ala Ala Ala Ser Gly Asp Ser Lys
165

<210> 37788
<211> 452
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (403),(428)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37788
Gly Asp Val Arg Thr Lys Ser Val Ser Pro Glu Gly Ser Arg Glu Ala
1 5 10 15
Val Asp Met Ser Ile Lys Ser Arg Ile Ser Tyr Ile Leu Asp Asp Thr
20 25 30
Phe Glu His Ser Arg Ser Pro Ser Phe His Ser Ser Pro Val Thr Asp
35 40 45
Glu Arg Glu Val Thr Ala Leu Pro Leu Ser Arg Asn Pro Asp Val Ile
50 55 60
Arg Arg Gln Pro Ala Pro Pro Phe Lys Asp Arg His Val Glu Ser Thr
65 70 75 80
Val Lys Ile Glu Ser Asp Pro Phe Ile Thr Asp Ser Lys Asp Cys Ser
85 90 95
Lys Pro Asn Asp Val Phe Ser Ile Ile Asp Ser Ile Arg Ser Ser Ser
100 105 110
Pro Pro Val Gln Thr Pro Arg Glu Leu Gly Phe Met Thr Pro Pro His
115 120 125
Ala Arg Gln Leu Ser Asn Pro Ala Met Ser Thr His Ser Pro Arg Thr
130 135 140
Pro Thr Phe Pro Ala Val Ala Ile Glu Asn Glu Asp Gly Phe Phe Gly
145 150 155 160
Ser Ser Pro Thr Pro Gly Thr Arg Gly Arg Ala Gln Val Val Gly Ser
165 170 175
Thr Ile Pro Ser Thr Leu Thr Thr Glu Ala Met Asp Pro Cys Met Asn
180 185 190
Phe Asp Pro Pro Ser Ser Pro Pro Gly Ile Arg Ser Leu Ser Pro Asn
195 200 205
Ser Arg Asn Ile Ala Thr Pro Ser Asn Ile Pro Gln Met Pro Ser Asp
210 215 220
Ala Glu Lys Glu Asn Ile Arg Ala Val Leu Thr Gln Glu Lys Thr Thr
225 230 235 240
Val Asn Asp Val Thr Ser Glu Tyr Thr Gly Leu Gly Lys Glu Glu His
245 250 255
Cys Glu Thr Gly Gln Ser Glu Arg Pro Leu Lys Arg Arg Leu Arg Ser
260 265 270
Ser Met Gly Lys Gln Gln Ile Thr Asn Ala Pro Ala Val Leu Glu Pro
275 280 285
Glu Thr Pro Val Ala Arg Gln Glu Thr Glu Ser Val Pro Glu Pro Leu
290 295 300
Asn Asn Asp Lys Gly Gly Phe Leu Glu Ser Val His Val Val Glu Ser
305 310 315 320
Ala Pro Lys Met Asp Gln Glu Met Met Lys Gly Asn Val Asn Gln Glu
325 330 335

```
Glu Met His Thr Asp Pro Asp Cys Ile Ala Asp Ser Phe Ser Asp Asp
            340                 345                 350
Met Glu Thr Gln Val Ala Ser Gln Leu Glu Gln Asp Leu Glu Ser Ala
        355                 360                 365
Gly Asn Met Asn Glu Glu Pro Lys Ser Lys Ala Pro Ser Glu Pro Pro
    370                 375                 380
Ile Gln Gln Thr Thr Arg Lys Thr Ile Arg Gly Val Lys Glu Ala Asp
385                 390                 395                 400
Ala Gly Xaa Thr Ser Ser Thr Arg Glu Arg Arg Arg Ser Ser Arg Leu
                405                 410                 415
Ser Ser Thr Lys Asn Pro Ser Ala Val Arg Ser Xaa Arg Ile His Glu
            420                 425                 430
His Ser Trp Leu Glu Ile His Asp His Ser Phe Phe Ala Glu His Gln
        435                 440                 445
Val Phe Ala Arg
    450
```

<210> 37789
<211> 203
<212> PRT
<213> A.fumigatus

<400> 37789

```
Ser Ser Ile Gly Gly His Pro Ala Pro Ala Ile Ala Asp Glu Gly Gln
1               5                   10                  15
Tyr Arg Arg Gln Ser Ser Arg Thr Ala Arg Ser Arg Lys Gln Ala Lys
            20                  25                  30
Asn Lys Glu Leu Leu Ser Glu Ser Phe Ser Leu Lys Lys Leu Glu Ala
        35                  40                  45
Asp Ala Pro Asp Ser Val Met Glu Thr Pro Ala Ala Glu Ile Pro Asn
    50                  55                  60
Gln Asn Leu Thr Cys Ile Arg Glu Leu Thr Leu Glu Thr Tyr Val His
65                  70                  75                  80
Gly Ser Asn Leu Pro Lys Thr Ile Thr Pro Asp Ala Ser Val Gln Pro
                85                  90                  95
Ser Asn Ser Ser Ser Gly Asp Thr Glu Met Val Glu Ala Glu Pro Ala
            100                 105                 110
Ala Glu Pro Glu Pro Thr Asp Asp His Ala Gln Val Asn Ala Ala Gln
        115                 120                 125
Thr Asp Ala Asp Gly Asn Asn His Ala Pro Glu Asp Lys Ile Met Ile
    130                 135                 140
Ser His Ser Ala Gln Thr Gly Thr Leu Val Gly Gln Glu Gly Val Ile
145                 150                 155                 160
Ser Ser Leu Arg Arg Val Leu Asp Asp Val Lys Ser Thr Thr Leu Asn
                165                 170                 175
Leu Ser Ala Leu Lys Glu Ile Asp Asp Leu Leu Phe Asp Ile Arg Val
            180                 185                 190
Glu Met His Glu Ala Leu Arg Arg His Ala Gly
        195                 200
```

<210> 37790
<211> 152
<212> PRT
<213> A.fumigatus

<400> 37790

```
Leu Ile Gln Ile Arg Ala Val Ile Thr Ile Arg Tyr Arg Ser His Arg
1               5                  10                  15
Arg Glu Ala Glu Thr Arg Arg Leu Tyr Phe Leu Gly Arg Thr Ile Leu
            20                  25                  30
Ala Asp Val Asp Ile Ser Arg Gln Phe Pro Leu Ala Lys Leu Ser Ile
        35                  40                  45
Trp Arg Ala Leu His Arg Gly Lys Gln Ala Leu Gly Ala Glu Ser Asp
    50                  55                  60
Val Pro Asp Pro Ile Leu Cys Ser Ile Cys Met Glu Gln Leu Arg Asp
65                  70                  75                  80
Asp Glu Asp Val Arg Pro Leu Pro Cys Glu His Ile Phe His Pro Glu
                85                  90                  95
Cys Val Asp Pro Trp Leu Thr Arg Tyr His Thr Ser Cys Pro Leu Cys
            100                 105                 110
Arg Val Ser Leu Val Glu Asp Asp Gly Lys Leu Asp Leu Glu Asp Gly
        115                 120                 125
Arg Pro Pro Arg Leu Leu Thr Leu Pro Met Pro Pro Gln Pro Ala Leu
    130                 135                 140
Ile Gly Phe Ala Gly Arg Phe Gly
145                 150
```

<210> 37791
<211> 88
<212> PRT
<213> A.fumigatus

<400> 37791

```
Gln Ala Gln Arg Arg Val Leu Tyr His Arg Gln His Ser Val Ile Phe
1               5                  10                  15
Ala Ser Cys Ala Asn Ser Glu Arg Thr Gly Ile Tyr Asp Pro Ala Ala
            20                  25                  30
Arg Ala Ser Thr Lys Gln Pro Ser His Glu Tyr Thr Phe Ser Ser Asp
        35                  40                  45
Ala Tyr Phe Ser Ser Ser Cys Asn Arg Glu Arg Gly Trp Leu Leu Arg
    50                  55                  60
Leu Phe Pro Tyr Pro Trp His Gln Arg Gln Gly Thr Gly Gly Arg Leu
65                  70                  75                  80
Asn His Ser Leu Asp Val Asn Asn
                85
```

<210> 37792
<211> 102
<212> PRT
<213> A.fumigatus

<400> 37792

```
Ser Leu Val Cys Ile Ser Asp Gly Pro Phe Val Asn Gly Ser Leu Ala
1               5                  10                  15
Phe Trp Arg Cys Ile Val Val Gln Val Ser Lys Val Asp Asp Ser Val
            20                  25                  30
Tyr Asn Val Leu Leu Thr Ser Val Glu Val Asn Thr Asp Ala Arg Lys
        35                  40                  45
Arg Cys Arg Ser Arg Phe Thr Ser Ser Gly Pro Leu Tyr Leu Leu Asn
    50                  55                  60
Gln His Phe Pro Glu Lys Lys Trp Met Lys Phe Tyr Leu Tyr Tyr Glu
65                  70                  75                  80
```

```
Leu Ser Ser Pro Phe Ala Pro Thr Pro Glu Gly Gln His Ser Asp Arg
                85                  90                  95
Pro Thr Cys Lys Pro Asp
            100
```

<210> 37793
<211> 404
<212> PRT
<213> A.fumigatus

<400> 37793

```
Ile Arg Ile Leu Glu Ala Asp Ala His Glu Ile Leu Asn Val Asn Asp
1               5                  10                  15
Glu Gln Leu Ser Val Ala Glu Arg Ser Arg Ile Gln Lys Gly Lys Arg
            20                  25                  30
Lys Ser Ala Ser His Asn Thr Leu Ile Glu Leu Cys Ser Ser Glu Val
        35                  40                  45
Ser Tyr Asp Ser Thr Leu Trp Ser Lys Val Phe Pro Asn Ile Ile Arg
    50                  55                  60
Ile Ser Phe Glu Thr Cys Pro Phe Ala Val Thr Leu Gly Arg Glu Ile
65                  70                  75                  80
Val Cys Ala Arg Leu Val Gln Met His Lys Thr Ile Thr Ala Leu Ala
                85                  90                  95
Asp Ser Pro His Pro Pro Pro Tyr Ala Pro Ile Asp Pro Ala Gln Ala
            100                 105                 110
Arg Ala Leu Gly Arg Ser Asn Met Thr Ala Glu Ile Leu Ile Glu Gln
        115                 120                 125
Trp Lys Leu Tyr Leu Val Met Ala Cys Thr Thr Leu Asn Ser Val Gly
    130                 135                 140
Ala Gln Ser Gln Ser Gln Leu Ala Asn Ala Gln His Ala Arg Lys Ser
145                 150                 155                 160
Ser Lys Gly Ser Gln Gln Ser Gln Asp Lys Ile Ser Ser Ala Arg Ser
                165                 170                 175
Leu Phe Ala Phe Val Ile Pro Leu Leu Ser Ala Glu Arg Ser Ser Ile
            180                 185                 190
Arg Asn Ala Ile Val Met Ala Leu Gly Ser Ile Asn Lys Asn Leu Tyr
        195                 200                 205
Arg Thr Phe Leu Glu Ser Leu Gln Tyr Ala Val Thr Thr Cys Asn Glu
    210                 215                 220
Glu Ala Lys Ile Arg Ile Gly Ala His His Arg Ser Pro Ser Ser Pro
225                 230                 235                 240
Arg Arg Asn Arg Lys Thr Asp Arg Leu Arg Thr Glu Val Thr His Val
                245                 250                 255
Tyr Lys Leu Thr Ser His Phe Leu Arg Glu Pro Glu Val Tyr Asn Asp
            260                 265                 270
Asp Trp Ile Val Asn Asn Leu Val Thr Tyr Thr Lys Asp Leu Arg Ile
        275                 280                 285
Phe Leu Ser Asp Ala Glu Val Gln Asn Asp Trp Glu Phe Gln Arg Leu
    290                 295                 300
Arg Phe His Tyr Cys Gly Leu Met Glu Glu Leu Phe Glu Gly Ile Asn
305                 310                 315                 320
Arg Thr Lys Asp Pro Ser His Trp Ile Pro Phe Glu Ser Arg Lys Ser
                325                 330                 335
Ala Phe Ser Leu Met Glu Asp Trp Cys Gly Tyr Ser Pro Asn Gln Ala
            340                 345                 350
Gln Ile Ala Gln Arg Glu Glu Asn Met Arg Lys Phe Ala Met Ala His
```

```
        355                 360                 365
Gln Ser Glu Ser Gly Glu Phe Arg Asn Thr Ala Ala Ala Met Glu Ile
    370                 375                 380
Glu Lys Lys Asn Leu Arg Ala Ala Ala Leu Ser Ala Met Ala Ser Leu
385                 390                 395                 400
Cys Val Ser Ser
```

<210> 37794
<211> 709
<212> PRT
<213> A.fumigatus

<400> 37794

```
Gln Ala Gly Pro Ile Ser Ile Thr Thr Glu Ser Gly Ser Val Leu Gln
1               5                  10                  15
Phe Asp Val Gly Arg Met Leu Ser Trp Ile Asp Ile Ile Phe Asn Thr
            20                  25                  30
Leu Ser Asp Lys Trp His Ala Ile Gly Arg Arg Ala Leu Lys Asn Leu
        35                  40                  45
Ile Ile His Asn Lys Glu His Ser Tyr Leu Leu Glu Arg Ala Ile Glu
    50                  55                  60
Met Cys His Val Ser Glu Arg Pro Lys Ala Leu Glu Ser Tyr Phe Glu
65                  70                  75                  80
Val Val Thr Gln Val Leu Ile Glu His Thr Asp Tyr Pro Leu Gly Phe
                85                  90                  95
Trp Arg Ile Leu Gly Ala Val Leu Val Thr Leu Gly Asn Gln Lys Arg
            100                 105                 110
Glu Ile Arg Met Lys Ser Ala Lys Leu Leu Arg Ile Leu Glu Glu Arg
        115                 120                 125
Gln Gln Lys Ser Ser Arg Leu Gln Asp Phe Asp Ile Ser Ile Ser Asp
    130                 135                 140
Lys Thr Thr Ala Val Tyr Lys Leu Ala Gln Phe Glu Thr Ser Arg Arg
145                 150                 155                 160
Leu Ala Lys Gln His Ser Asp Leu Ala Phe Thr Leu Phe Ser Glu Phe
                165                 170                 175
Ser Leu His Phe Arg Asn Val Gly Pro Asp Ser Gln Arg Asn Met Val
            180                 185                 190
Ala Ala Ile Leu Pro Trp Val Gln Thr Met Glu Leu Gln Ile Asp Pro
        195                 200                 205
Asn Gly Gly Pro Thr Ala Lys Ser Tyr Met Leu Leu Ala Asn Leu Phe
    210                 215                 220
Glu Ile Thr Ile Arg Cys Gly Asn Ile Leu Pro Asn Glu Val Gln Ala
225                 230                 235                 240
Leu Trp Gln Ala Leu Ala Thr Gly Pro His Gly Gly Asn Val Gln Leu
                245                 250                 255
Val Leu Asp Phe Ile Ile Ser Leu Cys Leu Glu Arg Lys Glu Gln Asn
            260                 265                 270
Phe Val Glu Tyr Ala Lys Gln Val Val Val Phe Leu Ser Gly Thr Pro
        275                 280                 285
Ala Gly Ser Lys Val Ile Glu Phe Phe Leu Met Gln Val Val Pro Lys
    290                 295                 300
Asn Met Val Gln Glu Arg Lys Asp Ile Thr Pro Ala Pro Pro Asp Val
305                 310                 315                 320
Lys Ser Leu Pro Tyr Val Ala Asp Leu Gly Thr Val Leu Pro Val Gly
                325                 330                 335
```

```
Asn Lys Gln Ala Gly Leu Ser Leu Gly Gln Val Ala Leu Ile Phe Leu
            340                 345                 350
Val Asp Leu Met Val Ala Pro Val Thr Leu Pro Leu Glu Ala Val Val
        355                 360                 365
Lys Leu Leu His Val Val Leu Ile Leu Trp Asp His Tyr Met Leu Thr
    370                 375                 380
Val Gln Glu Gln Ala Arg Glu Met Leu Val His Leu Ile His Glu Leu
385                 390                 395                 400
Ile Ala Ala Lys Ile Asp Asp Asp Ala Pro Ala Ala Thr Arg Gln Gly
                405                 410                 415
Ile Glu Asp Phe Val Glu Ser Ile Arg Glu Ser Asp Pro Lys Val Val
            420                 425                 430
Trp Glu Tyr Glu Asp Asn Asn Asp Lys Glu Asp Gly Asp Asp Gly Ser
        435                 440                 445
Arg Val Pro Leu Ser Met Ser Thr Val Thr Arg Gln Val Val Asn Phe
    450                 455                 460
Phe Ser Phe Ala Tyr Glu Gly Val Ser Asp Leu Trp Ala Lys Glu Ala
465                 470                 475                 480
Leu Asn Trp Ala Thr Ser Cys Pro Val Arg His Leu Ala Cys Arg Ser
                485                 490                 495
Phe Gln Val Phe Arg Cys Ile Ser Thr Ser Leu Asn Pro Arg Met Leu
            500                 505                 510
Ala Asp Met Leu Ala Arg Leu Ser Asn Thr Ile Ala Asp Glu Glu Ala
        515                 520                 525
Asp Tyr Gln Thr Phe Ser Met Glu Ile Leu Thr Thr Leu Lys Ile Ile
    530                 535                 540
Ile Ser Ser Leu Ala Pro Ala Asp Leu Leu Arg Tyr Pro Gln Leu Phe
545                 550                 555                 560
Trp Thr Thr Cys Ala Cys Leu Asn Thr Ile His Glu Thr Glu Phe Ile
                565                 570                 575
Glu Ser Ile Gly Met Leu Glu Lys Phe Leu Asp Cys Val Asp Met Ser
            580                 585                 590
Asp Pro Ala Val Val Thr Glu Leu Ile Gln Gly Gln Pro Pro Lys Trp
        595                 600                 605
Glu Gly Gly Phe Asp Gly Leu Gln Asn Leu Val Tyr Lys Gly Leu Lys
    610                 615                 620
Ser Ser Glu Ser Leu Asn Arg Thr Leu Asp Val Leu His Arg Leu Ser
625                 630                 635                 640
Gly Leu Pro Asn Asn Ala Leu Ile Gly Asn Ser Asp Arg Leu Leu Phe
                645                 650                 655
Thr Ile Leu Ala Asn Met Ala His Phe Leu His Gln Phe Asp Pro Asp
            660                 665                 670
Val Asp Asp Pro Lys Thr Leu Ala Arg Ala Thr Leu Leu Ala Arg Val
        675                 680                 685
Ala Glu Gly Glu Gly Cys Pro Arg Leu Ala Ala Ser Leu Leu Gly Leu
    690                 695                 700
Ala Asn Gly Gln Tyr
705
```

<210> 37795
<211> 96
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (26)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37795
Leu Gln Glu Arg Asp Glu Thr Leu His Leu Asn His Arg Gln Ala Lys
1 5 10 15
Met Thr Ser Asn Gln Pro Pro Leu Arg Xaa Arg Gly Ile Val Ser Tyr
20 25 30
Gly Ser Tyr Lys Thr Gly Gly Trp Lys Leu Lys Asp Leu Thr Leu Arg
35 40 45
Pro Leu Lys Glu Lys Glu Leu Leu Ile Glu Ile Val Ala Ser Gly Ile
50 55 60
Cys Gln Thr Asp Leu His Phe Ala Gly Ala Glu Ser Gly Phe Gly Val
65 70 75 80
His Tyr Pro Arg Ile Met Gly His Glu Gly Ile Pro Tyr His Leu Ser
85 90 95

<210> 37796
<211> 317
<212> PRT
<213> A.fumigatus

<400> 37796
Thr Thr Gly Ala Gly Tyr Val Arg Glu Val Gly Ser Gly Val Gln Val
1 5 10 15
Ala Gln Ile Gly Asp Pro Val Ile Leu Ser Phe Ser Ala Cys Arg Ala
20 25 30
Cys Glu Ser Cys Glu Thr Gly His Pro Ala His Cys Ala Asn Phe Asn
35 40 45
Pro Ile Asn Phe Glu Val Glu Pro Asp Asn Leu Val Phe Ser Glu Glu
50 55 60
Ala Ser Thr Ala Thr Glu Pro Ser Ile Tyr Gly Arg Phe Phe Gly Gln
65 70 75 80
Ser Ser Phe Ala Ser Tyr Ser Ile Val Arg Glu Asp Ser Val Val Asn
85 90 95
Val Arg Gly Val Val Asp Ala Arg Ser Glu Leu Gln Leu Leu Ser Pro
100 105 110
Leu Gly Cys Gly Ile Gln Thr Gly Ser Gly Ala Ile Leu Asn Ala Ala
115 120 125
Lys Ala Thr Pro Lys Asp Arg Val Ala Val Leu Gly Leu Gly Gly Val
130 135 140
Gly Leu Ser Ala Val Met Gly Ala Lys Ile Ala Gly Cys Ala Gln Ile
145 150 155 160
Ile Gly Ile Glu Arg His Ala Ser Arg Leu Glu Leu Ala Lys Gln Leu
165 170 175
Gly Ala Thr His Val Val Gln Val Asp Thr Thr Ala Asp Pro Gln Ser
180 185 190
Val Ser Asp Ala Val Leu Ala Ala Thr Asn Asn Leu Gly Val Asn Ile
195 200 205
Val Leu Asp Thr Thr Gly Val Pro Ala Leu Ile Ala Gln Gly Val Arg
210 215 220
Met Ala Ser Phe Lys Gly Lys Val Leu Gln Val Gly Thr Ala Pro Glu
225 230 235 240
Thr Gly Thr Leu Thr Ile Pro Ile His Glu Phe Met Val Ala Gly Lys
245 250 255
Gln Tyr Met Gly Val Val Glu Gly Asp Val Asn Pro Lys Asp Tyr Val

```
            260                 265                 270
Pro Lys Met Val Lys Trp Val Arg Glu Gly Ser Leu Pro Leu Gln Lys
        275                 280                 285
Ile Val Lys Phe Tyr Lys Ala Glu Asp Phe Glu Gln Ala Ile Arg Asp
    290                 295                 300
Met Gln Ser Gly Glu Thr Ile Lys Pro Val Ile Val Trp
305                 310                 315
```

<210> 37797
<211> 162
<212> PRT
<213> A.fumigatus

<400> 37797

```
Ile Gly Met Val Asn Val Pro Val Ser Gly Ala Val Pro Thr Cys Arg
1               5                  10                  15
Thr Phe Pro Leu Asn Glu Ala Ile Arg Thr Pro Trp Ala Ile Ser Ala
            20                  25                  30
Gly Thr Pro Val Val Ser Ser Thr Met Phe Thr Pro Arg Leu Phe Val
        35                  40                  45
Ala Ala Lys Thr Ala Ser Asp Thr Leu Cys Gly Ser Ala Val Val Ser
    50                  55                  60
Thr Cys Thr Thr Cys Val Ala Pro Ser Cys Phe Ala Ser Ser Arg Arg
65                  70                  75                  80
Glu Ala Cys Leu Ser Ile Pro Met Ile Cys Ala Gln Pro Ala Ile Phe
                85                  90                  95
Ala Pro Ile Thr Ala Leu Asn Pro Thr Pro Pro Ser Pro Lys Thr Ala
            100                 105                 110
Thr Arg Ser Phe Gly Val Ala Phe Ala Ala Phe Arg Ile Ala Pro Leu
        115                 120                 125
Pro Val Trp Ile Pro Gln Pro Arg Gly Asp Ser Asn Trp Ser Ser Asp
    130                 135                 140
Leu Ala Ser Thr Thr Pro Arg Thr Leu Thr Thr Glu Ser Ser Arg Thr
145                 150                 155                 160
Ile Glu
```

<210> 37798
<211> 306
<212> PRT
<213> A.fumigatus

<400> 37798

```
Asn Gly Ala Gly Leu Gln Val Gln Gly Leu Leu Pro Ser Gly Gln Gln
1               5                  10                  15
Gly Arg Ser Ile Ala Ile Ile Ile Ala Lys Gly Pro Tyr Asn Ser Gln
            20                  25                  30
Asp Lys His Pro Thr Ser Pro Leu Leu Leu Pro Leu His Gln Arg Gly
        35                  40                  45
Arg Arg Asn Asn Ser Tyr Pro His Gln Ile His Arg Leu Arg Val Ser
    50                  55                  60
Thr Ser Leu Arg Glu Ala Leu Leu Leu Leu Gly Arg Leu Leu Ala Asp
65                  70                  75                  80
Arg Ile Gly Cys Glu Val Asp Pro Ile Gly Asn Glu Cys Ile Cys Arg
                85                  90                  95
Leu Asp Leu Gln Gln Thr Ala Asp Ser Phe Leu Arg Arg Cys Val Ser
```

```
            100                 105                 110
Asp Asn Cys Gly Ser His Ala Phe Asp Val Ser Ser Ala Val Ser Ile
        115                 120                 125
Tyr Ala Glu Tyr Cys Thr Ser Asn Gly Tyr Thr Arg Ala Thr Ser Thr
    130                 135                 140
Thr Gln Thr Thr Gly Thr Thr Ser Ser Gly Thr Pro Ile Ala Ser Ala
145                 150                 155                 160
Ala Val Thr Val Asn Val Met His Gly Ala Gly Val Trp Gly Thr Thr
                165                 170                 175
Ser Ala Ala Gly Gly Pro Trp Thr Asn Val Arg Thr Arg Leu Thr Val
            180                 185                 190
Val Tyr Ala Leu Val Ser Thr Ser Gln Ala Thr Ala Ala Thr Ser Thr
        195                 200                 205
Ser Glu Lys Ala Ser Asp Trp Thr Thr Glu Ser Thr Arg Gln Ser Val
    210                 215                 220
Pro Ser Ala Thr Leu Ser Thr Thr Thr Thr Ser Pro Thr Thr Asp Leu
225                 230                 235                 240
Val Thr Arg Glu Gly Asp Lys Thr Val Glu Gly Asp Gly Ser Lys Leu
                245                 250                 255
Lys Val Gly Glu Ile Val Gly Ile Val Val Gly Ile Leu Gly Leu Ile
            260                 265                 270
Ala Thr Ala Leu Gly Ser Trp Ser Ser Cys Lys Thr Leu Lys Gln Arg
        275                 280                 285
Lys His Leu Ala Ala Asn Ala His Lys Ala Pro Asn Tyr Leu Lys Leu
    290                 295                 300
Cys Ser
305
```

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<210> 37799
<211> 107
<212> PRT
<213> A.fumigatus

<400> 37799

```
Met Val Thr Gly Gln Gly Leu Thr Asn Asp Met Val Glu Leu Ala Asn
1                   5                   10                  15
Arg Arg Glu Ala Gln Thr Gly Ala Asp Glu Thr Ser Ile Asn Arg Ala
            20                  25                  30
Arg Glu Val Arg Leu Gly Ser Ala Pro Gly Gln Thr Lys Cys Ser Ile
        35                  40                  45
Cys His Ser Thr Phe Arg Arg Pro Glu His Leu Lys Arg His Phe Arg
    50                  55                  60
Ser His Thr Lys Glu Lys Pro Phe Glu Cys Ala Gln Cys Gly Arg His
65                  70                  75                  80
Phe Ser Arg Thr Tyr Val Val Ala Phe Phe Phe Phe Phe Phe Ile Ser
                85                  90                  95
Ile Phe Ile Ser Leu Pro Pro Leu Ser Leu Leu
            100                 105
```

<210> 37800
<211> 529
<212> PRT
<213> A.fumigatus

<400> 37800

```
Gly Ala Val Val Val Pro His Ala Val Arg Cys Glu Asn Arg Ser Leu
```

```
1               5                   10                  15
Glu Cys Gln Tyr Pro Thr Glu Arg Arg Ser Lys Ala Lys Thr Arg Lys
            20                  25                  30
Glu Val Ala Gln Asn Leu Ser Ser Glu Arg Asn Ser Thr Ile Tyr Gly
        35                  40                  45
Gln Ala Thr Gln Arg Glu Ser Pro Ser Ser Pro Ala Gly Ala Asp Val
    50                  55                  60
Pro Gly Ala Asp Ile Arg Glu Gln Pro Arg Asn Glu Pro Pro Gly Phe
65                  70                  75                  80
Gln Ile Thr Glu Phe Gln Leu Asp Leu Pro Gly Ser His Arg Val Asp
                85                  90                  95
Thr Pro Ser Lys His Met Pro Ala Glu Lys Pro His Gly Pro Pro Arg
            100                 105                 110
Gly Ile Ser Ser Glu His Gln Asn Gly Pro Pro Gly Asp Glu Thr Ala
        115                 120                 125
Asp Leu Asn Ala Arg Met Leu Leu Ser Asp Ala Gly Gly Ser Thr His
    130                 135                 140
Asp Ala Arg Val Ser Leu Pro Glu Tyr Ala Ser Leu Ser Ser Gln Gln
145                 150                 155                 160
Phe Tyr Ser Gln Leu Pro Ala Gly Gly Ala Gln Thr Leu Ser Gln Glu
                165                 170                 175
Ser Ala Ser Gln Leu Asp His Arg Ser Arg Asp Ile Gln Gln Pro Val
            180                 185                 190
Ala Ala Thr Ser Asn Leu Asn Leu Glu Leu Glu Gly Val Gly Gly Gln
        195                 200                 205
Gln Met Gln Leu Gly Phe Asp Pro Pro Phe Leu Asp Gln Ser Met Leu
    210                 215                 220
Ser Thr Leu Asn Trp Leu Pro Asn Asp Met Phe Pro Asp Thr Thr Ser
225                 230                 235                 240
Asp Gln Ser Leu Ser Arg Met Pro Pro Leu Ser Asp Gln Leu Gly Ile
                245                 250                 255
Leu Asp Glu Pro Val Ser Arg Thr Ala Trp Leu Pro Pro Val Thr Asp
            260                 265                 270
Leu Arg Gln Met Gly Pro Ser Ala Arg Glu Asn His Ser His Thr Pro
        275                 280                 285
Ser Gly His Met Ser Val Gly Thr Asp Ala Gly Ser Pro Asp Arg Phe
    290                 295                 300
Ser His Ser Ile Gly Glu Gly Ser Leu His Ser Glu Pro Ser Asn Ala
305                 310                 315                 320
Thr Lys Arg Ser Gly Asp Phe Tyr Val Asp Gly Ala Gly Ala Arg Leu
                325                 330                 335
Pro Lys Tyr Arg Arg Asn Arg Thr Ser Trp Ser Arg Leu Ser Ala Glu
            340                 345                 350
Pro Ile Glu Leu Leu Ala Pro Leu His Gln His Asp Thr Arg His Gln
        355                 360                 365
Phe Ser Phe Pro Leu Thr Gln Glu Ile Arg Pro Asp Phe Leu Pro Gly
    370                 375                 380
Glu Glu Ala Ala Ser Asn Cys Arg Ile Glu Ala Pro Thr Tyr Asp Arg
385                 390                 395                 400
Ile Tyr Gln Ser Phe Leu Gln Leu Cys Arg Thr Asp Asn Pro Leu Phe
                405                 410                 415
Leu Lys Phe Glu Thr Gly Asn Phe Pro Ser Ala Asp Ala Leu Ser Ser
            420                 425                 430
Tyr Val Tyr Leu Tyr Phe Asp Ser Phe Gln Pro Val Tyr Pro Leu Phe
        435                 440                 445
His Pro Pro Thr Phe Asn Pro Asn Lys Cys His Trp Leu Val Thr Leu
```

```
    450                 455                 460
Ala Ile Ser Ala Val Gly Cys Arg Phe Ser Gly Leu Thr Ser Leu Asp
465                 470                 475                 480
Glu Cys Thr Thr Ala Phe Asp Glu Phe Leu Arg Arg Ala Ile Asn Ile
                485                 490                 495
Glu Val Arg Pro Leu Ile Leu Ala Tyr Gly Leu Phe Ile Ala Asp Arg
            500                 505                 510
Val Trp Arg Ser Arg Lys Arg Asn Val Ala Gln Asn Glu Tyr Arg Cys
        515                 520                 525
Gly
```

<210> 37801
<211> 62
<212> PRT
<213> A.fumigatus

<400> 37801

```
Phe Met Ala Met Glu Arg Val Thr Cys Asn Ser Ser Gln Phe Ser Asn
1               5                   10                  15
Thr Ile Val Ile Gln Pro Gly Glu His Ser Asp Thr Glu Thr Ala Thr
            20                  25                  30
Ala Thr Val Ile Ser Gln Gln Gly Lys Gly Gly Glu Gly Asn Lys Asn
        35                  40                  45
Arg Asn Lys Lys Lys Lys Lys Glu Gly Asp Asp Ile Arg Ser
    50                  55                  60
```

<210> 37802
<211> 518
<212> PRT
<213> A.fumigatus

<400> 37802

```
Ser Asp Phe Gln Arg Met Asp Asp Lys Ser Arg Gly Thr Thr Asn Ala
1               5                   10                  15
Lys His Leu Ala Thr Asp Thr Asp His Pro Pro Asp Asp Gly Ser Ala
            20                  25                  30
Gly Leu Pro Glu Pro Gly Ser Val Lys Ser Lys Thr Gly Leu Phe Thr
        35                  40                  45
Ala Arg Ser Thr Gln Lys Ala Leu Asp Gly Glu Arg Asp Glu Phe Ala
    50                  55                  60
Thr Phe Arg Thr Arg Pro Pro Gln Gln Ala Ala Ile Ala Met Gln Lys
65                  70                  75                  80
Pro Pro Val Pro Val Asn Lys Pro Val Thr Leu Gly Arg Pro Asn Ser
                85                  90                  95
Thr Pro Glu Leu Arg Gln Thr Glu Ser Gln Gly Ser Asp Asp Arg Ala
            100                 105                 110
Glu Pro Gly Tyr Pro Met Ser Lys Pro Val Arg Asn Met Thr Ala Gly
        115                 120                 125
Ala Asp Thr Val Glu Asn Leu Leu Gln Asp Asn Arg Glu Leu Pro Val
    130                 135                 140
Arg Asn Pro Pro Ile Pro His Arg Asn Pro Ala Met His Ser Asp Thr
145                 150                 155                 160
Ser Pro Arg Pro Pro Asp Ile Ala Ser Val Ser Gly Thr Lys Pro Arg
                165                 170                 175
Pro Thr Pro Pro Pro Pro Arg Lys Gly Gly Ala Lys Pro Val Pro Lys
```

```
            180                 185                 190
Ser Pro Ser Arg Asn Glu Pro Lys Ile His Gly Glu Lys Gln Ser Tyr
        195                 200                 205
Ile Pro Leu Ser Asn Ser Asp Val Asp Leu Thr Gly Ala Asp Glu Ala
    210                 215                 220
Arg Pro Thr Leu Pro Pro Arg Pro Asp Pro Ser Arg Val Thr His Ile
225                 230                 235                 240
Pro Pro Ser Asp His Arg Ile Leu Leu Glu Ala His Glu His Ser Lys
                245                 250                 255
Arg His Leu Thr Pro Ser Ser Pro Leu Leu Asp Arg Ser Leu Gln Asn
            260                 265                 270
Asn Gly Ser Ser Pro Asp Leu Ile Asp Tyr Ser Pro Gly Leu Asp Glu
        275                 280                 285
Glu Ala Met Ser Asp Ala Ile Val Ala Ser Ser Leu Ala Ser Arg Lys
    290                 295                 300
Ala Phe Ser Ala Lys Lys Val Pro Pro Pro Pro Pro Pro Gln Arg Gln
305                 310                 315                 320
Leu Arg Thr His Pro Leu Leu Arg Pro Asn Thr Pro Ser Ser Asp Ser
                325                 330                 335
Pro Arg Ser Ser Ser Pro Ala Pro Ser Leu Arg His Thr Leu Arg Pro
            340                 345                 350
Ala Thr Lys Val Gly Glu Glu Glu Leu Asp His His Lys His Arg Lys
        355                 360                 365
His Ile Ile Arg Arg His Pro His Lys His His Glu Gly Asp Arg Lys
    370                 375                 380
Arg Trp Gln Ser Glu Val Thr Glu Lys Glu Arg Lys Arg Tyr Glu Gly
385                 390                 395                 400
Val Trp Ala Ala Asn Lys Gly Leu Leu Ile Pro Ile Ser Asn Ser Lys
                405                 410                 415
Glu Arg Ser Ser Leu Glu Glu Val Ser Cys Glu Gly Tyr Pro Pro Ser
            420                 425                 430
Ala Ser Glu Met Val Leu Asn Ile Ala Val Arg Glu Ile Trp Ala Arg
        435                 440                 445
Ser Arg Leu Pro Ser Ser Ile Leu Glu Lys Ile Trp Asn Leu Val Asp
    450                 455                 460
Arg Gln Lys Ile Gly Leu Leu Thr Arg Glu Glu Phe Val Val Gly Met
465                 470                 475                 480
Trp Leu Ile Asp Gln Gln Leu Lys Gly His Lys Leu Pro Val Glu Val
                485                 490                 495
Pro Gly Ser Val Trp Asp Ser Val Arg Gly Val Pro Gly Ile Arg Ile
            500                 505                 510
Pro Lys Val Pro Ser Arg
        515
```

<210> 37803
<211> 359
<212> PRT
<213> A.fumigatus

<400> 37803

```
Val Ser Cys Pro Ala Ser Val Leu Thr Gly Glu Ile Leu Thr Asp Asp
1               5                   10                  15
Asp Val Asp Lys Asp Ala Phe Asp Asp Ala Ser Glu Val Gln Thr Thr
            20                  25                  30
Ser Asn Pro Ser Leu Thr Val Ser Ile Pro Gln Ser Ser Ser Thr Arg
        35                  40                  45
```

```
Ser Leu Thr Asp Ser Pro Pro Ser Gly Thr Asn Ala Thr Ser Gln Phe
    50                  55                  60
Thr Glu Ala Pro Pro Leu Pro Ser Val Thr Gln Asn Glu Asp Lys Arg
65                  70                  75                  80
Asp Glu Asp Thr Glu Asp Ala Arg Ser Glu Arg Gln Ser Gly Thr Asp
                85                  90                  95
Glu Thr Pro Arg Arg Thr Arg Ser Pro Lys Ser Pro Leu Leu Thr Thr
            100                 105                 110
His Arg Leu Ser Thr Thr Ser Leu Asp Glu Val Asn Leu Ala Ser Asn
        115                 120                 125
Asn Leu Asp Glu Val Thr Leu Gln Asn His Asp Leu Ser Gln Glu Pro
    130                 135                 140
Met Ser Asp Val Pro Pro Val Pro Ser Arg Asn Ser Ala Ser Phe Ala
145                 150                 155                 160
Gln Ser Ile Pro Leu Gln Gly Leu Ser Gly Asn Leu Pro Ser Asn Ser
                165                 170                 175
Trp Gly Ser Pro Pro Val Asn Arg Thr Pro Ala Gln Ala Val Ser Ala
            180                 185                 190
Pro Ala Pro Pro Leu Thr Arg Lys Leu Thr Gly Pro Phe Ala Trp Leu
        195                 200                 205
Ser Arg Ser Ser Thr Ala Ser Arg Glu Val Lys Ser Pro Pro Pro Gln
    210                 215                 220
Thr Ser Arg Arg Asn Thr Ala Ala Ser Val Ser Thr Leu Ser Ser Asn
225                 230                 235                 240
Ser Glu Leu Thr Lys His Asp Gly Glu Asp Leu Asp Gly Ser Ala Ala
                245                 250                 255
Arg Arg Pro Arg Arg Ser Ser Leu Lys Asp Gln Phe Lys Leu Leu Arg
            260                 265                 270
Met Arg Asp Glu Gly Leu Val Ser Glu Asn Asp Gly Ala Ser Val Ala
        275                 280                 285
Ser Gly Arg Ala Ser Ile Ser His Ser Ala Gly Ser Pro Pro Ser Ile
    290                 295                 300
Pro Glu Glu Glu Glu His Val Ser Ala Pro Pro Leu Ala Ser Pro Gln
305                 310                 315                 320
Thr Val Pro Pro Thr Ala Asn Pro Asn Leu Pro Pro Gly Asn Ser Leu
                325                 330                 335
Gly Asn Ile Cys Phe Cys His Arg Cys Val Cys Ala Cys Arg Leu Gly
            340                 345                 350
Ala Val Ala Glu Thr Cys Lys
        355
```

<210> 37804
<211> 408
<212> PRT
<213> A.fumigatus

```
<400> 37804
His Gly Ile Pro Arg Tyr Ser Ser Leu Gly Glu Arg Ser Glu Glu Ala
1               5                   10                  15
Leu Gln Gln Glu Leu Arg Lys Ile Gln Asn Tyr Gln Ala Leu Asp Arg
            20                  25                  30
Leu Val Arg Asp Lys Val Gly Phe Asp Ser Pro Ala Arg Ile Phe Arg
        35                  40                  45
Leu Ser Ser Ser Ala Pro His His Arg Arg Gln Lys Thr Asp Glu Ala
    50                  55                  60
Cys Gln Ile Ala Gly His Asp Tyr Thr Pro Glu Thr Leu Gln Lys Ile
```

65 70 75 80
Ser Glu Leu Leu Ser Ser Asn Pro Glu Tyr Tyr Thr Val Trp Asn Tyr
85 90 95
Arg Arg Arg Val Leu Gln His Glu Phe Asn Leu Ala Ser Ser Asn Asp
100 105 110
Ser Glu Glu Ala Val Thr Gly Gln Ile Ala Ala Leu Ile Lys Lys Asp
115 120 125
Leu Gln Phe Leu Ile Pro Leu Leu Arg Lys Phe Pro Lys Cys Tyr Trp
130 135 140
Ile Trp Asn Tyr Arg Met Trp Leu Leu Asp Glu Ala Lys Arg Leu Leu
145 150 155 160
Pro Arg Ala Val Ala Arg Lys Phe Trp Gln Glu Glu Leu Ala Leu Val
165 170 175
Gly Lys Met Leu Ser Leu Asp Ser Arg Asn Phe His Gly Trp Gly Tyr
180 185 190
Arg Arg Phe Val Val Glu Ser Leu Glu Lys Leu Ala Pro Glu Asp Gln
195 200 205
Glu Val Arg Ser Met Ala Gln Asp Glu Phe Glu Tyr Ala Lys Lys Met
210 215 220
Ile Gly Thr Asn Leu Ser Asn Phe Ser Ala Trp His Tyr Arg Thr Lys
225 230 235 240
Leu Ile Gln Arg Leu Leu Ser Glu Gln Ser Ala Ser Asp Glu Thr Arg
245 250 255
Lys Lys Met Leu Asp Asp Gly Gln Phe Ser His Cys Ala Lys Arg Val
260 265 270
Ser Ala Ala Gly Thr Ile Leu Thr Gly Ile Ala Glu Leu Asp Leu Ile
275 280 285
His Arg Ala Leu Cys Asp Pro Tyr Asp Gln Ser Leu Trp Phe Tyr His
290 295 300
Gln Asn Leu Met Cys Thr Phe Asp Pro Ser Leu Ser Asp Gln Ser Met
305 310 315 320
Ala Pro Asn Leu Ser Asn Asp Glu Arg Leu Lys Tyr Leu Arg Lys Glu
325 330 335
Ile Gly Glu Ile Gln Glu Met Leu Asp Gly Ala Glu Asp Cys Lys Tyr
340 345 350
Ile Tyr Gln Ala Leu Ile Asp Cys Thr Leu Leu Ala Arg Lys Val Lys
355 360 365
Gly Thr Met Pro Ser Thr Asp Gln Glu Asn Ile Leu Ser Trp Leu Ser
370 375 380
Glu Leu Lys Lys Leu Asp Pro Leu Arg Cys Gly Arg Trp Leu Asp Phe
385 390 395 400
Glu Lys Ser Leu His Ala Asp Val
405

<210> 37805
<211> 184
<212> PRT
<213> A.fumigatus

<400> 37805
Gly Cys Gly Met Lys Asp Trp Phe Arg Arg Thr Thr Glu Gln Val Ser
1 5 10 15
Arg Gln Asp Gly Gln Ala Ser Val Ile Leu Leu Glu Val Leu Pro Val
20 25 30
Tyr Leu Lys Lys Lys Asn Met Ser Leu Leu His Leu Leu His Arg His
35 40 45

```
Lys Leu Phe Arg Leu Gln Pro Ile Pro Ile Cys Pro Pro Gly Thr Val
    50                  55                  60
Ser Gly Ile Ser Ala Ser Ala Thr Asp Ala Ser Ala Pro Val Asp Trp
65                  70                  75                  80
Glu Leu Trp Gln Lys Leu Val Asn Asp Gly Pro Gln Ala Leu Lys Gly
                85                  90                  95
Pro Asn Ser Glu Glu Ile Asn Pro Ala Ile Lys Arg Gly Ile Pro Gln
            100                 105                 110
Thr Ile Arg Gly Val Ile Trp Gln Ile Leu Ala Asp Ser Arg Asn Pro
        115                 120                 125
Glu Leu Glu Glu Val Tyr Lys Asp Leu Val Ala Arg Gly Thr Asp Lys
    130                 135                 140
Glu Lys Gln Val Thr Asn Gly Thr Gly Glu Gln Glu Ser Leu Asp Ser
145                 150                 155                 160
Ser Arg Ala Ser Val Arg Ser Glu Asn Ser Thr Ala His Ser Asn His
                165                 170                 175
Gly Ser Ser Gln Ser Pro Ser Gln
            180
```

<210> 37806
<211> 93
<212> PRT
<213> A.fumigatus

<400> 37806

```
Ile Asp Pro Glu Lys Leu Ala Lys Glu Gln Ala Ala Asn Glu Ile Ala
1               5                   10                  15
Arg Lys Lys Lys Ala Lys Glu Asp Ala Met Ala Leu Gln Lys Leu Glu
            20                  25                  30
Lys Ala Ile Arg Arg Asp Leu Gly Ala Arg Thr Ser Tyr Ser Arg Tyr
        35                  40                  45
Phe Val Ser Gln Gly Asn Gln Asp Gly Leu Phe Gly Leu Cys Lys Ala
    50                  55                  60
Tyr Ala Leu Tyr Asp Glu Ala Val Gly Tyr Ala Gln Gly Met Asn Phe
65                  70                  75                  80
Ile Val Met Pro Leu Leu Phe Asn Val Arg Thr Gln Pro
                85                  90
```

<210> 37807
<211> 196
<212> PRT
<213> A.fumigatus

<400> 37807

```
Met Asp Glu Ala Glu Ala Phe Thr Leu Leu Val Lys Leu Met Asn Lys
1               5                   10                  15
Tyr Gly Leu Arg Glu Met Phe Ile Asn Asp Met Pro Gly Leu His Arg
            20                  25                  30
Asn Leu Tyr Val Phe Glu Arg Leu Leu Glu Asp Trp Glu Pro Ala Leu
        35                  40                  45
Tyr Cys His Leu Arg Arg Arg Gly Val His Pro Gln Leu Tyr Ala Thr
    50                  55                  60
Gln Trp Phe Leu Thr Leu Phe Ala Tyr Arg Phe Pro Leu Gln Leu Val
65                  70                  75                  80
Leu Arg Ile Tyr Asp Leu Ile Phe Glu Glu Gly Leu Glu Ser Thr Ile
                85                  90                  95
```

```
Leu Lys Phe Ala Ile Ala Ile Met Arg Arg Asn Ala Glu Thr Leu Leu
            100                 105                 110
Thr Met Lys Asp Met Thr Pro Leu Thr Thr Phe Leu Lys Glu Arg Leu
        115                 120                 125
Phe Asp Val Tyr Ile Asp Lys Gln Pro Ser Pro Ser Ser Ile Leu Glu
    130                 135                 140
Ser Gly Phe Phe Gly Ser Ser Gly Ala Ala Asp Lys Glu Val Tyr Arg
145                 150                 155                 160
Ala Asp Ile Met Val Gln Asp Ala Cys Gly Ile Ser Leu Ala Pro Gly
                165                 170                 175
Thr Ile Ser Thr Tyr Thr Ala Glu Trp Glu Glu Lys Val Arg Thr Glu
            180                 185                 190
Arg Glu Arg Glu
        195
```

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<210> 37808
<211> 135
<212> PRT
<213> A.fumigatus

```
<400> 37808
Cys Val Arg Thr Thr Val Ser Asp Met Met Val Asn Leu Ile Arg Asn
1               5                   10                  15
Leu Glu Ile Thr Leu Gln Asn Met Lys Asp Ala Tyr Thr Ser Arg Glu
            20                  25                  30
Glu Val Pro Phe Trp Ala Thr Lys Leu Leu Thr Pro Ala Phe Met Ala
        35                  40                  45
Val Ala Ile Leu Thr Thr Ile Pro Pro Pro Gly Pro Thr Arg Val Ile
    50                  55                  60
Val Gly Met Thr Ala Phe Thr Ser Leu Trp Leu Tyr Val Leu Thr His
65                  70                  75                  80
Trp Met Ala Gly Pro Ala Phe Phe Met Asp Ala Ile Phe Met Ile Ser
                85                  90                  95
Ile Thr Val Arg Trp Met Leu Met Cys Leu Thr Gly Ala Pro Glu Ile
            100                 105                 110
Asp Tyr Tyr Gln Asn Ser Lys Thr Ala Thr Lys Leu Asp Thr Met Arg
        115                 120                 125
Leu Asp Thr Ser Glu Gln Gly
    130                 135
```

<210> 37809
<211> 377
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (373)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 37809
Ser Leu Leu Met Ile Lys Thr Tyr Arg Arg Gln Asn His Ser Gln Gly
1               5                   10                  15
Thr Ile Lys Cys Gln Leu Thr Ser Leu Leu Phe Asp Gly Ser Arg Gln
            20                  25                  30
Leu Val Pro Asp Met Leu Ser Asn Cys Val Pro Ser Ala Ala Pro His
```

```
        35                  40                  45
Ser Asp Asn His Arg Thr Ile Asp Asn Leu Val Asn Asn His Asn Gln
    50                  55                  60
Gln Arg Ser Ile Met Ser Ser Thr His Ser Ser Pro Ser Pro Leu Cys
65                  70                  75                  80
Thr Gln Ala Gly Ala Thr Ala Asn Trp Glu Arg Leu Arg Lys Ser Cys
                85                  90                  95
Asp Ser Cys Gln Glu Ala Lys Val Lys Cys Ser Gln His Lys Pro Ser
            100                 105                 110
Cys His Arg Cys Leu Arg His Arg Gln Pro Cys Ile Tyr Ser Pro Gln
        115                 120                 125
Arg Arg Thr Gly Arg Pro Arg Lys Arg Pro Thr Leu Asp Gly Thr Leu
    130                 135                 140
His Ser Ala Val Asn Leu Gly Ser Asp Glu Tyr Arg Ala Ile Ile Thr
145                 150                 155                 160
Glu Ala Thr Ser Ser Thr Val Asn Gly Gln Asp Leu Val Met Ala Asp
                165                 170                 175
Val Arg Gly Asp Asp Thr Pro Leu Leu Ala Gly Gly Ile Thr Ala Asp
            180                 185                 190
Asn Ile Asn Ser Ile Ser Ser Val Phe Glu Pro Ser Phe Glu Ala Leu
        195                 200                 205
Leu Ala Gly Ser Pro Leu Ser Lys Asp Pro Thr Thr Arg Asp Ser His
    210                 215                 220
Ser Asp Ser Cys His Thr Gly Tyr Pro Thr Ala Ser Pro Ser Asp Ala
225                 230                 235                 240
Trp Gly Asp Leu Ser Leu Phe Leu Pro Asp Tyr Asn Thr Ser Ser Leu
                245                 250                 255
Ser His Pro Glu His Val Val Ala Gly Ile Asp Gln Leu Pro Pro Leu
            260                 265                 270
Ser Val Asp Ala Ser Asn Thr Ser Ser Glu Asn Gly Asp Cys Gly Ala
        275                 280                 285
Lys Cys Tyr Thr Ala Leu Leu Gln Gln Leu Leu Phe Leu Arg Gln Ser
    290                 295                 300
Leu Pro Glu Ser Ser Arg Pro Ser Ile Asp Val Ile Leu Glu Val Glu
305                 310                 315                 320
Ser His Glu Arg Arg Leu Leu Asp Arg Val Leu Ser Cys Ala Thr Cys
                325                 330                 335
Leu Ser Asn Arg Ser Ser Val Leu Leu Met Ser Val Ile Thr Glu Arg
            340                 345                 350
Val Ile Gln Met Leu Asp Trp Ile Met Ala Glu Gln Thr Leu Phe Ser
        355                 360                 365
His Thr Thr Ser Xaa Arg Ser Arg Glu
    370                 375
```

<210> 37810
<211> 96
<212> PRT
<213> A.fumigatus

<400> 37810

```
Val Cys Val Pro Leu Cys Ile Val Gly Cys Ala Leu Thr Val Leu Ser
1               5                   10                  15
Leu Gly Ile Ala Trp Val Leu Pro His Glu Ala Arg Ser Thr Ile Ile
            20                  25                  30
Asp Ala Ile Ser Gly Thr Gly Ser Thr Phe Val Arg Asp Leu Asp Pro
        35                  40                  45
```

```
Thr Ile Lys Ser Ser Val Leu Ala Ala Ile Val Thr Ala Ile Asp Arg
    50                  55                  60
Thr Tyr Ile Leu Cys Ile Val Ala Gly Ala Val Thr Leu Leu Ala Thr
65                  70                  75                  80
Phe Gly Met Lys Trp Glu Arg Leu Phe Ile Ala Ala Thr Ala Ala Ala
                85                  90                  95
```

<210> 37811
<211> 551
<212> PRT
<213> A.fumigatus

<400> 37811

```
Ser Ser Thr Phe His Asp Ile Cys Gln Arg Ser Gln Arg Arg Asp Thr
1               5                  10                  15
Val Tyr Ile Val Ile Ile Ser Ser Tyr Lys Glu Thr Pro Phe Cys Asn
            20                  25                  30
Glu Leu Phe Gln Leu Val Asp His His Glu Thr Arg Ala Ser Ala Tyr
        35                  40                  45
Ser Pro Asp Cys Thr Phe Ser Ile Met Thr Asp Leu Thr Asn Thr Glu
    50                  55                  60
Met Arg Pro Ser Asp Ser Asp Ile Pro Lys Asp Pro Val Lys Gln Glu
65                  70                  75                  80
Ser Ser Tyr Ser Glu Ser Asp Gln Ser Lys Asp Thr Pro Arg Ser Pro
                85                  90                  95
Arg Asn Val His Gly Phe Leu Trp Val Thr Val Val Leu Ala Ile Tyr
            100                 105                 110
Ser Ser Thr Phe Leu Phe Ala Leu Asp Asn Thr Ile Val Ala Asn Ile
        115                 120                 125
Gln Pro Ala Ile Ile Lys Ser Leu Asn Gly Val Asp Lys Leu Ala Trp
    130                 135                 140
Ser Gly Val Ala Phe Val Met Ala Ser Ser Ala Thr Val Leu Thr Trp
145                 150                 155                 160
Leu Gln Ile Phe Asn Gln Phe Asn Ile Lys Trp Met Tyr Ile Phe Ser
                165                 170                 175
Ile Ala Val Phe Met Ala Gly Ser Ala Ile Cys Gly Ala Ala Gln Ser
            180                 185                 190
Met Asn Met Leu Ile Gly Gly Arg Val Val Cys Gly Val Gly Gly Val
        195                 200                 205
Gly Gln Tyr Val Gly Val Met Asn Phe Leu Pro Arg Leu Thr Ser Met
    210                 215                 220
Gln Glu Arg Pro Met Tyr Val Ser Ala Met Gly Leu Thr Trp Gly Ala
225                 230                 235                 240
Gly Thr Val Leu Gly Pro Ile Ile Gly Gly Ala Phe Thr Asp Ser Ser
                245                 250                 255
Ala Gly Trp Arg Trp Ser Phe Tyr Ile Asn Leu Cys Val Gly Gly Leu
            260                 265                 270
Phe Thr Pro Val Tyr Ile Phe Leu Leu Pro Ser Leu His Pro Gln Pro
        275                 280                 285
Val Lys Thr Ser Val Ile Glu Arg Leu Arg Arg Met Asp Leu Leu Gly
    290                 295                 300
Ser Leu Ile Leu Met Gly Ala Phe Ala Ala Gly Val Ile Gly Val Asn
305                 310                 315                 320
Phe Ala Gly Ala Met Tyr Pro Trp Asp Ala Pro Gly Ile Ile Val Ala
                325                 330                 335
Leu Val Leu Gly Gly Val Leu Phe Ile Ile Phe Gly Ile Gln Gln Thr
```

```
            340                 345                 350
Val Cys Ile Phe Thr Thr Asp Glu Thr Arg Leu Phe Pro Val Glu Leu
        355                 360                 365
Val Ser Trp Arg Lys Pro Leu Leu Thr Leu Leu Phe Ile Cys Gly Cys
    370                 375                 380
Cys Thr Gly Val Cys Val Thr Val Pro Thr Tyr Ile Ile Pro Leu Tyr
385                 390                 395                 400
Phe Gln Phe Thr Ala Ser Asp Glu Ser Leu Gln Ser Gly Val Arg Leu
                405                 410                 415
Leu Pro Phe Val Cys Leu Leu Val Phe Ser Cys Val Gly Gly Gly Phe
            420                 425                 430
Leu Thr Ser Arg Leu Gly Tyr Tyr Ile Pro Trp Tyr Ile Met Gly Gly
        435                 440                 445
Ala Leu Cys Leu Ile Gly Ser Ala Leu Met Tyr Thr Ile His Pro His
    450                 455                 460
Ser Ser Ala Gly Thr Ile Tyr Gly Tyr Ser Ala Leu Ile Gly Leu Gly
465                 470                 475                 480
Ala Gly Met Tyr Leu Gln Ile Gly His Ala Val Ala Gln Ala Lys Val
                485                 490                 495
Lys Pro Glu Lys Ile Pro Ala Ala Val Ala Phe Thr Thr Thr Ala Gln
            500                 505                 510
Leu Asn Gly Leu Thr Phe Ala Leu Val Ile Ser Gln Cys Val Phe Val
        515                 520                 525
Asn Glu Ala Ala Lys Arg Lys Phe Ala Phe Pro Phe Ala Leu Trp Ala
    530                 535                 540
Val His Leu Arg Phe Cys Leu
545                 550
```

<210> 37812
<211> 560
<212> PRT
<213> A.fumigatus

<400> 37812

```
Glu Arg Phe Phe Arg Val Glu Gly Asp Ile Leu Phe Met Glu Phe Leu
1               5                   10                  15
Tyr Pro Lys Ala Glu Asp Gly Asp Lys Ile Ile Leu Leu Leu Leu Val
            20                  25                  30
Ser Gln Asn Gln Val Thr Gln Ala Ile Cys Tyr Glu Trp His Ala Asp
        35                  40                  45
Glu Thr Ile Arg Gln Ala Ser Pro Arg Ile Thr Lys Arg Phe Leu Pro
    50                  55                  60
Pro Glu Asp Thr Leu Pro Thr Met Leu Ile Pro Leu Thr Lys Thr Ser
65                  70                  75                  80
Ser Phe Met Leu Ile Thr Thr Thr Ser Met Ala Val Tyr Lys Asn Arg
                85                  90                  95
Leu Asp Pro Arg Arg Gln Pro Ser Arg Tyr Pro Leu Pro Val Pro Asp
            100                 105                 110
Arg Glu Ala Lys Lys Ala Pro Leu Trp Thr Arg Trp Ala Arg Pro Leu
        115                 120                 125
Arg Asn Trp Ser Tyr Asn Gln Arg His Asp Asp Ile Tyr Leu Cys Arg
    130                 135                 140
Glu Asp Gly Arg Val Phe Tyr Leu Gly Ile Gly Asn Glu Gly Glu Leu
145                 150                 155                 160
Glu Asn Gln Ala His Leu Gly Gln Leu Cys Cys Asp Val Asp Ala Ala
                165                 170                 175
```

```
Phe Asp Ile Leu Asp Ile Gly His Glu Gly Gly Asp Leu Leu Leu Ala
            180                 185                 190
Ala Gly Thr Thr Gly Asp Gly Gly Leu Phe Val Gln Lys Ala Arg Asp
        195                 200                 205
Gln Pro Arg Cys Val Gln Lys Phe Ile Asn Trp Ser Pro Val Thr Asp
    210                 215                 220
Ser Val Ile Val Ser Ser Gly Gln Asp Ser Ser Ser Ser Asp Thr Ala
225                 230                 235                 240
Arg Asp Arg Leu Phe Val Cys Ser Ala Ser Ser Tyr Gly Arg Gly Ala
                245                 250                 255
Ile Phe Glu Leu Arg His Gly Leu Glu Ala Gln Ile Gly Leu Val Val
            260                 265                 270
Ser Leu Glu Asp Leu Ser Ser Thr Arg Asp Ile Trp Thr Met Ser Asp
        275                 280                 285
Asp Ile Asn Gly Gly Val Tyr Leu Leu Ile Ser Asp Pro Val Ser Ser
    290                 295                 300
Ile Leu Leu Tyr Leu Ser Ala Asp Phe Gly Glu Glu Met Cys Ala Ile
305                 310                 315                 320
Asp Glu Ala Asp Ser Gly Leu Asp Phe Ser Thr Gln Thr Leu Ala Ala
                325                 330                 335
Gly Cys Thr Ser Ser Gly Val Leu Val Gln Ile Thr Glu Lys Ala Ile
            340                 345                 350
Leu Leu Gly Thr Thr Thr Lys Ser Thr Met Arg Ala Arg Phe Glu Phe
        355                 360                 365
Gly Ser Asp Gln Ser Val Ala Val Ala Ala Val His Ser Ser Ala Ser
    370                 375                 380
Leu Ile Ala Ser Ala Val Arg Thr Arg His Glu Met His Leu Ser Leu
385                 390                 395                 400
Lys Ser Ile Asn Ile Gly Gln Asp Gln Leu His Leu Ser Glu Ile Gly
                405                 410                 415
Gln Pro Leu Arg Leu Pro His Glu Pro Val Ser Ile Leu Ile Glu Val
            420                 425                 430
Leu Gly Thr Phe Thr Leu Ile Phe Val Gly Thr Gly Asn Gly Lys Val
        435                 440                 445
Leu Ile Tyr Ser Phe Glu Asp Ser Thr Met Leu Leu Ser Glu Val Ser
    450                 455                 460
Ile Asp Val Glu Asn Gly Asp Asp Leu Ser Lys Ala Ile Glu Ser Leu
465                 470                 475                 480
Ala Val Val Ala Ile Asp Thr Asp Gly Pro Ser Gln Lys Tyr Thr Ile
                485                 490                 495
Leu Cys Gly Leu Arg Ser Gly Ile Phe Ala Pro Phe Glu Met Thr Leu
            500                 505                 510
Gly His Gly Asn Thr Lys Cys Ala Ile Gly Thr Leu Asn Leu Thr Leu
        515                 520                 525
Asn Leu Arg Ala Ser Leu Ile Gly Val Phe Ser Leu Cys Arg Gly Gln
    530                 535                 540
Thr Ser Glu Pro Thr Thr Asn Trp Glu Tyr Phe Cys Gln Asp Thr Lys
545                 550                 555                 560
```

<210> 37813
<211> 481
<212> PRT
<213> A.fumigatus

<400> 37813
Pro Ala Tyr His Pro Gly Asn Val His Ser Phe Ala Met Ala Lys Thr

```
1               5                   10                  15
Ile Asp Pro Asn Ile Asp Gly Glu Ala Asp Thr Leu Phe Cys Ile Ala
            20                  25                  30
Asp Gly Gln Leu Leu Ile Cys Thr Leu Asp His Ala Ala Lys Thr Val
        35                  40                  45
Pro Arg Arg Ile Asp Leu Pro Gly Ser Ala Ser Lys Leu Ala Tyr Ser
    50                  55                  60
Asn Tyr Leu Arg Ser Leu Ile Val Ala Tyr Thr Arg Ala Glu Leu Asp
65                  70                  75                  80
Thr Glu Ser Asp Pro Ile Arg Arg Leu Thr Arg Pro Phe Ile Glu Phe
                85                  90                  95
Val Glu Pro Asp Thr Gln His Gly Val Ser Lys Ala Val Asp Val Ser
            100                 105                 110
Glu Asp Gly Tyr Ser Ala Trp Arg Pro His Gly Ala Ala Gly Glu Lys
        115                 120                 125
Ile Ser Cys Ile Leu Glu Trp Thr Pro Lys Lys Gly Asp Glu Glu Tyr
    130                 135                 140
His Phe Ile Val Ile Gly Thr Ala Arg Lys Gln Gln Gln Glu Arg Gly
145                 150                 155                 160
Arg Val Ile Phe Leu Gln Ala Ser Arg Ser Ser Ser Asp Ser Ser Arg
                165                 170                 175
Ile Glu Cys Ser Val Lys Tyr Ile His Lys Phe Glu Ser Pro Val Tyr
            180                 185                 190
Ala Ile Ala Pro Tyr Gly Asp Phe Thr Leu Met Val Ser Thr Gly His
        195                 200                 205
Glu Ile Val Pro Leu Glu Pro Lys Leu Ser Gln Thr Arg Arg Val Arg
    210                 215                 220
Ala Ala Arg Tyr Pro Met Leu Ser Pro Ala Ile Ser Leu Ser Cys His
225                 230                 235                 240
Glu Pro Tyr Val Tyr Met Ser Thr Ser Arg Glu Ser Leu Met Val Leu
                245                 250                 255
Lys Ser Ser Glu Asp Lys Leu Leu Leu His Ala Tyr Asp Arg Gln Lys
            260                 265                 270
His Asp Gly Leu Ser His Ile His Ile Gly Gly Glu Phe Asn Leu Thr
        275                 280                 285
Val Thr Thr Ser Arg Gly Gly Arg Val Ser Ile Leu Ser Glu Asn Gly
    290                 295                 300
Ile Thr Asp Asn Asp Lys Met Met Pro Val Ala Leu Cys Glu Ala His
305                 310                 315                 320
Leu Pro Ser Ser Val Met Lys Leu Ser Ser Gly Ser Lys Pro Ser Pro
                325                 330                 335
Phe Ser Arg Ser Ser Gln Val Tyr Tyr Gly Thr Ala Met Asn Gly Ile
            340                 345                 350
Ala Tyr Arg Phe Leu Ile Leu Asp Glu Lys Glu Trp Arg Leu Leu Arg
        355                 360                 365
Leu Leu Gln Asn Leu Cys Ile Arg Asp Pro Ile Leu Cys Pro Phe Thr
    370                 375                 380
Pro Lys Arg Lys Arg Arg Arg Asn Pro Ala Thr Asn Gly Ile Ala Glu
385                 390                 395                 400
Pro Gln Pro Ser His Met His Ile Asp Gly Asp Ile Leu Ser Arg Leu
                405                 410                 415
Val Met Arg Gly Pro Lys Tyr Leu Thr Lys Met Leu Thr Thr Gln Gly
            420                 425                 430
Phe Glu Asp Ala Ala Phe Pro Glu Asn Gly Thr Ala Gln Ala Thr Leu
        435                 440                 445
Glu Leu Phe Thr Glu Leu Ser Asn Asn Leu Leu Gly Glu Ser Pro Asp
```

```
    450                 455                 460
Gln Val Glu Lys Val Met Arg Trp Leu Glu Lys Ala Val His Val Glu
465                 470                 475                 480
Phe
```

<210> 37814
<211> 176
<212> PRT
<213> A.fumigatus

<400> 37814

```
Lys Met Ala Pro Lys Lys Lys Gly Asn Arg Lys Gln Asp Asp Asp Trp
1               5                  10                  15
Glu Ala Glu Leu Gly Glu Ser Ile Ala Pro Val Ser Glu Gln Pro Lys
            20                  25                  30
Asp Ala Thr Pro Ala Asp Ala Ala Pro Glu Glu Asp Asp Met Gly Gly
        35                  40                  45
Gly Leu Leu Ala Ala Leu Arg Lys Asn Lys Asn Lys Lys Ala Lys Lys
    50                  55                  60
Gly Lys Pro Val Asn Asp Phe Val Glu Gly Glu Asp Ala Thr Glu Gln
65                  70                  75                  80
Ala Asn Gly Asp Val Asp Phe Ser Ser Lys Gln Pro Glu Glu Gly Thr
                85                  90                  95
Val Asp Gln Glu Asp Val Phe Ala Gly Lys Lys Lys Gln Lys Pro Ala
            100                 105                 110
Lys Ala Thr Pro Pro Ala Pro Ala Ser Val Glu Gly Asp Gly Glu Ile
        115                 120                 125
Arg Val Lys Thr Lys Lys Glu Lys Glu Arg Glu Lys Lys Glu Arg Glu
    130                 135                 140
Lys Gln Arg Lys Arg Glu Gln Val Cys Val Val Ser Gly Ala Leu Phe
145                 150                 155                 160
Ala Pro Thr Asn Arg Val Ser Pro Val Ala Asp Leu Glu Tyr Leu Phe
                165                 170                 175
```

<210> 37815
<211> 66
<212> PRT
<213> A.fumigatus

<400> 37815

```
Ala Leu Lys Lys Lys Ala Thr Ala Pro Glu Pro Lys Ala Glu Pro Ala
1               5                  10                  15
Lys Ala Glu Lys Lys Glu Gln Ala Ala Pro Ala Ala Ala Ala Ala Pro
            20                  25                  30
Thr Pro Pro Ala Cys Ala Pro Glu Ala Pro Gly Lys Lys Lys Lys Leu
        35                  40                  45
Pro Ala His Leu Ala Ala Ile Pro Lys Ala Pro Glu Ala Leu Pro Asp
    50                  55                  60
Thr Thr
65
```

<210> 37816
<211> 748
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (705),(711)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37816
Phe Arg Trp Leu Tyr Asp Gln Pro Gly Ser Glu Gln Gly Leu Cys Lys
1 5 10 15
Val His Phe Ser Thr Ala Ile Met Ser Thr Leu Ser Pro Gln Leu Val
20 25 30
Arg Ser Glu Ser Pro Thr Asp Met Gly Phe Pro Asn Ala Asn Phe Ser
35 40 45
Asp Pro Tyr Leu Ser Ala Pro Leu Asp Pro Glu Gln Asp Val Phe Lys
50 55 60
Ser Ser Gly Ile Arg Trp Thr Pro Glu Pro Gly Gln His Asp Leu Arg
65 70 75 80
Glu Ala Ser Thr Ser Pro Tyr Asn His Asn Val Asn Ser Asp Thr Ala
85 90 95
Gln Gly Ala Glu Thr Ala Gly Tyr Pro Thr Ser Tyr Ser Asp Phe Leu
100 105 110
Ser Pro Ile Asp Asp Phe Ser Ser Asp Leu Ser Ala Gln Ala Ser Pro
115 120 125
Asn Gly Asp Gln Pro Pro Gly Ser Ile Asn Met Glu Leu His Ser Tyr
130 135 140
Leu Asp Ala Trp Pro His Glu Gly Ser Ser Ser Asn Met Ala Val Ala
145 150 155 160
Asp Glu Pro Arg Ser Val Asp Ser Glu Ser Ala Ala Leu Ser Gln Pro
165 170 175
Ala Leu Val Thr Ser Gln Leu Leu Thr Pro Glu Arg Thr Asn His Pro
180 185 190
Ser Pro Ala Pro Asp Leu Thr Asn Arg Arg Asn Asn Glu Ser Gln Ser
195 200 205
His Ser Glu Gln Ile Leu Thr Ile Val Thr Ala Pro Leu Asp Asn Asn
210 215 220
Leu Asn Val His Pro Pro Ser Asp Ala Ala Arg Ala Arg Ser Pro Ile
225 230 235 240
Val Thr Val Glu Ser Tyr Ser Arg Gly Asp Ser Pro Val Arg Asn Thr
245 250 255
Ile Ser Val Arg Arg Gln Pro Ser Gln Ser Thr Thr His Leu Ser Pro
260 265 270
Gly Arg Glu Ser Glu Asp Gly Asp His Asn Thr Ser Trp Gln Thr Ser
275 280 285
Glu Gln Ala Ile Ala Arg Ala Pro Asp Gly Ser Trp Leu Pro Asp Gly
290 295 300
Thr Thr Gly Gln Ala Gly Val Ala Pro Thr Ser Arg Asp Asp Thr Tyr
305 310 315 320
Ile Leu Ser Pro Asn Glu Val Glu Ser Arg Arg Arg Leu Glu Glu Lys
325 330 335
Asn Ala Asp Ile Arg Ser Trp Ser Ala Thr Val Ser Val Ala Gly Ser
340 345 350
Glu Asp Gly Asp Asp Gly Leu His Thr Arg Gly Arg Lys Val Pro Ala
355 360 365
Gly Thr Arg Arg Arg Ala Arg Ser Ala Gly Asp Pro Ala Leu Gln Gln
370 375 380
Asp Tyr Phe Asn Leu Gln Phe Gly Ala Tyr Gly Pro Val Leu Pro Gly

385 390 395 400
Pro Gly Ala Leu Ile His Glu Ser Ser Asp Glu Glu Leu Ser Val Asn
405 410 415
Asp Ser Glu Val Glu Ala Ser Asp Pro Gly Ser Pro Ala Val Ser Val
420 425 430
Asn Glu Ala Arg Trp Ala Arg Asp Gly Phe Ala Asp Ser Pro Val Gln
435 440 445
Asp Gln Pro Asn Ser Ala Asp Glu Glu Pro Ala Pro His Gln Phe Leu
450 455 460
Ala Thr His Pro Trp Lys Asp Ala Asp His Asp Ser Thr Pro Arg Ser
465 470 475 480
Val Arg Met Gln Pro Ser Thr Ala Ser Ala Ala Met Met Glu Tyr Gln
485 490 495
Arg Arg Ala Arg Glu Ile Asp Ala Val Ser Arg Tyr Ala Thr Trp Gly
500 505 510
Thr Arg Pro Met Ser Glu Ile Glu Val Asn Ser Ile Ile Gly Ala Gly
515 520 525
Gly Ser Phe Ala Asn Leu Ser Ile Ser Gln Asp Ser Ser Lys Lys His
530 535 540
Thr Arg Arg Ser Ser Leu Met Lys Phe Phe Pro Arg Lys Pro Ser Ile
545 550 555 560
Ser Val Leu Lys Arg Pro Leu Ser Asp Leu Ser Leu Val Glu Asn Gln
565 570 575
Thr Thr Asn Asn Glu Ile Lys Ser Pro Pro Ser Arg Asn Asp Ser Phe
580 585 590
Pro His Arg Lys Leu Ser Leu Ala Arg Ser Pro Lys Ser Pro Ser Leu
595 600 605
Ser Thr Gly Gly Ala Val Ile Ala Ile Ala Gly Gln Met Ala Ala Ile
610 615 620
Gly Gly Arg Asp Ser Leu Ser Thr Val Ser Pro His Ser Thr Ser Asn
625 630 635 640
Pro Trp Asn Lys Phe Gly Arg Thr Arg Ser Arg Ser Glu Ile Pro Arg
645 650 655
Ser Ser Ala Pro Gly Leu Leu Asp Leu Met Thr Ser His Gly Gly Pro
660 665 670
Pro Val Pro Thr Ile Gly His Ser Gln Thr Leu Thr Thr Asp Asn His
675 680 685
Gly Leu Gln Gln Val Ala Ser Ser Arg Thr Val Glu Thr Gly Asp Asp
690 695 700
Xaa Glu Glu Asp Asp Asp Xaa Ala Asp Gln Gly Gln Val Met Asp Phe
705 710 715 720
Pro Val Pro Asn His Leu Pro Val Ala Thr Thr Glu Arg Phe Lys Ala
725 730 735
Gln Ile Pro Gln Leu Asn Pro Arg Leu Glu Leu His
740 745

<210> 37817
<211> 92
<212> PRT
<213> A.fumigatus

<400> 37817
Gly Leu Gly Val Trp Thr Arg Phe Ile His Leu Gly Val Lys Ala Ser
1 5 10 15
Tyr Ala Ile Gly Val Ala Glu Pro Leu Ser Ile Phe Val Glu Thr Tyr
20 25 30

```
Gly Thr Ser Glu Lys Ser Ser Asp Glu Leu Val Glu Ile Ile Arg Lys
        35                  40                  45
Asn Phe Asp Leu Arg Pro Gly Val Ile Val Lys Glu Leu Asp Leu Ala
    50                  55                  60
Lys Pro Ile Tyr Phe Gln Thr Ala Lys Asn Gly His Phe Thr Asn Gln
65                  70                  75                  80
Ser Phe Pro Trp Glu Lys Pro Lys Thr Leu Lys Phe
                85                  90
```

<210> 37818
<211> 462
<212> PRT
<213> A.fumigatus

<400> 37818

```
Phe Ser Gln Thr Ser Val Ala Tyr Phe Ala Lys Gly Pro Leu Ala Arg
1               5                   10                  15
Cys Arg Ala Ala Phe Gln Thr Ser Gly Ser Tyr Ser Thr Asn Thr Pro
            20                  25                  30
Lys His Leu Ala Glu Phe Tyr Arg Glu Ala Ile Leu Ala Ala Lys Lys
        35                  40                  45
Met Asp Leu Lys Tyr Arg Glu Thr Leu Pro Ser Thr Ile Arg Asp Val
    50                  55                  60
Leu Leu Ser Thr Ser Asp Asp Asp Ala Arg Lys Lys Arg Lys Ser Arg
65                  70                  75                  80
Lys Arg Lys Leu Gly Lys Asn Gly Leu Tyr Pro Glu Glu Glu Gly Phe
                85                  90                  95
Ile Arg Lys Trp Trp Arg Asp Arg Ala Leu Ala Asp Asn Gly Val Pro
            100                 105                 110
Ala Glu Ser Ser Arg Asp Ala Glu Leu Lys Lys His Ile Ala Asp Leu
        115                 120                 125
Arg Leu Arg Glu Thr Gln Leu Gln Ile Leu Leu Ile Leu Glu Thr Leu
    130                 135                 140
Ala Leu Glu Met Asn Gly Pro Gly Glu Thr Ser Lys Thr Asp Glu Ser
145                 150                 155                 160
Ser Glu Gln Pro Ser Asp Asp Thr Arg Thr Lys Ser Lys Lys Lys Pro
                165                 170                 175
Gln Asp Leu Asp Val Leu Leu Glu Leu His Leu Asp Arg Leu Cys Ile
            180                 185                 190
Trp His Ala Val Ser Thr Asp Asp Thr Ala Leu Ala Glu Ser Ala Lys
        195                 200                 205
Ser Phe Asp Ser Gln Thr Gly Lys Lys Ile Glu Ser Asp Ala Val Arg
    210                 215                 220
Asp Phe Cys Thr Glu Val Ile Val Pro Phe Tyr Ala Ser Arg Leu Pro
225                 230                 235                 240
Asp Arg Cys Lys Leu Ile Thr Arg Lys Leu Gly Val Ser Gly Ala Ile
                245                 250                 255
Ser Pro Leu Ala Lys Gln Ser Ser Gly Thr Lys Lys Ala Ser Arg Thr
            260                 265                 270
Glu Pro Gly Lys Pro Thr Glu Arg Gln Ser Ser Gln Arg His Pro Arg
        275                 280                 285
Arg Ser Leu Gln Arg Val Leu Thr Asp Gln Gln Thr Ala Ser Gln Ala
    290                 295                 300
Arg Pro Arg Ser Leu Gly Arg Ser Asn Thr Val Pro Ser Gln Ala Gly
305                 310                 315                 320
Ala Lys Arg Glu Ser Met Glu Pro Leu Leu Pro Val Leu Ser Val Ser
```

```
                325                 330                 335
Ala Arg Gly Gly Ile Gln Lys Pro Lys Arg Val Glu Asn Arg Glu Val
            340                 345                 350
Asp Leu Asn Ala Val Ala Arg Gln His Glu Ala Lys Leu Arg Lys Val
        355                 360                 365
Gln Met Leu Met Glu Gln Lys Lys Glu Leu Asp Ala Ala Ile Asn Ala
    370                 375                 380
Leu Arg Lys Pro Asn Arg Glu Leu Val Ala Lys Asp Ile Val Glu Asp
385                 390                 395                 400
Ala Val Lys Arg Ala Ser Gly Gly Ser Ser Arg Lys Pro Lys Asn Pro
                405                 410                 415
Val Arg Asn Pro Phe Gly Ala Ser Val Gln Val Met Ala Thr Arg Lys
            420                 425                 430
Glu Thr Ala Arg Arg Thr Arg Leu Gly Leu Gly Ser Pro Ile Gln Lys
        435                 440                 445
Tyr Cys Ala Val Leu Pro Asn Leu Glu Arg Phe Ser Pro Phe
    450                 455                 460

<210> 37819
<211> 209
<212> PRT
<213> A.fumigatus

<400> 37819
Ser Val Phe Val Asp Phe Arg Gly Ile Phe Gly Thr Ala Asn Gly Tyr
1               5                   10                  15
Ala Leu Ala Leu Thr Ala Ser His Ala Ile Ile Trp Pro Tyr Ser Pro
            20                  25                  30
Ser Ala Ser Ala Ser Ser Pro Val Asp Val Phe Thr Leu Thr Ile Pro
        35                  40                  45
Glu Ser Cys Arg Glu Ser His Gly Ala Pro Pro Leu Gly Thr Phe Leu
    50                  55                  60
Ser Ser Ala Asn Gly Glu Ile Pro Gly Leu Met Val Val Met Pro Tyr
65                  70                  75                  80
Thr Gly Arg Ile Ile Tyr Trp Glu Thr Ile Ser His Ala Gly Ser Leu
                85                  90                  95
Gly Leu Pro Arg Gln Lys Gln Ser Gly Leu Gln Gly His Val Pro Gly
            100                 105                 110
Leu Leu Pro Ser Glu Tyr Val Thr Asp Val Ile Asn Cys Glu Pro Ser
        115                 120                 125
Gly Val Ile Val Thr Phe Ser Ser Gly Arg Val Ala His Ile Thr Phe
    130                 135                 140
Arg Asp Ser Gln Gly Arg Pro Thr Val Met Ala Asn Phe Leu Arg Asn
145                 150                 155                 160
Ser Ser Ser Ser Ser Gly Leu Leu Asn Gly Ile Lys Ser Val Phe Ser
                165                 170                 175
Gly Gly Cys Trp Lys Lys Asp Val Ser Ala Val Lys Gly Cys Pro Phe
            180                 185                 190
Ala Ser Thr Arg Ala Ala Gly His His Cys Trp His Asn Asp Arg Ser
        195                 200                 205
Val


<210> 37820
<211> 60
<212> PRT
```

<213> A.fumigatus

<220>
<221> UNSURE
<222> (3),(4),(13),(40)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37820
Ala Gly Xaa Xaa Ile Ser Leu Ala Ala Asp Tyr Leu Xaa Gln Ile Thr
1 5 10 15
Thr Phe Ser Lys Glu Tyr Gly Thr Val Thr Ala Cys Gly Lys Cys Gly
20 25 30
Ile Lys Ala Ile Lys Ala Pro Xaa Tyr Ile Leu Asp Gly Asn Phe Ala
35 40 45
Cys Lys Leu Arg Arg Leu Ile Ser Lys Phe Arg Thr
50 55 60

<210> 37821
<211> 84
<212> PRT
<213> A.fumigatus

<400> 37821
Asp Val Asn Phe Ser Val Leu Gln Arg His Gln Asn Ile Leu Gln Leu
1 5 10 15
Ser Gly Ile Thr Lys Ser Pro Asn Ala Thr Ser Phe Gly Val Asp Phe
20 25 30
Ala Asn Phe Leu Ala Asp Gln Ile Ser Ala Asp Leu Ala Trp Pro Tyr
35 40 45
Ala Asn Pro Ser Phe Asp Ser Ser Ile Leu Val Lys Ile Ala Asn Thr
50 55 60
Val Pro Pro Phe Asn Gly Phe Asn Thr Leu Ser Arg Gln Lys Val Phe
65 70 75 80
Gln Ile Val Pro

<210> 37822
<211> 418
<212> PRT
<213> A.fumigatus

<400> 37822
Ser Leu Asn His Val Ala Ile Pro Gln Ser Glu Ile His His Cys His
1 5 10 15
Pro Leu Cys Leu Trp Ser Leu Asn Leu Lys Ala Glu Pro Pro Ser Pro
20 25 30
Lys Tyr Leu Ser Ala Leu His His Asn Lys Ile Ala His Ser Ser Ile
35 40 45
Leu Ser Arg Phe Val Ile Pro Ser Thr Pro Glu Ile Arg Ile Pro Asp
50 55 60
Thr Asp Ile Gly Pro Gly His Gly Val Gln Arg Val Gly Met Ala Asn
65 70 75 80
Ser Trp Val Asp Asn Phe Pro Gly Thr Ala Arg Pro Phe Leu Asp Glu
85 90 95
Met Asp Asp Thr Leu Gly Phe Asn Leu Ser Arg Thr Ile Ala Asn Gly
100 105 110

```
Pro Asn Cys Glu Leu Asn Lys Thr Glu Asn Ser Gln Pro Ala Ile Met
        115                 120                 125
Ala Thr Ser Ile Leu Ile Leu Arg Ile Leu Glu Lys Glu Phe Gly Phe
    130                 135                 140
Asp Thr Lys Ser Arg Val Asn Val Thr Leu Gly His Ser Leu Gly Glu
145                 150                 155                 160
Phe Ser Ala Leu Val Ala Gly Gly Tyr Leu Lys Phe Arg Asp Ala Leu
                165                 170                 175
Arg Leu Val Arg Arg Arg Ala Glu Ile Met Ala Glu Cys Thr Arg Gln
            180                 185                 190
Ala Ser Lys Gln Ser Gly Glu Asp Tyr Gly Met Val Ala Leu Ile Cys
        195                 200                 205
Glu Pro Ala His Leu Glu Ser Leu Leu Ser Ala Ile His Glu Phe Thr
    210                 215                 220
Gly His Pro Ser Pro Asp Leu Lys Asp Asp Ser Ser His Gly Leu Pro
225                 230                 235                 240
Thr Ile Gln Gln Val Met Ile Ala Asn Ile Asn Ser Lys Asn Gln Ile
                245                 250                 255
Val Leu Ser Gly Ser Ile His Arg Ile Thr Thr Leu Leu Ile Gln Leu
            260                 265                 270
Arg Gln Phe Gly Gly His Asp Pro Arg Ala Val Arg Leu Lys Ser Glu
        275                 280                 285
Ser Pro Phe His Asn Pro Ile Met Ala Pro Ala Ala Gly Tyr Met Arg
    290                 295                 300
His Glu Leu Glu His Ile Asp Ile Glu Phe Pro Ser Gln Leu Pro Cys
305                 310                 315                 320
Ile Ser Asn Val Ser Gly Leu Pro Phe Glu Ser Arg Asp Asp Leu Lys
                325                 330                 335
Asn Leu Leu Ser Arg Gln Cys Val Glu Thr Val Lys Trp Trp Asp Ser
            340                 345                 350
Ile Arg Tyr Leu Asp Gln Asp Arg Gly Val Lys Arg Trp Ile Gly Ile
        355                 360                 365
Gly Pro Gly Lys Val Gly Arg Asn Leu Val Gly Lys Glu Val Gly Lys
    370                 375                 380
Ile Asn Thr Lys Gly Gly Gly Val Trp Ala Leu Ser Asp Pro Arg Glu
385                 390                 395                 400
Leu Glu Asn Val Leu Met Ala Leu Gln Asn Thr Glu Ile Asp Val Leu
                405                 410                 415
Thr Gln
```

<210> 37823
<211> 743
<212> PRT
<213> A.fumigatus

<400> 37823

```
Glu Leu Leu Leu Leu Leu Asp Asp Thr Leu Ile Ala Lys Gly Ile Arg
1               5                   10                  15
Asn Phe Gly Gly Thr Phe Leu Val Phe Gln Thr Arg Thr Arg Ser Leu
            20                  25                  30
Thr Leu Asn Pro Val Val Ala Gly Arg Ser His Leu Ala Ile His Asp
        35                  40                  45
Ser Pro Asp Phe Leu Gly Gln Val Leu Gly Glu Leu Thr Gly Val Gly
    50                  55                  60
Asn Asp Asn Asp Thr Thr Leu Glu Ser Leu Glu Ser Leu Gly Gln Gly
```

```
65                  70                  75                  80
Thr Gln Arg Val Thr Val Glu Ile Val Gly Gly Leu Val Glu Asp Asp
                85                  90                  95
Asp Val Arg Thr Leu Pro Arg Ala Gly Gly Glu Asp Asp Leu Asp Thr
            100                 105                 110
Leu Thr Thr Gly Gln Thr Ala His Thr Arg Val Arg Asn Glu Phe Gly
        115                 120                 125
Ile Glu Thr Glu Val Gly Thr Val Gly Leu Asn Leu Leu Ala Asp His
    130                 135                 140
Gly Thr Glu Leu Thr Ala Gly Glu Gly Phe Leu Leu Val Asn Leu Gly
145                 150                 155                 160
Tyr His Leu Gly Val Gly Leu Asp Asn Leu Ala Thr Thr Asn Pro Gly
                165                 170                 175
Val Val Ile Ala His Gln Arg Gly Pro Leu Leu Thr Leu His Ala Asp
            180                 185                 190
Val Leu Thr Lys Ser Lys Arg Ala Leu Leu Leu Val Ala Val Leu Glu
        195                 200                 205
Leu Thr Thr Ser Val Asp Thr Asp Asn Thr Thr Gln Gly Ala Val Asp
    210                 215                 220
Leu Val Asp Leu Val His Gly Leu Leu Ile Ile Leu Gly Asp Asp Leu
225                 230                 235                 240
Val Gly Ala Val His Gly Leu Thr Val Leu Thr Gly Leu Glu Thr Pro
                245                 250                 255
Leu Asn Val Leu Arg Gly Ser Leu Val Glu Val Val Ile Asp Val Ser
            260                 265                 270
Glu Ser Met Leu Leu Asp Val Gly Asp Thr Asp Val Leu Val Leu Val
        275                 280                 285
Asp Leu Thr Ala Gly Gly Asp Glu Leu Thr Ser Gln Asp Ile Asp Glu
    290                 295                 300
Ser Gly Phe Thr Gly Thr Val Gly Thr Asp Asp Ser Asn Thr Arg Ser
305                 310                 315                 320
Gln Arg Asn Leu Glu Gly Asp Val Cys Glu Leu Gly Leu Gly Ser Ala
                325                 330                 335
Gly Val Leu Glu Gly His Val Ala Asp Thr Asp Asp Gly Leu Gly Leu
            340                 345                 350
Gly Leu Asp Thr Leu Lys Glu Thr Arg Leu Gly Glu Leu Glu Leu His
        355                 360                 365
Val Gly Gly Ala Glu Leu Val Val Gly Thr Ser Thr Gly Asp Leu Leu
    370                 375                 380
Asp Glu Leu Ala Gln Ile Ala Ala Ile Thr Leu Glu Leu Lys Ala Leu
385                 390                 395                 400
Val Val Asp Asn Val Leu Asp Asn Ile Val Gln Glu Leu Ala Val Val
                405                 410                 415
Gly Asp Asp Asp Gly Gly Ala Arg Gly Val Ala Lys Val Val Leu Gln
            420                 425                 430
Pro Gly Asn Ile Leu Asp Val Gln Val Val Gly Arg Leu Ile Lys Glu
        435                 440                 445
Gln Asn Val Gly Val Leu Glu His Gly Thr Gly Gln Ser Gln Leu His
    450                 455                 460
Leu Pro Thr Thr Arg Gln Arg Gly Asp Gly Val Phe Glu Leu Leu Thr
465                 470                 475                 480
Gln Glu Thr Glu Leu Leu Glu Leu Arg Leu Asp Ile Gly Leu Arg Asp
                485                 490                 495
Val Asp Thr Asp Ile Thr Glu Leu Leu His Gly Pro Ala Asn Asp Gly
            500                 505                 510
Leu Leu Ser Val Gly Gly Ile Gln Val Val Leu Asn Val Asp Ser Leu
```

```
        515                 520                 525
Asp Leu Val Leu Leu Arg Glu Thr Phe Lys Leu Leu Val Val Asp Gly
    530                 535                 540
Thr His Gln Ser Ser Leu Thr Gly Thr Val Arg Ser Glu Lys Thr Val
545                 550                 555                 560
Thr Leu Thr Thr Leu Gln Ala Glu Gly Gly Leu Val Gln Gln Asp Leu
                565                 570                 575
Gly Thr Ile Arg Lys Arg Glu Gly Ala Val Ala Glu Ile Phe Thr Leu
            580                 585                 590
Leu Leu Val Arg Lys Asn Gly Ile Leu Leu Gly Ser Ala Arg Arg Gly
        595                 600                 605
Thr Leu Ala Gln Ser Leu Gly Asn Gly Phe Gly Phe Leu Leu Thr Asn
    610                 615                 620
Asp Gly Gly Asp Val Gly Lys Ser Val Leu Gly Pro Ala Gly Asp Leu
625                 630                 635                 640
Gly Val Leu Leu Val Asn Glu Leu Thr Ser Asp Gly Thr Asp Ile Val
                645                 650                 655
Asp Asp Gly Leu Arg Leu Leu Asn Leu Ser Phe Val Leu Gly Gly Glu
            660                 665                 670
Asp Ile Leu Gln Asp Ser Ser Asn Gly Leu Asn Val Ser Gly Gln Leu
        675                 680                 685
Ile Phe Arg Gly Ser Trp Pro Ser Leu Thr Ser Pro Thr Pro Asn Glu
    690                 695                 700
Gly Val Gln Arg Pro Ala Trp Val Phe Ser Thr Gly Pro Leu Gly Ser
705                 710                 715                 720
Gly Gln Gly Pro Leu Ser Ser Phe Ser Gln Lys Gly Gly Ile Thr Leu
                725                 730                 735
Gly Pro Leu Arg Gly Ala Thr
            740
```

<210> 37824
<211> 494
<212> PRT
<213> A.fumigatus

<400> 37824

```
Gly Gly Pro Arg Ser Pro Lys Tyr Gln Leu Pro Gly Asn Val Glu Thr
1               5                   10                  15
Val Ala Ala Ile Leu Lys Asp Ile Leu Ser Pro Lys Tyr Lys Ala Gln
            20                  25                  30
Ile Glu Lys Ser Glu Ala Ile Ile Asn Tyr Val Gly Ala Ile Ala Gly
        35                  40                  45
Gln Leu Val Asp Glu Lys Asp Ala Glu Val Thr Ser Trp Thr Gln Asn
    50                  55                  60
Ala Leu Pro Tyr Ile Thr Ala Ile Ile Gly Glu Glu Glu Ala Lys Ala
65                  70                  75                  80
Ile Ala Glu Thr Leu Arg Lys Arg Ala Ser Pro Gly Ala Ala Glu Glu
                85                  90                  95
Asp Ala Val Leu Ser Asp Glu Glu Glu Gly Glu Asp Leu Cys Asn Cys
            100                 105                 110
Thr Phe Ser Leu Ala Tyr Gly Ala Lys Ile Leu Leu Asn Gln Thr Ser
        115                 120                 125
Leu Arg Leu Lys Arg Gly Gln Arg Tyr Gly Leu Leu Gly Pro Asn Gly
    130                 135                 140
Thr Gly Lys Thr Thr Leu Met Arg Ala Ile Asn Asn Glu Gln Leu Glu
145                 150                 155                 160
```

```
Gly Phe Pro Lys Lys Asp Glu Val Lys Thr Val Tyr Val Glu His Asp
                165                 170                 175
Leu Asp Ala Ala Asp Thr Glu Gln Thr Val Ile Gly Trp Thr Met Lys
            180                 185                 190
Lys Leu Arg Asp Val Gly Ile Asp Ile Pro Gln Ser Asp Val Glu Ala
        195                 200                 205
Lys Leu Glu Glu Phe Gly Phe Leu Arg Glu Gln Phe Glu Asn Pro Ile
    210                 215                 220
Thr Ser Leu Ser Gly Gly Trp Lys Met Lys Leu Ala Leu Ala Arg Ala
225                 230                 235                 240
Val Phe Glu Asn Pro Asp Ile Leu Leu Leu Asp Glu Pro Thr Asn His
                245                 250                 255
Leu Asp Val Lys Asn Val Ala Trp Leu Glu Asn Tyr Leu Cys Asn Ser
            260                 265                 270
Pro Cys Thr Ser Ile Ile Val Ser His Asp Ser Lys Phe Leu Asp Asn
        275                 280                 285
Val Ile Gln His Val Val His Tyr Glu Arg Phe Lys Leu Lys Arg Tyr
    290                 295                 300
Arg Gly Asn Leu Ser Glu Phe Val Lys Lys Val Pro Ser Ala Arg Ser
305                 310                 315                 320
Tyr Tyr Glu Leu Ser Ala Ser Asp Met Glu Phe Lys Phe Pro Glu Pro
                325                 330                 335
Gly Phe Leu Glu Gly Val Lys Thr Lys Ala Lys Ala Ile Ile Arg Val
            340                 345                 350
Ser Asn Met Ser Phe Gln Tyr Pro Gly Thr Pro Lys Pro Gln Leu Thr
        355                 360                 365
Asp Ile Thr Phe Gln Val Ser Leu Gly Ser Arg Ile Ala Val Ile Gly
    370                 375                 380
Pro Asn Gly Ala Gly Lys Ser Thr Leu Val Asn Val Leu Thr Gly Glu
385                 390                 395                 400
Leu Ile Pro Thr Ser Gly Glu Val Tyr Gln His Glu Asn Ile Arg Ile
                405                 410                 415
Ala Tyr Ile Lys Gln His Ala Phe Ala His Ile Asp Asn His Leu Asp
            420                 425                 430
Lys Thr Pro Ser Glu Tyr Ile Gln Trp Arg Phe Gln Thr Gly Glu Asp
        435                 440                 445
Arg Glu Thr Met Asp Arg Ala Asn Lys Ile Val Thr Glu Asp Asp Glu
    450                 455                 460
Lys Ala Met Asp Lys Ile Tyr Lys Ile Asp Gly Thr Leu Arg Arg Val
465                 470                 475                 480
Ile Gly Ile His Ala Arg Arg Lys Phe Lys Asn Ser Tyr Glu
                485                 490
```

<210> 37825
<211> 217
<212> PRT
<213> A.fumigatus

<400> 37825

```
Glu Cys Ser Phe Ala Leu Gly Glu Asn Val Gly Met Lys Ser Glu Lys
1               5                   10                  15
Trp Thr Pro Leu Met Ser Asn Asp Asn Ala Trp Ile Arg Arg Ser Glu
            20                  25                  30
Ile Ile Gln Ser His Ala Lys Met Val Ala Glu Val Asp Gln Lys Glu
        35                  40                  45
Ala Phe Ala Ser Gly Gln Phe Arg Pro Met Val Arg Lys Glu Ile Glu
```

```
    50                  55                  60
Ala His Cys Ala Asn Phe Gly Leu Asp Ala Glu Leu Val Ser His Ser
65                  70                  75                  80
Arg Met Arg Gly Leu Ser Gly Gly Gln Arg Val Lys Val Val Leu Ala
                85                  90                  95
Ala Cys Ser Trp Gln Arg Pro His Val Ile Val Leu Asp Glu Pro Thr
            100                 105                 110
Asn Tyr Leu Asp Arg Asp Ser Leu Gly Ala Leu Ser Lys Ala Leu Lys
        115                 120                 125
Thr Phe Glu Gly Gly Val Val Ile Ile Thr His Ser Arg Glu Phe Thr
    130                 135                 140
Glu Asn Leu Thr Glu Glu Val Trp Ala Val Met Asp Gly Lys Met Thr
145                 150                 155                 160
Pro Ser Gly His Asn Trp Val Gln Gly Gln Gly Ser Gly Pro Arg Leu
                165                 170                 175
Glu Asp Lys Glu Gly Pro Thr Glu Val Thr Asp Ala Phe Gly Asn Lys
            180                 185                 190
Ser Val Val Glu Lys Lys Lys Lys Leu Ser Ser Ala Glu Met Arg Lys
        195                 200                 205
Lys Arg Lys Glu Arg Leu Ala Arg Lys
    210                 215
```

<210> 37826
<211> 113
<212> PRT
<213> A.fumigatus

<400> 37826

```
Glu Leu Thr Ala Ser Leu Glu Thr Val Val Leu Ile Gln Asn Leu Glu
1               5                   10                  15
Lys Thr Pro Met Thr Phe Val Pro Val Pro Pro Ala Ala His Leu Ser
            20                  25                  30
Tyr Pro Pro Glu Val Gly Glu Leu Thr Ser Leu Val Met Asn Ile Val
        35                  40                  45
Ile Pro Ser Lys Pro Lys Asn Pro Asn Gln Arg Tyr Pro Val Met Val
    50                  55                  60
Tyr Val His Gly Gly Ser Leu Leu Tyr Arg Gly Ala Asn Leu Pro Ile
65                  70                  75                  80
Phe Asp Ala Val Asn Leu Val Ser Gln Ser Ile Lys Met Gly Thr Pro
                85                  90                  95
Ile Ile Cys Val Asn Phe Asn Tyr Arg Val Gly Pro Arg Arg Ile Pro
            100                 105                 110
Ser
```

<210> 37827
<211> 272
<212> PRT
<213> A.fumigatus

<400> 37827

```
Thr Ser Thr Thr Ala Ser Ala Leu Gly Gly Phe Leu Ala Ser Lys Glu
1               5                   10                  15
Ile Gln Arg Glu Leu Arg Glu Asp Gly Phe Gln Gly Cys Gly Asn Phe
            20                  25                  30
Gly Phe Thr Asp Gln Gln Val Ala Phe Glu Trp Cys Gln Arg Tyr Ile
```

```
        35                  40                  45
Asp Ala Leu Gly Gly Asp Pro Asn Asn Val Thr Ala Val Gly Glu Ser
    50                  55                  60
Ala Gly Gly Ile Ser Ile Ser Asn Gln Leu Ala Ala Ala Ser Pro Leu
65                  70                  75                  80
Arg Phe Arg Arg Ala Ala Cys Met Ser Gly Leu Ser Val Ser Ile Pro
                85                  90                  95
Gln Trp Thr Met Glu Gln His Glu Ala Leu Phe Glu Ala Val Cys Arg
            100                 105                 110
Tyr Phe Arg Ile Asp Ser Thr Arg Ser Asp Val Leu Asp His Leu Gly
        115                 120                 125
Gln Ile Pro Gln Gln Met Leu Ala Asp Ala Thr Pro Ile Ile Gln Gly
    130                 135                 140
Val Leu Ser Gly Thr Gly Asn Pro Cys Leu Asp Gly Trp Phe Tyr Lys
145                 150                 155                 160
Ser Asp Thr Asp Pro Arg Glu Ile Gln Thr Ala Pro Ser Trp Leu Asp
                165                 170                 175
Ala Leu Met Leu Gly Asp Thr Tyr His Glu Gly Ile Ile Phe His Ser
            180                 185                 190
Asn Ile Leu Glu Asp Thr Phe Gln Ser Ile Arg Gln Thr Leu Ala Glu
        195                 200                 205
Tyr Val Gly Ala Glu Asp Glu Thr Asp Gln Ile Leu Ala Glu Tyr Gly
    210                 215                 220
Ile Ser Pro Asp Val Pro Leu Gly Leu Leu Ile Lys Arg Val Glu His
225                 230                 235                 240
Met Cys Arg Asp Ala Val Phe Lys Ile Pro Asn Tyr Ala Thr Ala Leu
                245                 250                 255
Gly Asn Ser His Leu Ala Asp Lys Arg Ala Leu Phe Cys Val Pro Phe
            260                 265                 270
```

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<210> 37828
<211> 301
<212> PRT
<213> A.fumigatus

<400> 37828

```
Ala Arg Ile Leu Tyr His Phe Trp Gly Asn Ile Arg Trp Arg Val Gln
1               5                   10                  15
Asp Pro Tyr Phe Pro Lys Gly Thr Pro Leu Val Thr His Ser Gly Lys
            20                  25                  30
Pro Thr His Pro Val Phe Val Ser Tyr Gly Ile Ser Ser Arg Ala Pro
        35                  40                  45
Ile Leu Glu Thr Asp Tyr Asn Gln His Lys Ser Asn Ser Thr Tyr Phe
    50                  55                  60
Ser Asp Leu Asp Val Ala Arg Thr Ala Leu Val Thr Arg Leu Tyr Ser
65                  70                  75                  80
Pro Gly Ala Ser Ile Val Ser Lys Glu Leu Asp Val Glu Leu Leu Glu
                85                  90                  95
Ala Ser Gln Arg Asp Gly Thr Lys Pro Pro Lys Arg Lys Gly Ile Tyr
            100                 105                 110
Val Ala Leu Gly Ser Val Tyr Cys Ser Phe Lys Arg Glu Ile Lys Pro
        115                 120                 125
Phe Glu Leu Tyr Glu Met Glu Thr Lys Val Ile Ala Trp Asp Gln Lys
    130                 135                 140
Trp Met Tyr Val Met Thr Phe Phe Phe Arg Pro Ala Ser Arg Lys Gly
145                 150                 155                 160
```

```
Gly Glu Lys Thr Leu Phe Ala Thr Ala Leu Ser Lys Tyr Val Val Lys
                165                 170                 175
Lys Gly Arg Leu Thr Val Pro Pro Glu Arg Val Leu Arg Ala Ser Gly
            180                 185                 190
Phe Leu Pro Pro Arg Pro Glu Gly Ser Val Ala Pro Glu Val Thr Thr
        195                 200                 205
Ser Ala Glu Ala Ser Gly Met Gly Thr Pro Val Asn Gly Glu Gly Leu
    210                 215                 220
Thr Ala Ser Ala Ser Gly Val Asp Gly Ser Leu Val Arg Glu Val Leu
225                 230                 235                 240
Lys Leu Arg Glu Glu Asp Met Pro Glu Pro Lys Ser Leu Glu Ala Glu
                245                 250                 255
Lys Arg Ser Asn Ser Ala Ser Trp Asp Ser Asn Glu Trp Thr Trp Glu
            260                 265                 270
Arg Ile Glu Gln Glu Arg Leu Arg Gly Leu Lys Val Ile Glu Gly Tyr
        275                 280                 285
Ser Thr Met Asp Ala Lys Leu Tyr Glu Glu Trp Gln Arg
    290                 295                 300
```

<210> 37829
<211> 236
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (42),(61)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37829

```
Tyr Cys Ile Ala Ala Pro Ser Pro Pro Arg Gly Gln Cys Cys Leu Arg
1               5                   10                  15
Gln Leu Pro Arg Ser Arg His Ser Arg Gly Ala Ser Leu Leu Pro Asn
            20                  25                  30
Arg Trp Trp Arg Pro Gln Arg Pro Tyr Xaa Lys Thr Tyr Leu Leu Asp
        35                  40                  45
Ile Pro Val Pro Arg Val Leu Leu Gln His Gly Ala Xaa Thr Thr Asn
    50                  55                  60
Trp Lys Thr Leu Phe Thr Asp Leu Cys Ala Thr Asp Leu Gly Asp Gly
65                  70                  75                  80
Ser Ala Asn Gly Pro Lys Leu Tyr Leu Val Val Glu Val Arg Val Pro
                85                  90                  95
Glu Thr Pro Thr Val Gly Ala Pro Leu Gln Ser Arg Pro Ser Val Ser
            100                 105                 110
Arg Gly Ser Ser Ser Ala Ala Lys Ser Pro Thr Ser Ala Gly His Pro
        115                 120                 125
Gly Lys Gly Ser Leu Arg Thr Arg Arg Ser Met Ile Trp Ser Thr Lys
    130                 135                 140
Pro Arg Gly Leu Gln Ser Ala Glu Pro Ala Lys Glu Ser Ser Ala Gly
145                 150                 155                 160
Pro Pro Gln Ser Ser Glu Ser Ala Ser Ser Thr Lys Asp Arg Gly Asp
                165                 170                 175
Thr Gln Ser Ser Lys Ser Ser Thr Thr Leu Arg Thr Leu Gly Val Gly
            180                 185                 190
Leu Leu Glu Val Ser Gln Ile Leu Arg Gln Glu Lys Asp Ala Glu Gln
        195                 200                 205
```

```
Ile Val Asn Ile Trp Ser Pro Ser Ser Trp Leu Glu Glu Gly Glu Gly
    210                 215                 220
His Val Asp Gly Phe Asp Asp Leu Val Arg Thr Leu
225                 230                 235
```

<210> 37830
<211> 86
<212> PRT
<213> A.fumigatus

<400> 37830

```
Arg Glu Arg Glu Met Val Lys Gly Arg Lys Val Gly Gln Glu Ala Ile
1               5                   10                  15
Thr Met Glu Arg Lys Ile Glu Ala Thr Lys Lys Gly Pro Asp Cys Thr
            20                  25                  30
Arg Ser Arg His Pro Gly Arg Lys Leu Ala Asp Arg Ser His Trp Thr
        35                  40                  45
Gly Leu Asn Thr Asn Leu Leu Asp Thr Thr Gly Leu Leu Ser Thr Ser
    50                  55                  60
Leu Glu Ala Gly Phe Trp Ile Leu Asp Ser Ser Ser Leu Lys Ala Asn
65                  70                  75                  80
Phe Ile His Arg Tyr Tyr
                85
```

<210> 37831
<211> 249
<212> PRT
<213> A.fumigatus

<400> 37831

```
Ser Gly Arg Glu Arg Lys Thr Tyr His Ser Val Asn Thr Thr Ala Val
1               5                   10                  15
Ala Ser Leu Asp Glu Gln Leu His Ile Gly Val His Glu Trp His Ser
            20                  25                  30
His Gly Asp Ile Arg Ala Val Gly Lys Asp Lys Val Gly Val Leu Ala
        35                  40                  45
Glu Leu Leu Asp Glu Gly Glu Asp Val Ile Pro Ala Ala Ala Val Glu
    50                  55                  60
Thr Gly Ala Val Ile Thr Gln Phe Ile Asp Asn Leu His Met Leu Ala
65                  70                  75                  80
His Gly Thr Lys Ala Ser Trp Arg Val Ser Trp Thr His Leu Ile His
                85                  90                  95
Leu Lys Arg Ser Ser Asp Gly Leu Asn Gln Asn Ser Arg Thr Asp Gly
            100                 105                 110
Pro Pro Gly His Ala Asp Val Val Leu Ser Glu Val Glu Asp Val Ile
        115                 120                 125
Pro Glu Ser Gly Leu Glu Val Gly Leu His Leu Gly Glu Val Glu Val
    130                 135                 140
Arg Thr Val Ala Ala Ser Asn Lys Leu Leu Gly Ile Val Glu Glu Val
145                 150                 155                 160
Lys Thr Lys Val Glu Gln Ala Ala Arg Asp Arg Leu Ala Val His Ser
                165                 170                 175
Lys Val Leu Leu Val Lys Val Pro Ala Ser Ser Thr Ser Asn Gln Gly
            180                 185                 190
Gly Lys Gly Ala Val Cys Thr Glu Leu Val Leu Leu Val Ser Leu Leu
        195                 200                 205
```

```
Glu Val Asp Leu Thr Ala Asn Ser Ile Val Gln Val Asp Leu Ala Val
    210                 215                 220
Asp His Val Arg Pro Gly Arg Gly Thr Arg Val Tyr Ala Cys Gln Phe
225                 230                 235                 240
Val Phe Leu Met Gln Leu Asn Val Lys
                245
```

<210> 37832
<211> 136
<212> PRT
<213> A.fumigatus

<400> 37832

```
Leu Thr Leu Glu Ile Arg His Val Ser Pro Asp Val Arg Ile Gln Ser
1               5                   10                  15
Ile Asp Asp His Leu Ala Val Arg Gly Thr Ser Asp Leu His Ala Thr
            20                  25                  30
Val Asn Gln Thr Gly Ser Gly Arg Ser Thr Leu Pro Cys Val Ile Phe
        35                  40                  45
Thr Asn Val Phe Gly Leu Gly Glu Glu Val Arg Gln Met Thr Leu Val
    50                  55                  60
Asp Leu Gly Leu Ala Ile Asp Thr Ala Leu Arg Glu Gly Phe Pro Gly
65                  70                  75                  80
Arg Val Glu Arg Ala Val Glu Asp Gly Glu Glu Ser Ala Ser Phe Leu
                85                  90                  95
Gly Glu Asp Leu Ala Met Leu Val Val His Gly Ala Gln Asp Gly Asp
            100                 105                 110
Ile Leu Glu Leu Tyr Phe Asp Leu Ala His Val Asp Ile Val Phe Cys
        115                 120                 125
Asn Asp Gln Trp Leu Gly Met Arg
    130                 135
```

<210> 37833
<211> 194
<212> PRT
<213> A.fumigatus

<400> 37833

```
Arg Ala Val Leu Leu Gln Leu Gln Pro Pro Thr Thr Thr Pro Val Ser
1               5                   10                  15
Ser Ser Pro Val His Cys Ala Ala Tyr Arg Leu Asn Leu Pro Ser Gln
            20                  25                  30
Glu Ile Ser Ser Thr Met Ser Ala Ser Thr Ser Ser Cys Lys Val Thr
        35                  40                  45
Leu Glu Asn Val Ala Glu Ile Leu Lys Asn Asp Thr Lys Val Lys Leu
    50                  55                  60
Ala Gly Val Asp Val Asp Gly Gln Leu Arg Gly Lys Leu Ile Ser Lys
65                  70                  75                  80
Lys Lys Phe Leu Ser Ile Ala Ala Asp Gly Phe Gly Phe Cys Ser Val
                85                  90                  95
Ile Phe Gly Trp Asp Met His Asp Arg Thr Tyr Phe Lys Glu Leu Ala
            100                 105                 110
Ile Ser Asn Lys Glu Asn Gly Tyr Arg Asp Leu Val Ala Val Pro Asp
        115                 120                 125
Leu Ser Ser Phe Arg Arg Ile Pro Trp Glu Asn Asp Val Pro Phe Phe
    130                 135                 140
```

Leu Val Ser Phe Phe Asp Pro Glu Thr Lys Ala Pro Val Cys Ala Cys
145 150 155 160
Pro Arg Gly Leu Leu Lys Thr Ala Leu Ser Lys Val Glu Ala Ala Gly
165 170 175
Tyr Arg Ala Met Ala Gly Gly Arg Ser Ile Ala Leu Leu Asp Phe Pro
180 185 190
Gly Pro

<210> 37834
<211> 259
<212> PRT
<213> A.fumigatus

<400> 37834
Pro Phe Arg Tyr Val Val Lys Ser Ile Gly Ala Lys His Gly Ile Thr
1 5 10 15
Pro Ala Phe Met Ala Lys Pro Arg Glu Gly Leu Pro Gly Asn Ser Gly
20 25 30
His Met His Ile Ser Leu Val Thr Glu Asp Gly Lys Asn Ala Phe Leu
35 40 45
Arg Pro Thr Pro Asp Pro Ser Pro Pro Tyr Pro Asp Val Ala His Leu
50 55 60
Ser Asp Leu Gly Arg His Phe Leu Ala Gly Ile Leu Thr Gly Leu Pro
65 70 75 80
Asp Ile Met Pro Leu Phe Ala Pro Thr Ile Asn Ser Tyr Lys Arg Leu
85 90 95
Val Glu Asn Phe Trp Ala Pro Val Thr Val Ser Trp Gly Leu Glu His
100 105 110
Arg Ala Ala Ser Ile Arg Leu Ile Thr Pro Pro Thr Ala Ser Ala Lys
115 120 125
Ala Thr Arg Phe Glu Val Arg Val Pro Gly Ala Asp Ala Asn Pro His
130 135 140
Phe Val Leu Ala Ala Ile Val Ala Leu Gly Trp Arg Gly Val Glu Lys
145 150 155 160
Lys Leu Glu Ile Pro Val Pro Pro Leu Ser Lys Asp Glu Asp Met Gly
165 170 175
Gly Ala Ser Asp Gln Gly Val Arg Leu Ala Lys Thr Leu Lys Glu Ala
180 185 190
Thr Val Ala Phe Met Arg Lys Glu Ser Val Ala Arg Lys Val Phe Gly
195 200 205
Asp Gln Phe Val Asp His Phe Gly Gly Thr Arg Glu His Glu Val His
210 215 220
Leu Trp Glu Glu Ala Val Thr Asp Trp Phe Val Phe Pro Ala Cys Met
225 230 235 240
Thr Thr Gly Met Met Leu Thr Gln Asp Arg Glu Val Arg Arg Tyr Ile
245 250 255
Glu Thr Val

<210> 37835
<211> 65
<212> PRT
<213> A.fumigatus

<400> 37835

```
Ile Leu Leu Phe Val Ser Tyr Arg Gln Ser Glu Thr Asp Thr Pro Phe
1               5                  10                  15
Ala Pro Glu Ser Val Ser Asn Arg Asn Gly Ala Arg Lys Leu Glu Leu
            20                  25                  30
Tyr Ser Leu Ala Thr Gly Tyr His Met Gln Pro Val Ile Phe Thr Cys
        35                  40                  45
His Met Pro Thr Leu Lys Ile Ala Met Ser Thr Val Ser Arg Trp Asn
    50                  55                  60
Ile
65
```

<210> 37836
<211> 139
<212> PRT
<213> A.fumigatus

<400> 37836

```
Cys His His Asp Cys Ala Ile His Gly Arg Leu Cys Glu Ala Ala His
1               5                  10                  15
Gln Asp Leu Pro Pro Pro Trp Cys Ser Arg Tyr Gly Lys Phe Phe Ala
            20                  25                  30
Leu Cys Leu Ile Asn Arg Arg Glu Thr Asp Ser Pro Arg Val Val Trp
        35                  40                  45
Leu Leu Arg Ser Leu Ser Arg Met Thr Leu Ser Pro Thr Thr Arg Pro
    50                  55                  60
Trp Arg Ala Cys Ala Pro Thr Ser Cys Val Arg Ser Val Pro Ala Thr
65                  70                  75                  80
Thr Val Pro Gly Leu Leu Thr Pro Leu Ser Pro Pro Leu Pro Pro Arg
                85                  90                  95
Ser Ser Thr Asn Thr Cys Leu Pro Pro Thr Ser Cys Ser Ser Ala Gly
            100                 105                 110
Arg Thr Ser Thr Ser Pro Pro Thr Ile Cys Ser Thr Pro Thr Ser Leu
        115                 120                 125
Ala Arg Ser Pro Lys Arg Val Ser Ala Arg Ile
    130                 135
```

<210> 37837
<211> 93
<212> PRT
<213> A.fumigatus

<400> 37837

```
Phe Pro Ala Glu Tyr Glu Phe Tyr Gln Phe Arg Ala Pro Gly Asp Tyr
1               5                  10                  15
Ser Thr Pro Glu Arg Asn Ala Ser Ala Thr Ala Ala Phe Leu Gln Lys
            20                  25                  30
Asn Pro Val Glu Ala Leu Pro Ala Leu Thr Glu Gly Met Phe Gly Tyr
        35                  40                  45
Ser Leu Thr Arg Pro Ile His Asn Gln Glu Tyr Tyr Tyr Gly Ile Phe
    50                  55                  60
Asp Ala Cys Glu Gln Phe Asn Cys Glu Ile Glu Gly Trp His Thr Glu
65                  70                  75                  80
Ser Gly Pro Gly Val Phe Glu Ala Val Ser Val Leu Gly
                85                  90
```

<210> 37838

<211> 158
<212> PRT
<213> A.fumigatus

<400> 37838
Phe Leu Ser Phe Phe Phe Leu Asn Phe Ile Trp Val Ala Phe Leu His
1 5 10 15
Pro Ser Pro His Pro Gln Pro Leu Ile Ile Ala Lys Asp Asn Ile Asn
20 25 30
Met Ser Gln Ile Glu Val Gln Leu Lys Asp Val Ala Ile Leu Gly Ala
35 40 45
Val Asn Asn Glu His Arg Lys Ile Leu Thr Lys Glu Ala Cys Ala Phe
50 55 60
Leu Ala Ile Leu His Arg Thr Phe Asn Pro Thr Arg Lys Ala Leu Thr
65 70 75 80
Gln Arg Arg Ile Asp Arg Gln Ala Glu Ile Asp Lys Gly His Leu Pro
85 90 95
Asp Phe Leu Pro Glu Thr Lys His Ile Arg Glu Asn Asp Ala Trp Lys
100 105 110
Gly Ala Pro Pro Ala Pro Gly Leu Val Asp Arg Arg Val Glu Ile Thr
115 120 125
Gly Pro Thr Asp Arg Lys Met Val Val Asn Ala Leu Asn Ala Asp Val
130 135 140
Trp Thr Tyr Met Ala Asp Phe Glu Gly Glu Ser Leu Asp Ile
145 150 155

<210> 37839
<211> 109
<212> PRT
<213> A.fumigatus

<400> 37839
Lys Asp Lys Leu Thr Gly Val Asp Ser Ser Ala Pro Thr Trp Ala Asn
1 5 10 15
Met Ile Asn Gly Gln Val Asn Leu Tyr Asp Ala Ile Arg Arg Gln Ile
20 25 30
Asp Phe Lys Gln Gly Asn Lys Glu Tyr Lys Leu Arg Thr Asp Arg Ala
35 40 45
Leu Pro Thr Leu Ile Ala Arg Ala Arg Gly Trp His Leu Asp Gln Lys
50 55 60
His Phe Thr Val Asp Gly Glu Pro Ile Ser Gly Ser Leu Phe Asp Phe
65 70 75 80
Gly Leu Tyr Phe Phe His Asn Ala Lys Glu Leu Val Ala Arg Gly His
85 90 95
Gly Pro Tyr Phe Tyr Leu Pro Lys Met Glu Ser His Leu
100 105

<210> 37840
<211> 77
<212> PRT
<213> A.fumigatus

<400> 37840
His Val Gln Ile Ile Tyr Glu Leu Arg Asp His Ser Ser Gly Leu Asn
1 5 10 15
Cys Gly Arg Trp Asp Tyr Ile Phe Ser Phe Ile Lys Lys Phe Arg Lys

```
            20                  25                  30
His Pro Asn Phe Val Leu Pro Asp Arg Ser Asp Val Thr Met Thr Val
        35                  40                  45
Pro Phe Met Asp Ala Tyr Val Lys Leu Leu Ile Lys Thr Cys His Arg
    50                  55                  60
Arg Gly Val His Ala Met Val Ser Phe Ser Leu Ser Ala
65                  70                  75
```

<210> 37841
<211> 163
<212> PRT
<213> A.fumigatus

<400> 37841

```
Gln Ser Gln Gly Gly Met Ala Ala Gln Ile Pro Ile Lys Asp Asp Pro
1               5                   10                  15
Val Ala Asn Asp Lys Ala Met Glu Ser Val Arg Ala Asp Lys Leu Arg
            20                  25                  30
Glu Val Arg Ala Gly His Asp Gly Thr Trp Val Ala His Pro Ala Leu
        35                  40                  45
Ala Ser Ile Ala Ser Glu Val Phe Asn Lys Tyr Met Pro Thr Pro Asn
    50                  55                  60
Gln Leu Phe Val Arg Arg Gln Asp Val Asn Ile Thr Ala Asn Asp Leu
65                  70                  75                  80
Leu Asn Thr Asn Val Pro Gly Lys Ile Thr Glu Glu Gly Ile Arg Lys
                85                  90                  95
Asn Leu Asn Ile Gly Leu Ser Tyr Met Glu Gly Trp Leu Arg Gly Val
            100                 105                 110
Gly Cys Ile Pro Ile Asn Tyr Leu Met Val Cys Leu Phe Thr Trp Thr
        115                 120                 125
Leu Thr Thr Phe Ile Leu Ala Asn Phe Arg Val Arg Arg Cys Arg Leu
    130                 135                 140
Pro Pro Lys Cys Pro Gly Leu Asn Ser Gly Asn Trp Val His His Gln
145                 150                 155                 160
Val Thr Thr
```

<210> 37842
<211> 63
<212> PRT
<213> A.fumigatus

<400> 37842

```
Ser Arg Ser Gln Ser Pro Ser Leu Pro Arg Ser Val Asn Pro His Pro
1               5                   10                  15
Thr Gln Arg Gln His Gln Asp Ser Trp Leu Ser Phe Pro Leu His Tyr
            20                  25                  30
Ser Val Ser Ile Ser Ser Leu Lys Lys Pro Ala Thr Ala Ala Pro Leu
        35                  40                  45
Ile Gly Asn Ala Gln Leu Phe Pro Val Thr Leu Leu Pro Ala Lys
    50                  55                  60
```

<210> 37843
<211> 115
<212> PRT
<213> A.fumigatus

<400> 37843
Gly Ile Arg Arg Leu Ile Asp Lys Tyr Gly Leu Asp Thr Gln Val Arg
1 5 10 15
Asp Asn Thr Pro Val Tyr Ile Glu Asp Met Val Pro Phe Asn Glu Thr
20 25 30
Ile Leu Gln Thr Arg Glu Lys Arg Phe His Leu Gly Phe Gln Arg Ile
35 40 45
Leu Leu Cys Phe Tyr Val Met Met Gly Leu Phe Thr Val Ser Arg Lys
50 55 60
Gly Ala Met Leu His Leu Gln Tyr Lys His Leu Val Val Thr Leu Gln
65 70 75 80
Lys Asn Pro His Gly Gly Pro Pro Val Pro Met Val Asp Phe Arg Ala
85 90 95
Glu Phe Ile Lys Gly Phe Leu Gly Met Lys Glu Leu Tyr Val Thr Ile
100 105 110
His Gly Pro
115

<210> 37844
<211> 74
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (11)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37844
Pro Ser Arg Thr Asn Gly Leu Val Gly His Xaa Pro Thr Ile Ile Gln
1 5 10 15
Val His Lys Tyr His His Asn Tyr Ile Glu Lys Ser Ser Asn Tyr Leu
20 25 30
Lys Asn Tyr Phe Leu Tyr Pro Gly Ser Ile Tyr Arg His Leu Pro Asn
35 40 45
Cys Ser His Tyr Arg Tyr Glu Ile Ala Pro Phe Leu Leu Gly Phe Leu
50 55 60
Ile Asn Leu Asn Thr Gln Leu Pro Phe Leu
65 70

<210> 37845
<211> 150
<212> PRT
<213> A.fumigatus

<400> 37845
Trp Thr Leu Ser Gly Ser Ser Leu Pro Asp Asp Gln Gly Pro Pro Ser
1 5 10 15
Pro Gln Arg Thr Leu Pro Ser Val Val Gln Tyr Pro Gln Gly Lys Gly
20 25 30
Phe Ser Pro Tyr Ile Leu Leu His Asp Val Cys Asn Tyr Ser Leu Thr
35 40 45
Phe Tyr Asp Arg Arg Leu Met Lys Phe His Ser Leu Asn Phe Thr Phe
50 55 60
Met Leu Val Gln Leu Ser Tyr Gly Phe Ile Thr Gly Ser Leu Gly Leu

```
65                  70                  75                  80
Leu Ser Asp Ser Ile His Met Phe Phe Asp Cys Leu Ala Leu Val Val
                85                  90                  95
Gly Leu Cys Ala Ala Val Met Ser Lys Trp Pro Ser Ser Ala Arg Phe
            100                 105                 110
Pro Tyr Gly Tyr Gly Lys Val Asp Thr Leu Ser Gly Phe Ala Asn Gly
        115                 120                 125
Ile Phe Leu Met Tyr Asp Leu Asn Pro Pro Phe Asn Glu Ser Lys Pro
    130                 135                 140
Asp Asn Tyr Pro Gly Ser
145                 150
```

<210> 37846
<211> 143
<212> PRT
<213> A.fumigatus

<400> 37846

```
Arg Glu Gly Gln Ile Gly Lys Lys Asp Thr Met Ser Thr Gly Pro Pro
1               5                   10                  15
Met Ser Ser Leu Asp Thr Gln Phe Pro Ala Thr His Gly His Gly Phe
            20                  25                  30
Gly His Ser Arg Gly His Gly His Ser Arg Ser Lys Arg Trp Thr Gln
        35                  40                  45
Pro Pro Val Gly Gln Ser Leu Ser Ser Leu Asn Gly Ser Ala Thr Pro
    50                  55                  60
Val Gln Ser Val Leu Pro Ser Val Asp Ala Val Ser Pro Asn Gly Ser
65                  70                  75                  80
Ala Leu Gly Ser Leu Ser His Asn His His His Ser His Ser His Ser
                85                  90                  95
His Gly Gly Ala Asn His Pro Gly Ser Cys Asp His Gly His Ser Gly
            100                 105                 110
His Tyr His Pro Ser Glu Arg Thr Glu Asp Ala Thr Glu Leu Arg Ala
        115                 120                 125
Arg Ala Val Pro Val Ile Ser Thr Asp Phe Thr Pro Ser Thr Lys
    130                 135                 140
```

<210> 37847
<211> 408
<212> PRT
<213> A.fumigatus

<400> 37847

```
Leu Thr Tyr Ser Ser Ser Arg Glu Leu Leu Ser Gly Leu Leu Thr Thr
1               5                   10                  15
Leu Pro Trp Ile Ala Leu Ser Trp Tyr Tyr Asn Gln Tyr Ala Asn Arg
            20                  25                  30
Asn Ser Asp Ile Asp Ile Ala Asn Thr Asp Lys Val Asp Pro Asn Thr
        35                  40                  45
Leu Ala Gly Gly Ser Leu Asp Gln Val Val Leu Arg Thr Cys Ser Leu
    50                  55                  60
Thr Ala Val Ser Met Val Met Thr Gly Val Gly Gln Leu Gln Trp Ser
65                  70                  75                  80
Ser Lys Ala Gly Asn Lys Ser Ala Val Lys Val Pro Asn Leu Arg Ala
                85                  90                  95
Asp Phe Ala Gly Val Ala Leu Ala Arg Ile Phe Ser Ile Ala Leu Pro
```

```
            100                 105                 110
Ile Tyr Ala Ala Leu Glu Val Ser Gly Phe Leu Val Ser Leu Gly Val
        115                 120                 125
Leu Leu Ala Ala Ala Ser Gly Leu Pro Ala Leu Ala Lys Gly Arg Ala
    130                 135                 140
Ala Gly Ser Asp Thr Arg Glu Lys Leu Ala His Lys Arg Phe Thr Val
145                 150                 155                 160
Ala Leu Ile Leu Thr Ile Leu Val Leu Ser Phe Phe Gly Trp Val Gly
                165                 170                 175
Ser Tyr Asp Ser Arg Ser Tyr Phe Gly His Leu Ala Leu Leu Leu Ser
            180                 185                 190
Ile Phe Val Met Pro Pro Pro Phe Ala Asp Val Gly Gln Ser Ser Ser
        195                 200                 205
Arg Gly Thr Gly Phe Gly Val Ser Ala Ser Ser Lys Ser Asp Ala Leu
    210                 215                 220
Ala Arg Arg Ile Ser Gly Ser Leu Ser Val Val Ser Pro Asp Asp Gly
225                 230                 235                 240
Ile Leu Thr Leu Val Leu Gly Leu Val Val Gly Leu Ile Gly Phe Val
                245                 250                 255
Leu Phe Gly Ile Pro Ser Leu Ser Ala Leu Asp Ala Met Tyr Leu Leu
            260                 265                 270
Val Ala Ala Gly Ser Tyr Ala Thr Ser Leu Leu Phe Ser Ser Pro Pro
        275                 280                 285
His Leu Arg Ser Leu His Lys Trp Gly Leu Ala Thr Gly Ile Val Ala
    290                 295                 300
Ala Gly Leu Leu Ser Ser Pro Pro Ile Ala Ala Asp Asn Arg Val Val
305                 310                 315                 320
Tyr Ala Ser Arg Cys Thr Leu Ala Val Met Ser Phe Phe Ala Ser Arg
                325                 330                 335
Phe Asp Asp Arg Arg Leu Arg Leu Glu Arg His Ser His His Asn Gln
            340                 345                 350
His His Asp Gly His Ser Val Ala Pro Ala Ser Arg Met Thr Lys Val
        355                 360                 365
Leu Leu Arg His Ser Glu Pro Tyr Pro Leu Leu Tyr Ser Ile Leu Lys
    370                 375                 380
Glu Arg Asp Ser Arg Arg Ile Phe Tyr Phe Met Thr Tyr Ala Ile Thr
385                 390                 395                 400
Leu Leu Arg Phe Met Thr Asp Asp
                405
```

<210> 37848
<211> 62
<212> PRT
<213> A.fumigatus

<400> 37848

```
Gly Arg Tyr Arg Thr Ile Ile Thr Thr Arg Thr Arg Thr Arg Met Val
1               5                   10                  15
Glu Pro Thr Thr Gln Gly Ala Ala Thr Thr Asp Ile Gln Gly Ile Ile
            20                  25                  30
Ile His Pro Lys Gly Gln Lys Met Leu Gln Asn Cys Ala Arg Val Leu
        35                  40                  45
Phe Leu Ser Ser Leu Pro Ile Leu Arg Pro Ala Pro Ser Glu
    50                  55                  60
```

<210> 37849

<211> 117
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (107)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37849
Gln Leu Pro Arg Ile Ile Ser Ile Glu Ile Ile Tyr Glu Ala Val Glu
1 5 10 15
Arg Leu Ser Ser Gly Ser Gln Met His Arg Leu Gly Glu Leu Leu Ala
20 25 30
Val Ser Val Ala Gly Leu Val Val Asn Leu Val Gly Ile Met Ala Phe
35 40 45
Asp His Gly His Ala His His Gly His Asp His Gly His Ser His Ser
50 55 60
His Gly Asn Glu Asn Met His Gly Ile Phe Leu His Ile Leu Ala Asp
65 70 75 80
Thr Leu Gly Ser Val Ala Val Val Ile Ser Thr Ile Leu Val His Leu
85 90 95
Ser Gly Trp Ala Gly Ser Asp Thr Ser Leu Xaa Ser Thr Ser Arg Glu
100 105 110
Trp Lys Ala Leu Val
115

<210> 37850
<211> 159
<212> PRT
<213> A.fumigatus

<400> 37850
Val Arg Pro Gly Ile Glu Lys Ile Gly His Leu Leu Lys Tyr Ser Glu
1 5 10 15
Asn Phe Ser Ala Ser Arg Val Ala Glu Val Thr Met Ser Leu Arg Ser
20 25 30
Gly Arg Leu Leu Ile Val Phe Phe Ser Ser Pro Lys Arg Thr Ser Val
35 40 45
Ala Ile Val Arg Ser Trp Ala Ser Ser Asp Arg Ile Arg Glu Tyr Leu
50 55 60
Phe Arg Ser Gly Ser Ser Lys Thr Ser Leu Trp Ser Ile Pro Ser Val
65 70 75 80
Met Tyr Leu Ile Phe Val Ser Gly Leu Val Gln Ser Ser Lys Arg Ile
85 90 95
Val Tyr Pro Thr Ser Ala Pro Ser Leu Gln Pro Thr Ser Ser Ala Thr
100 105 110
Arg Val Ala Thr Asp Met Ala Ala Thr Arg Arg Gly Cys Val His Pro
115 120 125
Ile Ile Pro Leu Phe Ala Tyr Pro Ala Ser Ala Arg Tyr Cys Val Thr
130 135 140
Trp Val Val Phe Pro Asp Pro Val Phe Pro Thr Thr Ile Thr Asn
145 150 155

<210> 37851
<211> 534

<212> PRT
<213> A.fumigatus

<400> 37851

```
Arg Ser Phe Trp Ala Thr Glu Glu Asp Asn Gln Lys Pro Ala Arg Pro
1               5                  10                  15
Gln Thr His Cys Tyr Phe Ser His Ser Gly Cys Arg Lys Val Leu Arg
            20                  25                  30
Ile Leu Gln Gln Val Ser Asp Leu Leu Asp Ser Arg Ser Tyr Leu Ser
        35                  40                  45
Arg Arg Asp His Val Phe Glu Arg Ala Arg Ala Arg Leu Leu Gly Cys
    50                  55                  60
Gly Ser His His Cys Gln Ala Asp Ser Leu Asp Arg Thr Thr Trp Arg
65                  70                  75                  80
Tyr Phe Tyr Val Leu Thr Gly Gln Glu Glu Ile Asp Thr Ala Cys Glu
                85                  90                  95
Ile Leu Tyr Glu Arg Met Lys Ala Leu Gly Lys Gly Val Pro Glu Leu
            100                 105                 110
Ile Ile Leu Pro Val Tyr Ser Ala Leu Pro Ser Glu Met Gln Ser Arg
        115                 120                 125
Ile Phe Glu Pro Ala Pro Pro Gly Gly Arg Lys Val Val Ile Ala Thr
    130                 135                 140
Asn Ile Ala Glu Thr Ser Ile Thr Ile Asp Asn Ile Tyr Tyr Val Ile
145                 150                 155                 160
Asp Pro Gly Phe Val Lys Gln Asn Ala Tyr Asp Pro Lys Leu Gly Met
                165                 170                 175
Asp Ser Leu Val Val Thr Pro Ile Ser Gln Ala Gln Ala Lys Gln Arg
            180                 185                 190
Ala Gly Arg Ala Gly Arg Thr Gly Pro Gly Lys Cys Tyr Arg Leu Tyr
        195                 200                 205
Thr Glu Ala Ala Tyr Gln Ser Glu Met Leu Pro Thr Thr Ile Pro Glu
    210                 215                 220
Ile Gln Arg Gln Asn Leu Ser His Thr Ile Leu Met Leu Lys Ala Met
225                 230                 235                 240
Gly Ile Asn Asp Leu Leu His Phe Asp Phe Met Asp Pro Pro Pro Thr
                245                 250                 255
Asn Thr Met Leu Thr Ala Leu Glu Glu Leu Tyr Ala Leu Ser Ala Leu
            260                 265                 270
Asp Asp Glu Gly Leu Leu Thr Arg Leu Gly Arg Lys Met Ala Asp Phe
        275                 280                 285
Pro Met Glu Pro Ala Leu Ala Lys Val Leu Ile Ala Ser Val Asp Met
    290                 295                 300
Gly Cys Ser Glu Glu Met Leu Ser Ile Val Ala Met Leu Ser Ile Gln
305                 310                 315                 320
Ser Val Phe Tyr Arg Pro Lys Glu Lys Gln Gln Gln Ala Asp Gln Lys
                325                 330                 335
Lys Ala Lys Phe His Asp Pro His Gly Asp His Leu Thr Leu Leu Asn
            340                 345                 350
Val Tyr Asn Gly Trp Lys Asn Ser Lys Phe Asn Asn Ala Trp Cys Tyr
        355                 360                 365
Glu Asn Phe Ile Gln Ala Arg Gln Ile Arg Arg Ala Gln Asp Val Arg
    370                 375                 380
Gln Gln Leu Leu Gly Ile Met Glu Arg Tyr His His Lys Ile Val Ser
385                 390                 395                 400
Cys Gly Arg Asp Thr Lys Lys Val Arg Gln Ala Leu Cys Thr Gly Phe
                405                 410                 415
```

```
Phe Arg Asn Ala Ala Arg Lys Asp Pro Gln Glu Gly Tyr Lys Thr Leu
            420                 425                 430
Val Glu Gly Thr Pro Val Tyr Met His Pro Ser Ser Ala Leu Phe Gly
        435                 440                 445
Lys Pro Ala Glu His Val Ile Tyr His Thr Leu Val Leu Thr Thr Lys
    450                 455                 460
Glu Tyr Met His Cys Thr Thr Ala Ile Glu Pro Lys Trp Leu Val Glu
465                 470                 475                 480
Ala Ala Pro Thr Phe Phe Lys Val Ala Pro Thr Asp Arg Leu Ser Lys
                485                 490                 495
Arg Lys Lys Ala Glu Arg Ile Gln Pro Leu His Asn Arg Phe Ala Gly
            500                 505                 510
Glu Asp Asp Trp Arg Leu Ser Ala Gln Arg Arg Gln Gly Arg Gly Gly
        515                 520                 525
Gly Gly Gly Thr Trp Gly
    530
```

<210> 37852
<211> 558
<212> PRT
<213> A.fumigatus

```
<400> 37852
Asn Leu Val Val Gln Gly Ala Asn Met Val Ser Arg Asp Asp Lys Tyr
1               5                   10                  15
Gly Asn Gly Arg Ser Glu Arg Arg Arg Pro Arg Asp Arg Asp Glu Asp
            20                  25                  30
Asp Asp Tyr Phe Arg Lys Leu Pro Pro Val Glu Leu Asp Glu Gln Pro
        35                  40                  45
Ile Leu Tyr Lys Ile Tyr Asp Gly Arg Val Thr Gly Val Lys Asp Phe
    50                  55                  60
Gly Ala Phe Val Asn Leu Leu Gly Val Lys Gly Lys Val Asp Gly Leu
65                  70                  75                  80
Val His Val Ser Ala Met Gln Glu Gly Ala Arg Val Asn His Pro Ser
                85                  90                  95
Asp Leu Val Ser Arg Gly Gln Pro Val Lys Val Lys Val Ile Ser Ile
            100                 105                 110
Gln Gly Ser Arg Ile Gly Leu Ser Met Lys Glu Val Asp Gln Val Thr
        115                 120                 125
Gly Leu Asp Leu Val Pro Gln Lys Arg Leu Ala Ser Gly Ala Asn Met
    130                 135                 140
Glu Arg Leu Glu Gly Val Ser Gly Lys Asp Arg Tyr Gly Asn Leu Ser
145                 150                 155                 160
Ser Glu Val Pro Val Ile Glu Asp Ser Asn Gly Lys Pro Met Arg Asn
                165                 170                 175
Arg Lys Arg Leu Thr Ser Pro Glu Arg Trp Glu Ile Lys Gln Leu Ile
            180                 185                 190
Ala Ser Gly Ala Val Ser Ala Ala Asp Tyr Pro Asp Leu Asp Glu Glu
        195                 200                 205
Tyr His Ala Thr Leu Thr Gly Glu Gly Thr Phe Glu Glu Glu Glu Asp
    210                 215                 220
Ile Asp Ile Glu Val Arg Asp Glu Glu Pro Pro Phe Leu Ala Gly Gln
225                 230                 235                 240
Thr Lys Met Ser Leu Glu Leu Ser Pro Ile Arg Val Val Lys Ala Pro
                245                 250                 255
Asp Gly Ser Leu Asn Arg Ala Ala Met Ala Gly Thr Asn Leu Ala Lys
```

```
            260                 265                 270
Glu Arg Arg Glu Leu Arg Gln Gln Glu Ala Gln Asp Lys Ala Ala Glu
        275                 280                 285
Gln Ala Ala Glu Ile Asp Leu Ser Ala Gln Trp Gln Asp Pro Met Ala
    290                 295                 300
Ala Pro Asp Gln Arg Lys Ile Ala Ala Asp Leu Arg Ser Ala Gln Pro
305                 310                 315                 320
Lys Ser Asp Asp Ala Val Pro Gly Val Glu Lys Ile Thr Met Gly Lys
                325                 330                 335
Asn Gln Ser Phe Gly Lys Arg Thr Asn Met Ser Ile Lys Gln Gln Gly
            340                 345                 350
Glu Ser Leu Pro Val Phe Lys Phe Arg Gln Gln Leu Leu Asp Ala Val
        355                 360                 365
Arg Asp Asn Gln Leu Val Ile Val Val Gly Asn Thr Gly Ser Gly Lys
    370                 375                 380
Thr Thr Gln Val Thr Gln Tyr Leu Ala Glu Ala Gly Tyr Ala Asn Asn
385                 390                 395                 400
Gly Met Ile Gly Cys Thr Gln Pro Arg Arg Val Ala Ala Met Ser Val
                405                 410                 415
Ala Thr Arg Val Ala Glu Glu Val Gly Cys Arg Leu Gly Ala Glu Val
            420                 425                 430
Gly Tyr Thr Ile Arg Phe Glu Asp Cys Thr Ser Pro Glu Thr Lys Ile
        435                 440                 445
Lys Tyr Met Thr Asp Gly Met Leu Gln Arg Glu Val Leu Leu Asp Pro
    450                 455                 460
Asp Leu Lys Arg Tyr Ser Leu Ile Arg Ser Asp Glu Ala His Glu Arg
465                 470                 475                 480
Thr Ile Ala Thr Asp Val Leu Phe Gly Leu Leu Lys Lys Thr Ile Lys
                485                 490                 495
Ser Arg Pro Asp Leu Arg Leu Ile Val Thr Ser Ala Thr Leu Asp Ala
            500                 505                 510
Glu Lys Phe Ser Glu Tyr Phe Asn Lys Cys Pro Ile Phe Ser Ile Pro
        515                 520                 525
Gly Arg Thr Tyr Pro Val Glu Ile Met Tyr Ser Lys Glu Pro Glu Pro
    530                 535                 540
Asp Tyr Leu Asp Ala Val Leu Ile Thr Val Lys Gln Ile His
545                 550                 555
```

<210> 37853
<211> 305
<212> PRT
<213> A.fumigatus

<400> 37853

```
Ala Ala Ala Pro Leu Ser Lys Asp Ser Thr Phe His Asn Leu Thr Thr
1               5                   10                  15
Met Ala Ala Asn Gly Lys Val Val Ser Glu Met Ile Ala Trp Ile Lys
            20                  25                  30
Ser Gln Lys Leu Ile Ala Pro Arg Met Lys Tyr Ala Pro Thr Phe Tyr
        35                  40                  45
Arg Asn Leu Glu Glu Ala Leu Asp Val Arg Arg Ser Thr Gln Ser Leu
    50                  55                  60
Met Thr Arg Gly Gln Ser Thr Trp Lys Thr Gly Asp Ala Ile Asp Phe
65                  70                  75                  80
Cys Ser Asn Asp Leu Leu Ser Leu Gly Leu Thr Gly Glu Leu Arg Arg
                85                  90                  95
```

```
Glu Phe Leu Ala Glu Leu Ala Arg His Pro Asp Phe Ser Leu His Ser
                100                 105                 110
Gly Gly Ser Arg Val Met Gly Gly Asn Tyr Asp Tyr Ile Glu Ala Val
        115                 120                 125
Glu Gln Glu Ile Ala Asp Phe Leu Gly Ala Glu Thr Ala Leu Met Phe
    130                 135                 140
Asn Ser Gly Ser Asn Gly Asn Ile Ala Ile Tyr Thr Ala Ile Pro Arg
145                 150                 155                 160
Pro Gly Asp Ala Ile Val Tyr Asp Glu Leu Val His Phe Ser Thr His
                165                 170                 175
Thr Gly Met Ala Ala Ser Leu Ala Thr Thr Lys Val Ala Phe Arg His
            180                 185                 190
Asn Asp Leu Asp Ala Phe Arg Glu Ala Met Ser Ser Thr Met Asp Ser
        195                 200                 205
His Pro Met Leu Gln Asp Gly Ser Arg Ser Ile Leu Val Ser Val Glu
    210                 215                 220
Ser Val Tyr Ser Met Asp Gly Asp Val Cys Pro Leu Val Glu Met Leu
225                 230                 235                 240
Glu Ile Ala Arg Glu Ile Cys Pro Lys Gly Asn Phe Ala Phe Ile Ala
                245                 250                 255
Asp Glu Ala His Ala Thr Gly Val Val Gly Pro Arg Gly Val Gly Leu
            260                 265                 270
Val Lys Leu Leu Gly Leu Glu Asn Glu Val Ala Ile Arg Leu Asn Thr
        275                 280                 285
Cys Gly Lys Ala Leu Ala Cys Thr Gly Cys Lys Asn Gln Ser Pro Arg
    290                 295                 300
Gln
305
```

<210> 37854
<211> 552
<212> PRT
<213> A.fumigatus

```
<400> 37854
Lys Glu Ala Cys Ala Ala Ile Ser Arg Gly Asp Cys Gly Ser Ala Met
1               5                   10                  15
Val Gly Gly Val Asn Leu Ile Leu Ala Pro Gly Met Ser Met Ala Met
            20                  25                  30
Gln Glu Gln Gly Val Leu Tyr Ser Asp Gly Ser Cys Lys Thr Phe Ser
        35                  40                  45
Ala Asp Ala Asn Gly Tyr Ala Arg Gly Glu Ala Val Thr Ala Ile Phe
    50                  55                  60
Ile Lys Pro Leu Ala Asp Ala Leu Arg Asp Gly Asn Pro Ile Arg Ala
65                  70                  75                  80
Val Val Arg Ala Thr Ser His Asn Ala Asp Gly Lys Thr Pro Thr Leu
                85                  90                  95
Ser Gln Pro Ser Thr Asp Ala Gln Glu Ala Leu Met Arg Arg Ala Tyr
            100                 105                 110
Glu Leu Gly Gly Ile Thr Asp Tyr Ala Glu Thr Ala Met Val Glu Cys
        115                 120                 125
His Gly Thr Gly Thr Pro Thr Gly Asp Pro Ile Glu Ala Ala Ala Val
    130                 135                 140
Ala Arg Val Phe Gly Asp Lys Gly Val Tyr Ile Gly Ser Val Lys Pro
145                 150                 155                 160
Asn Leu Gly His Thr Glu Ala Ala Ser Gly Leu Val Ser Leu Leu Lys
```

```
                165                 170                 175
Met Val Lys Ala Leu Glu His Arg Val Ile Pro Pro Asn Ile Lys Phe
            180                 185                 190
Thr Ser Pro Asn Pro Asn Ile Pro Phe Ala Glu Gly Lys Leu Thr Val
        195                 200                 205
Pro Thr Asp Pro Leu Pro Trp Pro Lys Asp Arg Leu Glu Arg Val Ser
    210                 215                 220
Val Asn Ser Phe Gly Ile Gly Gly Ala Asn Ala His Val Ile Leu Glu
225                 230                 235                 240
Ser Ala Ala Thr Tyr Asn Val Pro Val Ala Val His Glu Thr Pro Glu
                245                 250                 255
Thr Pro Gln Leu Leu Leu Phe Thr Ala Asn Ser Ser Lys Ser Ile Thr
            260                 265                 270
Arg Met Ile Asp Gly Tyr Lys Ala Trp Val Glu Gln Asn Pro Asp Lys
        275                 280                 285
Val Ser Asp Leu Ala Tyr Thr Leu Ala Arg Arg Arg Glu His Leu Pro
    290                 295                 300
His Arg Ala Phe Ala Ile Phe Arg Asn Gly Val Leu Glu Ser Val Ser
305                 310                 315                 320
Gln Pro Ala Asn Ser Lys Ala Ala Lys Pro Pro Ser Val Val Met Val
                325                 330                 335
Phe Thr Gly Gln Gly Ala Gln Trp Pro Gln Met Gly Arg Asp Leu Leu
            340                 345                 350
Arg Ser Asn Asp Val Phe Arg Ser Ser Ile Arg Leu Leu Asp Gln His
        355                 360                 365
Leu Gln Thr Ile Ala Gly Glu Lys Pro Gln Tyr Ser Ile Glu Glu Glu
    370                 375                 380
Leu Lys Lys Pro Ala Lys Lys Ser Arg Leu Ser Leu Ala Glu Phe Ser
385                 390                 395                 400
Gln Pro Leu Cys Thr Ala Val Gln Ile Ala Leu Val Asp Thr Leu Ala
                405                 410                 415
Ser Ala Gly Ile His Pro Asp Ala Val Val Gly His Ser Ser Gly Glu
            420                 425                 430
Ile Ala Ala Ala Tyr Ala Val Gly Ala Leu Ser Ala Gly Glu Ala Ile
        435                 440                 445
Thr Ala Ala His His Arg Gly Ala Val Thr Ser Arg Gln Lys Arg Val
    450                 455                 460
Gly Thr Met Ala Ala Ile Gly Met Ser Trp Ala Glu Thr Glu Lys Tyr
465                 470                 475                 480
Leu Val Pro Asn Val Thr Ile Ala Cys Asp Asn Ser Pro Arg Ser Val
                485                 490                 495
Thr Ile Ser Gly Asp Val Asp Ala Val Lys Ser Val Val Ala Ala Ile
            500                 505                 510
Lys Glu Ala Gln Pro Gln Met Leu Ala Arg Leu Leu Gln Val Asp Lys
        515                 520                 525
Ala Tyr His Ser Tyr His Met Lys Glu Ile Gly Glu Asp Tyr Gln Ser
    530                 535                 540
Leu Asp Pro Arg Phe Ser Pro Val
545                 550
```

<210> 37855
<211> 232
<212> PRT
<213> A.fumigatus

<400> 37855

```
Asn Gln Asn Ala Glu Met Ile Arg Gln Val Thr Asp Cys Glu Ala Ser
1               5                  10                  15
Thr Phe Tyr Val Glu Phe Thr Ser Met Thr Met Asp Glu Ser Thr Gly
            20                  25                  30
Thr Asn Gly His Gly Val Thr Met Gly Ser Asn Thr Thr Asn Gly Ala
        35                  40                  45
Thr Pro Asn Gly Val Tyr Ala Asn Gly Thr Asn Gly Thr Leu Ala His
    50                  55                  60
Gly Val Leu Arg Gly Ala Gln Val Pro Ile Ala Ile Cys Gly Met Ala
65                  70                  75                  80
Cys Arg Leu Pro Gly Gly Leu Thr Thr Pro Asp Glu Leu Trp Asp Phe
                85                  90                  95
Leu Leu Ala Lys Lys Asp Ala Arg Cys Arg Val Pro His Ser Arg Tyr
            100                 105                 110
Asp Ile Asp Ser Tyr Tyr Ser Asp Thr Lys Lys Pro Gly Thr Val Ser
        115                 120                 125
Thr Glu Tyr Gly Tyr Phe Leu Asp Glu Ser Val Asp Val Gly Ala Leu
    130                 135                 140
Asp Thr Ser Phe Phe Ser Met Thr Arg Thr Glu Val Glu Arg Ala Asp
145                 150                 155                 160
Pro Gln Gln Arg Leu Met Leu Glu Val Ala Arg Glu Ala Phe Glu Asp
                165                 170                 175
Ala Gly Val Thr His Trp Arg Gly Lys Thr Ile Gly Thr Tyr Ile Gly
            180                 185                 190
Asn Phe Gly Glu Asp Trp Leu Glu Met Phe Gly Lys Glu Thr Gln Pro
        195                 200                 205
Trp Gly Ile His Arg Gln Phe Pro Phe Lys Glu Asn Phe Val Val Gly
    210                 215                 220
Glu Ser Gly Ser Arg Tyr Gln Phe
225                 230
```

<210> 37856
<211> 76
<212> PRT
<213> A.fumigatus

```
<400> 37856
Pro Arg Pro His Ala Ile Phe Gln Leu Thr Asn Leu Pro Asn Glu Ile
1               5                  10                  15
Phe Ala Asp Leu His Tyr Ala Ser Arg Leu Lys Gly Gly Val Asn His
            20                  25                  30
Thr Tyr Ile Ile Arg Arg Asp Arg Val Leu Arg Arg Leu Leu Cys Ser
        35                  40                  45
Gly Thr Asp Ile Thr Tyr Trp Leu Arg Gly Lys Val Lys Gly Gln Met
    50                  55                  60
Leu Leu Cys Tyr Lys Pro Gly Ala Asn Pro Arg Ser
65                  70                  75
```

<210> 37857
<211> 68
<212> PRT
<213> A.fumigatus

```
<400> 37857
Ile Cys Trp Gln Asn Ser Val Ile Phe Leu Asn Leu His Lys Cys Thr
1               5                  10                  15
```

```
Gln Pro Glu Lys Lys Leu Asp Asp Tyr Val Thr Val Pro Phe Phe Tyr
            20                  25                  30
Ile Val Tyr Asp Leu Arg Gly Leu Ala Val Asn Ile His Leu Ile Thr
        35                  40                  45
Arg Asn Asp Asn Ile Ile Ala Ile Ser Ile Ala Val Thr Tyr Asn Ala
    50                  55                  60
Asp Val Ser Ala
65
```

<210> 37858
<211> 281
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (269)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37858

```
Pro Thr Leu Ser Ser Tyr Arg His Gly Arg Pro Pro Leu Ser Lys Glu
1               5                   10                  15
Ala Leu Leu Ala Ser Ala Asn Phe Thr Leu Ser Leu Leu Pro Ala Arg
            20                  25                  30
Leu Ala Ser Arg Ile Gln Ala Leu Arg Asn Leu Pro Phe Ile Val Val
        35                  40                  45
Ser Asn Pro His Ile Ser Lys Ile Tyr Asn Asn Tyr Val His Ser Leu
    50                  55                  60
Ser Thr Leu Leu Pro Tyr Gln Gln Arg Lys Val Thr Thr Leu Glu Glu
65                  70                  75                  80
Glu Asn Lys Phe Ala Asp Val Leu Ala Asp Leu Val His Thr His Ser
                85                  90                  95
Asn Thr Ile Pro Ile Leu Ala Arg Gly Phe Leu Glu Cys Arg Lys Tyr
            100                 105                 110
Ile Ser Ala Ala Asp Val Thr Arg Phe Leu Asp Thr His Leu Arg Ala
        115                 120                 125
Arg Ile Gly Thr Arg Leu Ile Ala Glu Gln His Leu Ala Leu His Phe
    130                 135                 140
Ala Ser Gln Pro Val Ser Asp Val Gly Ser Arg Thr Glu Lys Ser Ser
145                 150                 155                 160
Glu Asn Thr Val Pro Ser Asn Tyr Ile Gly Val Ile Asp Thr Ala Leu
                165                 170                 175
Gln Pro Ala Arg Ile Val Lys Val Cys Glu Asp Phe Val Gly Glu Ile
            180                 185                 190
Cys Glu Leu Lys Tyr Gly Val Arg Pro Arg Leu Lys Ile Gly Gly Gln
        195                 200                 205
Ala Asp Ala Thr Phe Ala His Val Pro Val His Val Glu Tyr Ile Ile
    210                 215                 220
Thr Glu Leu Leu Lys Asn Ala Phe Arg Ala Val Ile Glu Ser Gly Asn
225                 230                 235                 240
Glu Arg Glu Pro Ile Glu Val Thr Ile Ala Ala Ala Pro Asp Val Pro
                245                 250                 255
Thr His Gln Val His Asn Val Leu Gly Ile Lys Ser Xaa Ala Ser Gly
            260                 265                 270
Ile Tyr Pro Asp Ala Asp Val Trp Leu
        275                 280
```

<210> 37859
<211> 261
<212> PRT
<213> A.fumigatus

<400> 37859
Gln Arg Phe Ser Ala Ser Thr Ser Ile Ile Met Ser Thr Ser Arg Arg
1 5 10 15
Pro Pro Pro Ala Tyr Thr Ala Ala Lys Asp Ser Ala Val Tyr Gly Thr
20 25 30
Ser Gln Val Tyr Arg Lys Ile Ser Glu Ser Ala Ser Ser Glu Ser Gly
35 40 45
Arg Ile Leu Glu Thr Ser Phe Thr Ile Arg Pro Cys Ser Gly Gln Ala
50 55 60
Trp Val Val Pro Ala Gly His Ile Cys Arg Leu Thr Thr Pro Lys Gly
65 70 75 80
Pro Gln Val Gly Asp Leu Asn Ile Trp Asn Ala Asn Asn Pro Arg Glu
85 90 95
Arg Leu Trp Ala Ala Arg Thr Arg Gln Ile His Ala Ser His Val Ser
100 105 110
Val Gly Asp Arg Leu Trp Ser Asn Leu Pro Tyr Leu Arg Pro Leu Val
115 120 125
Thr Ile Thr Gly Asp Ser Leu Asn Gly Gly Gln Leu His Glu Val Leu
130 135 140
Glu Val Asn Gly Gln Arg Lys Glu Gly Val Gly Phe Gly Thr Ser Lys
145 150 155 160
Trp Gly Gly Arg Val His Asp Leu Leu Gly Thr Arg Cys Asp Pro Tyr
165 170 175
Val Asn Leu Leu Met Gly Gly Glu Thr Phe Asp Phe His Cys His Ser
180 185 190
Asn Leu Thr Arg Ala Val Met Pro Tyr Gly Leu Thr Glu Leu Asp Val
195 200 205
His Asp Val Leu Asn Val Phe Gln Val Thr Gly Leu Asp Glu Gln Gly
210 215 220
Lys Tyr Phe Met Glu Thr Ser Pro Ala Lys Pro Gly Glu Tyr Phe Glu
225 230 235 240
Phe Phe Ala Glu Val Asp Val Leu Cys Ala Leu Ser Ala Cys Pro Gly
245 250 255
Gly Met Val Pro Cys
260

<210> 37860
<211> 324
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (295)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37860
Ile Ile Ala Pro Gly Ser Gln Val Thr Leu Ala Gln Leu Gly Leu Pro
1 5 10 15
Glu Ser Phe Thr Pro Ala Arg Phe Arg Phe Pro Thr Arg Met Phe Pro

```
            20                  25                  30
Gly Glu Lys Lys Gly Glu Tyr Glu Pro Tyr Lys Ile His Glu Lys Arg
        35                  40                  45
Arg Asp Val Lys Pro Ser Asn Gly Ser Asp Ala Pro Lys Glu Asp Val
    50                  55                  60
Glu Met Lys Asp Ala Glu Thr Ser Ala Pro Glu Gly Ala Ala Asp Thr
65                  70                  75                  80
Val Thr Asp Glu Thr Pro Gln Thr Thr Glu Thr Gly Gly Gln Pro Glu
                85                  90                  95
Asn Gly Glu Pro His Glu Asn Asn Gly Glu Ala Val Gln Glu Thr Thr
            100                 105                 110
Gln Glu Val Phe Tyr Glu Glu Asp Val Thr Ser Asp Glu Gly Ala Ile
        115                 120                 125
Tyr Pro Ile Glu Asn Gly Arg Ile Val Asp Trp Pro Ala Phe Phe Ala
    130                 135                 140
Leu Leu Thr His Val Tyr Asn Thr Leu Ser Pro Pro Phe His Thr Pro
145                 150                 155                 160
Ile Met Leu Ile Ala Glu Pro Val Trp Ser Ala Arg Asp Arg Glu Ala
                165                 170                 175
Ile Thr Gln Phe Val Phe Glu Lys Phe Lys Thr Pro Ala Phe Cys Leu
            180                 185                 190
Met Asp Ser Ala Leu Ala Val Cys Tyr Gly Tyr Gly Thr Ser Thr Ala
        195                 200                 205
Thr Val Val Asp Val Gly Lys Gly Asn Val Asp Val Thr Ala Val Thr
    210                 215                 220
Asp Phe Leu Val Asn Glu His Gly Arg Ser Ile Ala Leu Glu Gly Cys
225                 230                 235                 240
Gly Gly Tyr Tyr Met Thr Glu Arg Leu Leu Glu Leu Leu Glu Pro Thr
                245                 250                 255
Gly Phe Thr Arg Glu Met Cys Glu Gln Leu Lys Arg Ser Asn Ile Thr
            260                 265                 270
Glu Ile Leu Pro Pro Gly Thr Pro Ile Pro Gly Thr Ala Glu Thr Ala
        275                 280                 285
Gln Gln Gly Thr His Pro Xaa Ala Ser Ala Ser Thr Gly Ala Gln Glu
    290                 295                 300
Arg Val Gly Val Asn Gly Ser Val Pro Arg Gly Pro Arg Gln Gln His
305                 310                 315                 320
Ser Ser Arg Gly
```

<210> 37861
<211> 90
<212> PRT
<213> A.fumigatus

<400> 37861

```
Glu Arg Phe Gln Val Val Ser Leu Ser Ile Ser Tyr Glu Leu Ser Gly
1               5                   10                  15
Lys Tyr Ile Leu Ile Phe Cys Tyr Phe Ser His Val Gln Ser Glu Ser
            20                  25                  30
His Val Arg Gln Met Leu Leu Ile Gly Glu Asp Pro Lys Lys His Ile
        35                  40                  45
Glu Glu Phe Ser Arg Glu Phe Leu Asn Asn Phe Val Asn Leu Leu Lys
    50                  55                  60
Thr Thr His Gly Glu Lys Lys Val His Val Asn Gln Phe Tyr Gln Gln
65                  70                  75                  80
```

```
Val Ile Ala Asp Lys Glu Val Ser Leu Ala
                85                  90

<210> 37862
<211> 131
<212> PRT
<213> A.fumigatus

<400> 37862
Arg Asn Thr Arg Ile Leu Arg Glu Met Glu Glu Gln Ala Arg Pro Glu
1               5                  10                  15
Trp Glu Lys Lys Lys Thr Val Met Ser Leu Asp Ile Lys Gly Gly Arg
            20                  25                  30
Val Thr Arg Val Tyr Gln Ser Ala Ala Pro Ala Gln Ser Ser Ser Ala
        35                  40                  45
Ala Glu Glu Lys Glu Glu Asp Val Glu Asp Val Ser Tyr Glu Lys Ser
    50                  55                  60
Lys Pro Thr Gly Gly Glu Ala Phe Ser Arg Asn Pro Leu Leu Ala Ala
65                  70                  75                  80
Gly Gly Leu Leu Arg Pro Val Trp Lys Ala Ala Asp Asp Lys Gln Glu
                85                  90                  95
Arg Thr Ala Thr Lys Glu Arg Lys Gln Thr Trp Arg Arg Val Gln Asp
            100                 105                 110
Asp Asn Asp Asp Asn Glu Gln Trp Ile Leu Asp Gly Gly Leu His Gly
        115                 120                 125
Tyr Thr Thr
    130

<210> 37863
<211> 238
<212> PRT
<213> A.fumigatus

<400> 37863
Arg Glu Val Lys Lys Lys Lys Cys Gly Leu Trp Met Pro Leu Asp Thr
1               5                  10                  15
Trp His Leu Asp Gln Ile Leu Ile His Lys Leu Thr Asn Asp Arg Trp
            20                  25                  30
Asn Phe Ile Met Asn Ser Arg Val Glu Ala Asn Glu Arg Ala Lys Glu
        35                  40                  45
Arg Thr Gln Ala Gly His Asp Ala Lys Lys Asp Phe Phe Tyr Tyr Leu
    50                  55                  60
Leu Asn Ala Lys Asp Pro Glu Thr Gly Lys Gly Leu Thr Thr Pro Glu
65                  70                  75                  80
Leu Trp Gly Glu Ala Asn Val Leu Met Ile Ala Gly Ser Asp Thr Thr
                85                  90                  95
Ser Thr Thr Met Ser Ala Thr Ile Phe Tyr Leu Val Arg Asn Pro Arg
            100                 105                 110
Ala Met Glu Leu Leu Arg Lys Glu Ile Arg Glu Asn Phe Ser Ser Val
        115                 120                 125
Glu Glu Ile Val Thr Gly Pro Lys Leu Asn Glu Leu Val Tyr Leu Lys
    130                 135                 140
Ala Cys Ile Asp Glu Ala Met Arg Leu Ala Pro Ala Val Pro Gly Ala
145                 150                 155                 160
Pro Pro Arg Glu Val Met Glu Gly Gly Ala Met Ile Asp Gly Val Phe
                165                 170                 175
```

```
Leu Pro Glu Gly Thr Asp Cys Gly Thr Pro Thr Tyr Ser Ile His Arg
            180                 185                 190
Gln Pro Glu Tyr Tyr Arg Glu Pro Glu Val Tyr Ile Pro Glu Arg Trp
        195                 200                 205
Ile Glu Gly Ala Thr Cys Gln Ala Gly Ser Glu Ser Trp Thr Thr Ser
    210                 215                 220
Lys Glu Ser Val Glu Leu Ala Pro Glu Gly Leu Leu Pro Leu
225                 230                 235
```

<210> 37864
<211> 218
<212> PRT
<213> A.fumigatus

<400> 37864

```
His Ser Gly His Lys Thr Leu Ala Tyr Val Thr Tyr Asn Arg Phe Phe
1               5                   10                  15
His Pro Leu Arg Ser Ile Pro Gly Pro Phe Leu Ala Ser Ile Thr Pro
            20                  25                  30
Trp Val Gln Leu Tyr His Gly Leu Lys Gly Asp Arg His Leu Trp Leu
        35                  40                  45
His Arg Leu His Glu Lys Tyr Gly Ser His Val Arg Ala Ala Pro Asn
    50                  55                  60
Phe Val Ser Ile Asn Thr Asp Arg Gly Leu His Asp Ile Tyr Gly His
65                  70                  75                  80
Gly Lys Arg Leu Arg Lys Ala Asn Phe Tyr Asn Ala Phe Pro Ala Ile
                85                  90                  95
Lys Gly Val Tyr Asn Thr His Asn Ala Ile Asp Lys Ala Met His Gly
            100                 105                 110
Arg Lys Arg Arg Val Leu Ser Gln Ala Phe Ser Asp Gln Ala Leu Lys
        115                 120                 125
Ser Met Glu Asp Val Met Leu Leu His Val Arg Gln Leu Cys Glu Ile
    130                 135                 140
Leu Thr Gly Gly Leu Asp Gly Pro Lys Gly Glu Lys Ser Ala Thr Ala
145                 150                 155                 160
Val Phe Asn Leu Gly Asp Trp Phe Ser Tyr Leu Thr Tyr Asp Val Met
                165                 170                 175
Gly Glu Leu Cys Phe Gly Lys Ser Phe Asp Met Leu Ile Ser Ser Gly
            180                 185                 190
Arg Arg Lys Leu Ile Glu Leu Val Asp Arg Ala Ala Asn Arg His Tyr
        195                 200                 205
Val Val Trp Pro Ser Phe Ser Pro Pro Pro
    210                 215
```

<210> 37865
<211> 144
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (110)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37865

```
Ser Met Gly Phe Ser Cys Pro Arg Ala Arg Thr Ala Gly Pro Arg Arg
```

```
1               5                   10                  15
Thr Arg Ser Thr Gly Asn Pro Ser Thr Thr Ala Ser Pro Arg Ser Ile
            20                  25                  30
Ser Pro Ser Asp Gly Ser Arg Ala Arg Arg Ala Arg Gln Ala Ala Ser
        35                  40                  45
His Gly Arg Pro Ala Arg Ser Pro Leu Ser Trp Arg Arg Arg Ala Phe
    50                  55                  60
Cys Pro Phe Ser Ile Gly Pro Arg Gly Cys Ile Gly Lys Ser Met Ala
65                  70                  75                  80
Phe Met Glu Met Arg Leu Thr Ile Ala Arg Leu Met Phe Leu Phe Asp
                85                  90                  95
Leu Glu Leu Ala Asp Pro Gln Gly Glu Asp Glu Lys Gly Xaa Leu Ala
            100                 105                 110
Leu Val Gly Thr Ile Ser Pro Thr Ala Ser Tyr Gly Pro Asn Val Val
        115                 120                 125
Gly Pro Glu Glu Lys Phe Gly Ile Ser Gly Phe Gly Glu Asn Pro Gly
    130                 135                 140
```

<210> 37866
<211> 226
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (81),(139),(182),(194)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37866

```
Tyr Ile Leu Ala Pro Pro Pro Gly Met Ala Ala Pro Gly Thr Ala Pro
1               5                   10                  15
Pro Pro Gly Met Gln Gln Ala Asn Ile Pro Gln Pro Gly Arg Pro Ala
            20                  25                  30
Gly Phe Pro Pro Asn Phe Gln Pro Pro Pro Asn Met Pro Asn Ile Asn
        35                  40                  45
Phe Ser Ala Pro Val Ile Arg Leu Gly Thr Ser Gly Pro Ser Lys Ser
    50                  55                  60
Ala Thr Pro Asp Thr Ser Lys Glu Arg Glu Ala Pro Gly Arg Arg Ala
65                  70                  75                  80
Xaa Leu Gly Ser Thr Ser Leu Glu Ser Gln Arg Gln Asn Val Arg Asp
                85                  90                  95
Ala Met Met Gln Leu Gln Pro Pro Thr Arg Glu Glu Ile Val Arg Thr
            100                 105                 110
Ile Phe Val Gly Gly Ile Tyr Arg Gly Arg Arg Gly Asp Glu Gly Ile
        115                 120                 125
Glu Lys Ile Leu Arg Ser Ala Gly Asn Leu Xaa Arg Trp Ile Arg Ala
    130                 135                 140
Thr Asp Ala Asp Asp Lys Pro Leu Gln Val Gly Phe Ala Glu Tyr Glu
145                 150                 155                 160
Asp Pro Glu Ser Leu Arg Thr Ala Val Glu Ile Leu Lys Gly Arg Glu
                165                 170                 175
Val Pro Val Lys Arg Xaa Thr Pro Ser Glu Glu Val Gly Gln Lys Glu
            180                 185                 190
Arg Xaa Trp Lys Arg Ala His Tyr Trp Phe Val Tyr Cys Pro Ser Gly
        195                 200                 205
Ala Phe Tyr Arg Ser Asp His Val Ala Ile Arg Trp Ser Leu Thr Thr
```

210 215 220
Val Pro
225

<210> 37867
<211> 83
<212> PRT
<213> A.fumigatus

<400> 37867
Arg Val Asp Gln Thr Ser Leu Asp Lys Thr Gly Ser Asp Ala Met Asn
1 5 10 15
Ala Ala Gly Asp Tyr Ser Ala Ala Tyr Cys Ile Ile Asn Thr Asp Ser
20 25 30
Ser Tyr Ala Gly His Gly Met Val Arg Ile Lys Pro Leu Val Phe Leu
35 40 45
Leu Ala Leu Ser Lys Glu Arg Thr Asn Trp Asp Arg Asp Arg Pro Ser
50 55 60
Pro Leu Ala Val Glu Thr Arg Leu Ser Ala Pro Pro Ser Ala Phe Ser
65 70 75 80
Leu Pro Trp

<210> 37868
<211> 60
<212> PRT
<213> A.fumigatus

<400> 37868
Leu Asn Val Ile His Asp Gly Leu Asn Ile Val Gln Ser Pro Leu Asp
1 5 10 15
Arg Leu Asp Thr Pro Lys Val Glu Leu Gln Phe Arg Gly Gly Leu Val
20 25 30
Asn Ile Asn Cys Asn Asp Pro Gly Ile Leu Gly Asn Leu Ala Arg Ser
35 40 45
Arg Arg Gly Glu Val Asp Asn Asn Thr Gln Trp Gln
50 55 60

<210> 37869
<211> 520
<212> PRT
<213> A.fumigatus

<400> 37869
Val Val Val Asp Asp Ser Ser Leu Ser Tyr Leu Glu Gln Tyr Glu Asn
1 5 10 15
Ser Arg Gly Glu Gln Asp Pro Ala Glu Arg Gln Ala Arg Leu Asp Ala
20 25 30
Ala Arg Ser Lys Leu Ala Asn Val Leu Ser Glu Leu Phe His Pro Thr
35 40 45
Ser Pro Thr Arg Lys Glu Asp Ser Ser Ala Ile Asp Arg Glu Gly Asp
50 55 60
Thr Ala Met Lys Asp Ala Glu Gly Ala Asp Gly Thr Ser Ala Glu Val
65 70 75 80
Val Thr Ile Pro Ile Thr Val Glu Asp Glu Leu Ser Asp Ile Pro Pro
85 90 95

```
Glu Met Arg Glu Thr Val Ala Lys Glu Ile Ala Ala Phe Arg Glu Arg
            100                 105                 110
Ser Asn Arg Arg Asp Ile Glu Arg Leu Lys Arg Glu Glu Glu Ile Glu
        115                 120                 125
Ser Met Glu Arg Ala Arg Asn Ala Gly Ser Arg Leu Asn Arg Leu Ala
    130                 135                 140
Ser Pro Pro Pro Ser Ala His Ser Gly Pro Ala Ala Gly Ala Asn Gly
145                 150                 155                 160
Val Pro Leu Gly Pro Arg Asp Arg Gly Met Pro Asn Ala Pro Ser Gly
                165                 170                 175
His Lys Gly Phe Gly Val Gln Ile Pro Lys Asp Tyr Gln Lys Gly Val
            180                 185                 190
Ser Phe Val Asn Gly Gly Ala Ile Asn Gly Ala Thr Val Ile Tyr Asn
        195                 200                 205
Asp Arg Asp Asp Glu Glu Thr Asp Ala Ser Asp Glu Glu Leu Glu Arg
    210                 215                 220
Arg Arg Gln Glu Lys Arg Glu Ala Glu Met Glu Lys Gln Phe Leu Asp
225                 230                 235                 240
Gln Glu Arg Arg Trp Leu Asn Arg Glu Arg Ser Arg Thr Ala Ala Leu
                245                 250                 255
Glu Arg Glu Lys Lys Arg Asp Lys Glu Glu Glu Ala Lys Ala Gln Glu
            260                 265                 270
Ile Arg Asp Glu Ala Asp Arg Arg Tyr Arg Glu Trp Asn Asp Asp Ile
        275                 280                 285
Glu Ala Ser Arg Lys Val Glu Asp Tyr Tyr Ala Asp Arg Gly Ala Trp
    290                 295                 300
Leu Arg Ser Arg Ala Ala Phe Arg Ala Arg Glu Ile Ser Asn Asp Glu
305                 310                 315                 320
Ala Asp Arg Ala Ala Glu Glu Arg Glu Arg Ala Arg Ser Ala Gln Gln
                325                 330                 335
Arg Glu Gln Ala Arg Gly Met Ala Asp Asp Phe Leu Ala Arg Gln Ala
            340                 345                 350
Glu Glu Leu Glu Ala Arg Thr Gln Ala Pro Arg Glu Pro Gln Arg Phe
        355                 360                 365
Lys Leu Ser Leu Gly Ala Ala Ala Gln Lys Ala Gln Ala Ala Thr Thr
    370                 375                 380
Arg Arg Thr Val Ala Glu Val Glu Gly Leu Leu Glu Asp Glu Glu Glu
385                 390                 395                 400
Pro Gln Ala Thr Ala Arg Arg Pro Leu Ile Pro Ile Lys Phe Asp Ser
                405                 410                 415
Ala Thr Glu Ala Ala Gly Leu Ser Asp Glu Glu Arg Ala Gln Ala Ala
            420                 425                 430
Arg Gln Leu Ala Ala Glu Ile Pro Thr Asp Lys Glu Gly Leu Trp Lys
        435                 440                 445
Trp Asp Val Lys Trp Glu Phe Val Asp Glu Ser Val Leu Arg Glu Gln
    450                 455                 460
Leu Lys Pro Val Val Glu Lys Lys Ile Val Glu Tyr Leu Gly Val Gln
465                 470                 475                 480
Glu Gln Met Ser Val Asp Val Val Glu Glu His Val Arg Lys His Gly
                485                 490                 495
His Pro Gln Glu Leu Val Glu Gln Leu Glu Glu Val Arg Ser Ala Lys
            500                 505                 510
Pro Ile Met Asn Pro Gln Gln Ser
        515                 520
```

<210> 37870

<211> 200
<212> PRT
<213> A.fumigatus

<400> 37870
Leu Gly Pro Arg Gln Thr Phe Thr Ile Gly Arg Gly Asn Glu Ile Val
1 5 10 15
Cys Ala Ala Ile Ser Leu Leu Ala Pro Leu Val Val Gly Lys Asp Leu
20 25 30
Asp Glu Leu Thr Ala Asp Trp Gly Lys Thr Trp Arg Tyr Leu Val Ser
35 40 45
Asp Ser Gln Leu Arg Trp Ile Gly Pro Glu Lys Gly Val Ile His Leu
50 55 60
Ala Leu Gly Ala Val Val Asn Ala Leu Trp Asp Leu Trp Ala Lys Thr
65 70 75 80
Leu Asn Lys Pro Val Trp Arg Ile Val Ala Asp Met Thr Pro Glu Gly
85 90 95
Phe Val Arg Cys Ile Asp Phe Arg Tyr Ile Thr Asp Ala Ile Thr Pro
100 105 110
Lys Glu Ala Ile Ala Leu Pro Thr Glu Ile Glu Pro Pro Gln Ser Arg
115 120 125
Ser Val Ser Lys Asp Ala Leu Thr Glu Pro Arg Ala Val Pro Gly Ile
130 135 140
His Tyr Leu Ile Ala Gly Leu Ala Pro Val Ser Pro Lys Glu Lys Pro
145 150 155 160
Ala Leu Pro Leu Pro Glu Arg Asp Ser Cys Ser Leu Lys Gly Phe Gln
165 170 175
Thr Thr Phe Lys Pro Ser Arg Val Trp Arg Pro Ser Phe Gly Thr Arg
180 185 190
Gly Pro Phe Pro Arg Ile Glu Leu
195 200

<210> 37871
<211> 122
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (13),(25),(68)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37871
Arg Thr Val Tyr Lys Pro Val Val Cys Ser Phe Pro Xaa Pro Leu Leu
1 5 10 15
Leu Ser Asn Leu Leu Gly Trp Gly Xaa Ser Leu Asp Arg His Phe Thr
20 25 30
Ser Leu Lys Tyr Phe Tyr Ser Ser Thr Lys Thr Phe Arg Val Leu Val
35 40 45
Leu Cys Glu Ala Asn Leu Gln Trp Leu Ile Ile Gly Ile Arg Ser Ala
50 55 60
Asp Pro Pro Xaa Glu Ile Pro Ser Gly Thr Gln Asn Leu Leu Asp Ala
65 70 75 80
Leu Val Thr Ala Ala Pro Ser Val Asn Thr Pro His Lys Tyr Ser Pro
85 90 95
Tyr Asn Leu Phe Pro Arg Arg Arg Leu Gln Leu His His Arg Ile Ser

```
            100                 105                 110
Tyr Ile Leu Ala Leu Arg Leu Lys Thr Cys
        115                 120

<210> 37872
<211> 353
<212> PRT
<213> A.fumigatus

<400> 37872
His Ser Pro Cys Glu Ile Gln Ala Thr Val Leu Thr Leu His Arg Pro
1               5                   10                  15
Val Asn Ile Gln Leu Val Val Glu Pro Leu Ile Arg Leu Ala Arg His
            20                  25                  30
Leu Glu Leu Asn Arg Ala Lys Gly Val Cys Asn Leu Leu Asp Ala Val
        35                  40                  45
Thr Glu Arg Val Arg Lys Val Val Arg Arg Ile His Leu Pro Leu Ala
    50                  55                  60
Thr Ser Ala Glu Val Ala Leu Leu Val Asp Val Gln Asn Thr Pro Arg
65                  70                  75                  80
Glu Asp Ile Pro His Leu Arg Val Arg Ile Val Gln Ile His Leu His
                85                  90                  95
Thr Gln Arg Ser Leu Ser Arg Leu Val Leu Ala Leu Leu His Ser Phe
            100                 105                 110
Lys Leu Leu Gln Arg Leu Leu Asn Arg Ser Arg Ser Val Arg Ala Arg
        115                 120                 125
Ile Pro Arg Phe Ala Pro Arg Thr Ile Arg Leu Ala Thr Leu Gly Leu
    130                 135                 140
Asp Leu Arg Leu Gly Ala Val Ala His Ile Gly Thr Ile Ser Ser Asp
145                 150                 155                 160
Lys Leu Leu Arg Lys Leu Ile Gln Ser Val Glu Val Val Thr Ser Ile
                165                 170                 175
Ser Asp Pro Asp Arg Leu Val Ser Gln Pro Ala His Asn Ile Leu Asn
            180                 185                 190
Thr Ala Ile Val Tyr Leu Leu Leu Thr Leu Gly Val Arg Val Ile Glu
        195                 200                 205
Ala Gln Asp Ala Phe Ala Ala Met Val Leu Arg Glu Pro Glu Ile Asp
    210                 215                 220
Arg Asn Cys Leu Ala Val Thr Asp Val Gln Glu Ala Val Gly Leu Gly
225                 230                 235                 240
Arg Glu Pro Ser Pro Asp Leu Gly Val Phe Leu Gly Asp Gly Pro Phe
                245                 250                 255
Leu Val Tyr Ile Cys Glu Glu Ala Asp Leu Glu His Gly Val Gly Val
            260                 265                 270
Asp Arg Ala Gln Ile Ser Cys Gly Leu Phe Gly Val Gly Gly Leu Arg
        275                 280                 285
Leu Ala Ala Ser Leu Leu Ala Ile Val Val Ile Val Phe Ala Val Gly
    290                 295                 300
Val Leu Gly Cys Leu Leu Leu Gly Ser Phe Arg Leu Gly Cys Phe Gly
305                 310                 315                 320
Gly Leu Leu Phe Arg Gly Leu Phe Thr Cys Gly Gly Lys Ala Leu Leu
                325                 330                 335
Cys Arg Ser Ser Cys Leu Leu Trp Ser Leu Arg Lys Ser Ser Phe Ser
            340                 345                 350
Cys
```

<210> 37873
<211> 515
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37873
Xaa Arg Phe Asp Leu Val Gln Gln Asp Glu Ser Asn Val Ala Gly His
1 5 10 15
Thr Glu Glu Asn Ser Ser Thr Thr Ala Gly Ser Gln Gln Ser Ser Asp
20 25 30
Asn Glu Ala Gln Lys Ala Lys Glu Thr Pro Gln Thr Ser Pro Val Leu
35 40 45
Gly Pro Ser Asp Lys Leu Lys Pro Asp Glu Ala Val Asp Glu Ser Asn
50 55 60
Lys Glu Gly Gly Ala Asp Leu Gly Val Glu Asp Phe Pro Thr Val Asp
65 70 75 80
Glu Met Leu Ser Arg Ser Gln Asp Gln His Gln Gln Val Thr Val Gly
85 90 95
Arg Val Glu Val Glu Glu Asn Glu Ser Lys Lys Pro Leu Glu Pro Thr
100 105 110
Lys Pro Glu Arg Arg Ala Leu Thr Lys Pro Pro Ile Arg Val Arg Val
115 120 125
Ser Arg Gln Ser Ile Ala Gln Lys Gln Leu Glu Asp Ser Asp Asp Asp
130 135 140
Leu Glu Val Val Thr Asp Pro Ala Lys Cys Arg Arg Ile Ala Ala Phe
145 150 155 160
Glu Asn Leu Pro Ala Lys Lys Met Gln Glu Ser Ala Ser Met Leu Lys
165 170 175
Leu Lys Ala Leu Ala His Leu Thr Ser Pro Thr Arg Arg Ser Lys Thr
180 185 190
Met Asn Thr Ala Glu Leu Ser Ala Met Leu Leu Leu Gln Ala Arg Gln
195 200 205
Gln Ala Ala Lys Glu Arg Gln Glu Arg Ile Gln Glu Leu Arg Ala Lys
210 215 220
Gly Val Ile Val Glu Thr Ala Glu Glu Arg Ala Ala Met Glu Asp Glu
225 230 235 240
Leu Glu Asn Leu Val Glu Lys Ala Arg Gln Glu Ala Asp Ala Ile Ala
245 250 255
Lys Lys Glu Arg Gly Ser Lys Thr Lys Lys Leu Glu Asp Val Asp Asp
260 265 270
Val Asp Asp Glu Glu Asp Glu Asp Phe Glu Leu Ser Gly Ser Asp Gln
275 280 285
Glu Gly Tyr Gly Asp Gly Lys Gly Asp Glu Glu Asp Glu Asp Glu Glu
290 295 300
Asp Asp Glu Glu Asn Glu Gln Gly Phe Val Asp Ser Glu Ala Gly Glu
305 310 315 320
Asp Glu Glu Ser Glu Asp Glu Gln Thr Glu Val Met Ser Ala Asp Glu
325 330 335
Ser Glu Val Pro Ala Val Arg Arg Lys Arg Pro Thr Arg Val Ile Ser
340 345 350

```
Asp Asp Glu Asp Glu Asp Glu Arg Gln Ala Pro Lys Thr Pro Ala Lys
        355                 360                 365
Pro Thr Pro Ser Thr Val Asn Ser Val Glu Arg Pro Gln Phe Pro Gly
    370                 375                 380
Met Thr Ser Asp Gly Leu Thr Met Ser Leu Thr Gln Ala Phe Ala Gly
385                 390                 395                 400
Thr Leu Gly Ala Ser Gln Pro Val Thr Gln Glu Gly Ser Pro Ala Ile
                405                 410                 415
Pro Asp Ser Leu Pro Asp Pro Ala Gln Ile Thr His Asp Arg Arg Asp
            420                 425                 430
Ser Glu Ser Gln Ile Ile Ile Lys Asp Ser Gln Glu Gln Arg Ala Glu
        435                 440                 445
Ser Thr Asp Ile Leu Ala Gly Tyr Thr Gln Pro Glu Ser Arg Val Ser
    450                 455                 460
Glu Ser Pro Ala Pro Arg Ala Met Ser Gln Tyr Ser Gln Ile Pro Asp
465                 470                 475                 480
Pro Thr Gln Asp Ala Gly Phe Val Leu Ser Pro Phe Asp Pro Ser Lys
                485                 490                 495
Arg Ile Pro Arg Gly Pro Pro Gln Phe Asp Tyr Arg Asn Arg Ala Cys
            500                 505                 510
Gly Thr Lys
        515
```

<210> 37874
<211> 132
<212> PRT
<213> A.fumigatus

<400> 37874

```
Ile Pro Gly Thr Thr Thr Pro Val Pro Asp Gly Lys Ser Lys His Leu
1               5                   10                  15
Arg Arg Gly Arg Ala Ala Asn Leu Ser Met Ile Glu Glu Gln Glu Glu
            20                  25                  30
Glu Gly Phe Glu Ile Asp Ala Ser Ala Phe Asp Val Met Lys Lys Ala
        35                  40                  45
Ala Lys Thr Lys Thr His Val Pro Phe Asp Pro Lys Thr Ser Lys Ala
    50                  55                  60
Lys Glu Met Val Glu Asp Ala Ala Glu Glu Ser Asp Asp Glu Tyr Ala
65                  70                  75                  80
Gly Leu Gly Gly Ala Ser Asp Glu Ser Glu Asp Glu Glu Asp Ala Tyr
                85                  90                  95
Asp Arg Gln Met Ile Asn Asp Asn Ser Gly Glu Thr Val Asp Glu Lys
            100                 105                 110
Gln Leu Ala Ala Leu Asn Ala Cys Val Pro Arg Val Asn Cys Pro Lys
        115                 120                 125
Met Phe Ala Asn
    130
```

<210> 37875
<211> 394
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (394)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37875

```
Ser Ser Pro His Trp Asn Ile Arg Phe Leu Pro Thr Met Ala Ser Thr
1               5                  10                  15
Gly Glu Thr Thr Leu Pro Glu Arg Pro Lys Glu Ala Ala Ala Pro Ala
            20                  25                  30
Glu Gln Ser Leu Ala Pro Ala Gly Glu Lys Pro Ser Glu Glu Lys Ser
        35                  40                  45
Ala Lys Ala Pro Lys Pro Lys Ala Pro Lys Gln Lys Ala Pro Lys Asn
    50                  55                  60
Pro Asp Gly Lys Asn Asn Asn Asn Asn Gly Lys Lys Gly Gly Gly Lys
65                  70                  75                  80
Pro Lys Ala Ala Asn Ala Lys Glu Ala Ala Thr Asp Leu Arg Ser Val
                85                  90                  95
Asp Pro Asp Ala Met Phe Lys Val Gly Phe Leu Ala Asp Val Tyr Gln
            100                 105                 110
Glu Arg Pro Ile Ser Glu Lys His Pro Lys Ile Arg Thr Arg Phe Pro
        115                 120                 125
Pro Glu Pro Asn Gly Phe Leu His Ile Gly His Ser Lys Ala Ile Ala
    130                 135                 140
Val Asn Phe Gly Phe Ala Lys Tyr His Gly Gly Glu Cys Ile Leu Arg
145                 150                 155                 160
Phe Asp Asp Thr Asn Pro Glu Gly Glu Glu Glu Ile Tyr Tyr Arg Gly
                165                 170                 175
Ile Glu Asp Ile Val Ser Trp Leu Gly Tyr Lys Pro Val Arg Val Thr
            180                 185                 190
Asn Ala Ser Asp Asn Phe Asp Arg Leu Tyr Glu Leu Ala Lys Glu Leu
        195                 200                 205
Ile Arg Arg Asp Gly Ala Tyr Val Cys His Cys Thr Lys Ala Glu Ile
    210                 215                 220
Lys Ala Gln Arg Gly Glu Ala Asp Gly Ala Arg Gly Lys Ala Arg Tyr
225                 230                 235                 240
Ala Cys Pro His Arg Ser Arg Pro Ile Glu Glu Ser Leu Gln Glu Phe
                245                 250                 255
Glu Ala Met Lys Glu Gly Lys Tyr Lys Ala Gly Glu Ala Ala Leu Arg
            260                 265                 270
Met Lys Met Asp Leu Asp Asp Pro Asn Pro Gln Met Trp Asp Ile Phe
        275                 280                 285
Ala Trp Arg Ile Leu Asp Val Asp Gln Lys Gly His Phe Arg Thr Gly
    290                 295                 300
Gly Gln Trp Lys Met Tyr Pro Thr Tyr Asp Phe Ala His Pro Leu Cys
305                 310                 315                 320
Asp Ser Ile Glu Glu Ile Thr His Ser Leu Cys Thr Val Glu Phe Glu
                325                 330                 335
Met Ser Arg Gln Ser Tyr Glu Trp Leu Asn Asp Lys Leu Asp Val Tyr
            340                 345                 350
Arg Pro Met Gln Arg Glu Tyr Gly Arg Leu Asn Leu Thr Gly Thr Val
        355                 360                 365
Leu Ser Lys Arg Lys Ile Ile Glu Leu Val Lys Lys Val Phe Thr Thr
    370                 375                 380
Gly Leu Glu Gly Thr Ala Arg Ala Gln Xaa
385                 390
```

<210> 37876
<211> 103

<212> PRT
<213> A.fumigatus

<400> 37876
Arg Ser Ser Leu Val Glu Ala Thr Thr Cys Pro Ser Ala Leu Leu Pro
1 5 10 15
Cys Cys Ala Arg Leu Gln Gln Ala Arg Pro Leu Val Leu Arg Arg Pro
20 25 30
Ser Leu Thr His Gln Ser Glu Ser Pro Tyr Pro Leu Leu Glu Arg Leu
35 40 45
Ser Pro Arg Lys Ala Ala Val Asn Tyr Tyr Thr Ala Ala Arg Glu Arg
50 55 60
Glu Arg Glu Arg Glu Ile Arg Ala Lys Asn Arg Ser Gly Gly Ser Asn
65 70 75 80
Ile Thr Ala Leu Leu Asn Lys Tyr Ala Ser Asn Arg Leu Gly Ser Leu
85 90 95
Gly Gly Thr Gly Gln Trp Glu
100

<210> 37877
<211> 372
<212> PRT
<213> A.fumigatus

<400> 37877
Gly Gly Gly Asn Gly Trp Thr Gly Ser Thr Gln Cys Val Ala Gly Ala
1 5 10 15
Cys Cys Ser Ser Ile Asn Asp Trp Tyr Tyr Gln Cys Phe Ser Gly Asn
20 25 30
Cys Met Pro Ser Thr Thr Met Thr Thr Thr Thr Ala Thr His Thr Thr
35 40 45
Ser Thr Ser Thr Ser Gly Ala Thr Gly Ser Leu Pro Thr Ser Phe Arg
50 55 60
Trp Ser Ser Thr Asn Ala Leu Val Gly Pro Lys Asn Asp Gly Arg Asn
65 70 75 80
Leu Ala Gly Ile Lys Asp Pro Ser Ile Ile Glu Val Asp Gly Thr Tyr
85 90 95
His Val Phe Ala Ser Thr Ala Gln Ala Ser Gly Tyr Asn Leu Val Tyr
100 105 110
Phe Asn Phe Thr Asp Phe Asn Gln Ala Gly Asn Ala Pro Phe Phe Tyr
115 120 125
Leu Asp Gln Ser Gly Ile Gly Thr Gly Tyr Arg Ala Ala Pro Gln Val
130 135 140
Phe Tyr Phe Gln Pro His Gln Leu Trp Tyr Leu Ile Phe Gln Asn Gly
145 150 155 160
Asn Ala Ala Tyr Ser Thr Asn Lys Asp Ile Ser Asn Pro Ala Gly Trp
165 170 175
Ser Ala Pro Lys Asn Phe Phe Ser Ser Val Pro Ser Ile Ile Thr Glu
180 185 190
Asn Ile Gly Lys Gly Tyr Trp Val Asp Met Trp Val Ile Cys Asp Ser
195 200 205
Ser Asn Cys Tyr Leu Phe Ser Ser Asp Asp Asn Gly His Leu Tyr Arg
210 215 220
Ser Gln Thr Thr Leu Ser Asn Phe Pro Asn Gly Met Gly Asn Thr Val
225 230 235 240
Ile Ala Leu Ser Asp Ser Asn Pro Asn Asn Leu Phe Glu Ala Ser Asn

```
                245                 250                 255
Val Tyr Arg Val Gly Asn Glu Tyr Leu Leu Leu Val Glu Ala Ile Gly
            260                 265                 270
Ser Asp Gly Asn Arg Tyr Phe Arg Ser Trp Thr Ala Pro Ser Leu Thr
        275                 280                 285
Gly Thr Trp Thr Gly Leu Ala Asn Thr Glu Ala Asn Pro Phe Ala Arg
    290                 295                 300
Ser Asn Asn Val Val Phe Ser Gly Thr Ala Trp Thr Lys Ser Ile Ser
305                 310                 315                 320
His Gly Glu Met Val Arg Ser Gln Val Asp Gln Thr Met Thr Ile Ser
                325                 330                 335
Pro Cys Lys Leu Arg Tyr Leu Tyr Gln Gly Leu Ser Pro Thr Ala Thr
            340                 345                 350
Gly Asp Tyr Asn Ser Leu Pro Trp Arg Leu Ala Leu Leu Thr Gln Thr
        355                 360                 365
Asn Ser Ala Cys
    370
```

<210> 37878
<211> 330
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (236)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37878

```
Cys Ser Ala His Val Asn Trp Leu Thr Arg Ser Asp Leu Arg Leu Lys
1               5                   10                  15
Leu Ile Cys Gln Met Lys Gly Phe Ile Arg Ala Leu Phe Phe Met Gly
            20                  25                  30
Ala Ala Leu Gly Ser Asn Phe Asn Gln Pro Val Leu Trp Glu Asp Leu
        35                  40                  45
Ala Asp Leu Asp Ile Phe Arg Val Asp Asp Thr Phe Tyr Tyr Ser Ala
    50                  55                  60
Ser Thr Met His Tyr Ser Pro Gly Ala Pro Ile Leu Gln Ser Tyr Asp
65                  70                  75                  80
Leu Val Asn Trp Glu Phe Val Gly His Ser Val Pro Thr Leu Asp Trp
                85                  90                  95
Gly Ser Ile Tyr Asn Leu Asp Gly Gly Gln Ala Tyr Val Lys Gly Ile
            100                 105                 110
Trp Ala Ser Thr Leu Arg Tyr Arg Lys Ser Asn Gly Leu Trp Tyr Trp
        115                 120                 125
Ile Gly Cys Ile Gln Phe Arg Thr Thr Tyr Ile Tyr Thr Ala Pro Ser
    130                 135                 140
Val Thr Gly Pro Trp Thr Lys Ser Gly Val Ile Asn Thr Cys Leu Tyr
145                 150                 155                 160
Asp Cys Ser Leu Leu Ile Asp Asp Asp Asp Thr Met Tyr Val Ala Tyr
                165                 170                 175
Gly Ala Thr Thr Ile Ser Val Ala Gln Leu Ser Ser Asn Gly Leu Ser
            180                 185                 190
Gln Val Lys Thr Gln Glu Val Phe Lys Ser Thr Ile Gly Pro Ile Glu
        195                 200                 205
Gly Ser Arg Phe Tyr Lys Ile Asn Gly Glu Tyr Tyr Ile Phe Thr Thr
```

```
    210                 215                 220
Leu Pro Ala Asn Ala Glu Tyr Val Leu Lys Ala Xaa Ile Pro Trp Gly
225                 230                 235                 240
Pro Tyr Thr Glu Lys Leu Leu Leu Lys Asp Ile Ser Thr Pro Ile Ala
                245                 250                 255
Gly Gly Gly Val Thr His Gln Val Cys His Leu Leu Ile Ser Lys Pro
            260                 265                 270
Ser Asn Leu Trp Glu Tyr Lys Val Gly Ile Val Gln Thr Pro Ala Trp
        275                 280                 285
Arg Met Val Phe Thr Trp Ala Phe Gly Trp Thr Pro Tyr Pro Met Gly
    290                 295                 300
Val Leu Ile Pro Ile Pro Pro Leu Pro Asn Tyr Phe Gly Ala Pro Tyr
305                 310                 315                 320
Trp Val Pro Arg Val Asn His Gln Ile Phe
                325                 330
```

<210> 37879
<211> 61
<212> PRT
<213> A.fumigatus

<400> 37879

```
Met Glu Asp Leu Lys Trp Val Asp Gln Cys Ile Tyr Glu Ile Glu Leu
1               5                   10                  15
Asp Ile Asn Arg Arg Met Phe Asp Ile Leu Tyr Thr Ala Ile Gly Ala
            20                  25                  30
Tyr Val Val Ala Gln Arg Val Tyr Ser Leu Asn Ala Thr Asn Thr Val
        35                  40                  45
Pro Ser Ser Ala Ser Asp Val Thr Tyr His Arg Lys Ala
    50                  55                  60
```

<210> 37880
<211> 147
<212> PRT
<213> A.fumigatus

<400> 37880

```
Ala Ala Val Arg Ile His Ser Glu Leu Ile His Thr Gly Leu Gly Ile
1               5                   10                  15
Ile Asp Arg Ser Ile Thr Leu Val Glu Glu Arg Asp His Val Thr Leu
            20                  25                  30
Glu Leu Thr Arg Ser Gly Asp Ser Asp Leu His His Gly Leu Lys Asp
        35                  40                  45
Arg Arg Val Ala Phe His Glu Ser Leu Pro Glu Ser Leu Leu Gly Gly
    50                  55                  60
Val Leu Glu Arg His Phe Gly Arg Ile Arg His Val Gly Ser Thr Ile
65                  70                  75                  80
Val Asp Asp His Leu Gly Thr Lys His Leu Val Thr Asp Glu Arg Thr
                85                  90                  95
Leu Phe Ala Ser Lys Ile Glu Thr Leu Leu Thr Ser Glu Lys Glu Leu
            100                 105                 110
Leu Arg Asp Thr Thr Thr Asn Asp Leu Phe Leu Lys Phe Val Val Leu
        115                 120                 125
Glu Phe Ala Gly Gly Leu His Pro Ala Asp Asp Ala Gly Ile Phe Thr
    130                 135                 140
Arg Thr Ser
```

145

<210> 37881
<211> 71
<212> PRT
<213> A.fumigatus

<400> 37881
Cys Ser Gln Arg Arg Asp Leu Phe Ser Ala Pro Lys Lys Ser Ser Glu
1 5 10 15
Lys Pro Gly Thr Arg His Val Ile Ile Ser Ala Thr Thr Asn Glu Ile
20 25 30
Gly Val Val Gln Thr Ile Ser Thr Ala His Val Leu Cys Lys Phe Asp
35 40 45
Met Thr Asp Ser Leu Gly Ile Thr Met Ala Ile Asn Ile Met Ile Ile
50 55 60
Ser Val Val Asn Gln Ser Lys
65 70

<210> 37882
<211> 258
<212> PRT
<213> A.fumigatus

<400> 37882
Glu Val Gly Arg Val Leu Ala Val Leu Gly Leu Asp Lys Lys Arg Asp
1 5 10 15
Asn Arg Leu Gly His Glu His Gly Ser His Gly Val Thr Glu Leu Ser
20 25 30
Ile Gly Glu Ser Val Ala Arg Gly Thr Ile His Thr Glu His Gly Ala
35 40 45
Tyr Phe Thr Gly Ser Asn Leu Arg Tyr Leu Leu His Leu Ile Gly Met
50 55 60
His Ala Asn Asn Ala Arg Asn Leu Asp Leu Leu Val Val Ala Ser Ile
65 70 75 80
Glu Asp Ile Gly Ala Leu Ala Glu Gly Thr Leu Val His Ala Asn Ile
85 90 95
Gly Gln Leu Pro Lys Val Ala Phe Phe Gln Leu Glu Ser Lys Thr Asn
100 105 110
Lys Arg Leu Gly Val Val Arg Asp Lys Leu Asp Arg Ser Leu Val Ala
115 120 125
Leu Pro Val Lys Ser Glu Val Phe Asn Phe Arg Trp Val Gly Glu Val
130 135 140
Val Asp Asp Thr Ile Lys His Arg Leu His Gly Phe Val Gly Gln Cys
145 150 155 160
Arg Thr His Glu Asp Gly Ser Glu Leu Gln Ala Asn Gly Cys Pro Ala
165 170 175
Asp Ser Gly Leu Glu Leu Leu Leu Arg Arg Leu Ser Leu Leu Gln Glu
180 185 190
Glu Leu Ser Asp Leu Val Val Asp Ile Gly Lys Arg Leu Asp Glu His
195 200 205
Pro Pro Pro Ile Leu His Asp Arg Leu Asp Leu Leu Arg Asn Leu Ile
210 215 220
Leu Asn His Asp Ser Leu Thr Val Arg Tyr Ile Val Val Asn Gly Leu
225 230 235 240
His Thr Asn Gln Val Asp His Thr Leu Glu Leu Val Phe Ser Ala Tyr

245 250 255

Trp His

<210> 37883
<211> 239
<212> PRT
<213> A.fumigatus

<400> 37883
Phe Leu Ala Gly Val Asn Cys Ile Leu Asp Ile Asn Ile Glu Arg Met
1 5 10 15
Gly Arg Glu Tyr Arg Val Asp Cys Val Thr Gly Pro Pro Gln Val Ala
20 25 30
Tyr Arg Glu Thr Ile Gly Asn Arg Val Glu Phe Asp His Leu Leu Lys
35 40 45
Lys Gln Ser Gly Gly Pro Gly Glu Tyr Ala Arg Val Val Gly Trp Met
50 55 60
Glu Pro Thr Gly Lys Leu Glu Asp Asn Lys Phe Glu Glu Gln Ile Val
65 70 75 80
Gly Gly Ser Ile Ser Glu Lys Phe Leu Phe Ala Cys Glu Lys Gly Phe
85 90 95
Asn Leu Ala Cys Glu Lys Gly Pro Leu Ile Gly His Lys Val Leu Gly
100 105 110
Thr Lys Met Val Ile Asn Asp Gly Ala Thr His Met Thr Asp Ser Ser
115 120 125
Glu Met Ser Phe Lys Asn Ala Thr Gln Gln Ala Phe Arg Lys Ala Phe
130 135 140
Met Glu Ser Asn Pro Ser Val Leu Glu Pro Met Met Lys Ile Ala Val
145 150 155 160
Thr Ala Pro Gly Glu Phe Gln Gly Asp Val Ile Ser Leu Leu Asn Lys
165 170 175
Arg Asn Ala Thr Ile Asn Asp Thr Glu Thr Gly Val Asp Glu Phe Thr
180 185 190
Val Tyr Ala Asp Cys Ser Leu Asn Gly Met Phe Gly Phe Ser Thr His
195 200 205
Leu Arg Ala Ala Thr Gln Gly Lys Gly Glu Phe Thr Met Glu Phe Ser
210 215 220
His Tyr Glu Lys Ala Gln Pro Gln Leu Gln Tyr Val Gln Ser Phe
225 230 235

<210> 37884
<211> 154
<212> PRT
<213> A.fumigatus

<400> 37884
Leu Arg Ala Asp Thr Asp Phe Ser Arg Pro Gly Cys Ala Ala Thr Cys
1 5 10 15
Tyr Ala Leu Tyr Arg Ala Tyr Arg Ser Met Lys Ala Gly Asp Ser Val
20 25 30
Glu Met Asn Lys Met Phe Arg Ala Arg Ile Tyr Ala Gln Phe Phe Thr
35 40 45
Leu Val Ala Val Val Ala Gly Gly Met Tyr Tyr Lys Thr Glu Arg Gln
50 55 60
Gln Arg Arg Glu Phe Glu Lys Met Val Glu Gln Arg Lys Ala Gln Glu

```
65                  70                  75                  80
Lys Arg Asp Ala Trp Leu Arg Glu Leu Glu Ile Arg Asp Lys Glu Asp
                85                  90                  95
Lys Asp Trp Arg Glu Arg His Ala Ala Ile Glu Ala Ala Ala Lys Glu
            100                 105                 110
Ala Gly Lys Arg Pro Ala Pro Lys Lys Leu Pro Glu Gln Asp Ala Ala
        115                 120                 125
Arg Ser Ala Ile Glu Pro Ala Asp Glu Arg Ser Ile Gly Val Leu Ser
    130                 135                 140
Ala Val Arg Asp Leu Trp Met Gln Gln Lys
145                 150
```

<210> 37885
<211> 142
<212> PRT
<213> A.fumigatus

<400> 37885

```
Asn Met Tyr Leu Asp Ala Gln Lys Glu Pro Gln Ile Ser Phe Asn Val
1               5                   10                  15
Ser Ser Gly Thr Tyr Ile Val Ile Ser Leu Asp Ile Asp Ala Pro Phe
            20                  25                  30
Pro Ser Leu Gly Phe Leu Gly Pro Ile Leu His Trp Ile His Pro Gly
        35                  40                  45
Phe Lys Pro Ser Thr Asp Thr Thr Val Thr Gly Glu Thr Ile Leu Thr
    50                  55                  60
Thr Ser Ala Pro Phe Val Ala Asn Tyr Ile Gly Pro Ala Pro Pro Pro
65                  70                  75                  80
Gly Ser Ala Pro His Arg Tyr Val Phe Leu Leu Tyr Glu Gln Pro Glu
                85                  90                  95
Gly Phe Asn Ile Glu Lys His Ala Pro Lys Asn Gly Lys Pro Val Gly
            100                 105                 110
Asn Trp Gln Arg Ile Arg Tyr Asp Leu Gly Ala Phe Ala Lys Glu Val
        115                 120                 125
Asn Leu Gly Pro Val Leu Ala Ala Asn Tyr Phe Arg Ser Asn
    130                 135                 140
```

<210> 37886
<211> 456
<212> PRT
<213> A.fumigatus

<400> 37886

```
Ala His Ile Asp Ser Gly Lys Thr Thr Cys Thr Glu Arg Val Leu Phe
1               5                   10                  15
Tyr Thr Gly Arg Ile Lys Ala Ile His Glu Val Arg Gly Arg Asp Asn
            20                  25                  30
Val Gly Ala Lys Met Asp Ser Leu Asp Leu Glu Arg Glu Lys Gly Ile
        35                  40                  45
Thr Ile Gln Ser Ala Ala Thr Phe Cys Asp Trp Ile Lys Lys Gly Asp
    50                  55                  60
Asp Gly Lys Glu Glu Lys Tyr His Ile Asn Leu Ile Asp Thr Pro Gly
65                  70                  75                  80
His Ile Asp Phe Thr Ile Glu Val Glu Arg Ala Leu Arg Val Leu Ala
                85                  90                  95
Gly Ala Val Met Ile Leu Cys Ala Val Ser Gly Val Gln Ser Gln Thr
```

```
            100                 105                 110
Ile Thr Val Asp Arg Gln Met Arg Arg Tyr Asn Val Pro Arg Ile Ser
        115                 120                 125
Phe Val Asn Lys Met Tyr Arg Met Gly Ala Asn Pro Phe Lys Ala Val
    130                 135                 140
Glu Gln Ile Asn Thr Ser Leu Lys Ile Pro Ala Ala Ala Val Leu Val
145                 150                 155                 160
Pro Ile Gly Ala Glu Asp Glu Phe Glu Gly Val Val Asp Leu Ile Arg
                165                 170                 175
Met Lys Ser Ile Tyr Asn Asp Val Pro Asn Gly Glu Thr Val Val Val
            180                 185                 190
Lys Asp Glu Ile Pro Glu Lys Val Lys Ser Val Val Glu Asp Arg Arg
        195                 200                 205
Arg Met Leu Ile Glu Thr Leu Ala Asp Val Asp Asp Glu Ile Ala Glu
    210                 215                 220
Leu Phe Leu Glu Glu Thr Glu Pro Thr Glu Gln Gln Leu Lys Ala Ala
225                 230                 235                 240
Ile Arg Arg Ala Thr Ile Gly Leu Lys Phe Thr Pro Val Phe Met Gly
                245                 250                 255
Ser Ala Leu Ala Asn Lys Ser Val Gln Pro Met Leu Asp Gly Val Ile
            260                 265                 270
Asp Tyr Leu Pro Asn Pro Ser Glu Val Glu Asn Leu Ala Leu Asp Arg
        275                 280                 285
Lys Arg Asp Glu Ala Ser Val Lys Leu Val Pro Tyr Asn Ser Gln Pro
    290                 295                 300
Phe Val Gly Leu Ala Phe Lys Leu Glu Glu Ser Asn Phe Gly Gln Leu
305                 310                 315                 320
Thr Tyr Ile Arg Val Tyr Gln Gly Thr Leu Arg Lys Gly Ala Asn Val
                325                 330                 335
Phe Asn Ala Arg Asn Asn Lys Lys Val Lys Val Pro Arg Ile Val Arg
            340                 345                 350
Met His Ser Asn Glu Met Glu Glu Val Ser Glu Ile Gly Ala Gly Glu
        355                 360                 365
Ile Cys Ala Val Phe Gly Val Asp Cys Ala Ser Gly Asp Thr Phe Thr
    370                 375                 380
Asp Gly Gln Leu Gly Tyr Thr Met Thr Ser Met Phe Val Pro Glu Pro
385                 390                 395                 400
Val Ile Ser Leu Phe Ile Lys Pro Lys Asn Ser Lys Asp Ser Ala Asn
                405                 410                 415
Phe Ser Lys Val Met Ala Arg Phe Gln Arg Glu Asp Pro Thr Phe Arg
            420                 425                 430
Val Ser Tyr Asn Ala Glu Ser Glu Glu Thr Leu Ile Ser Gly Arg Gly
        435                 440                 445
Glu Leu His Ser Arg His Lys His
    450                 455
```

<210> 37887
<211> 71
<212> PRT
<213> A.fumigatus

<400> 37887

```
Ser Val Ile Ser Lys His Gln Asn His Arg Leu Thr Tyr Ala Ser Leu
1               5                   10                  15
Asp Ala Lys Ser Asn Ala Leu Ala Arg Gly Leu Glu Ser Val Gly Val
            20                  25                  30
```

```
Arg Lys Gly Asp Arg Val Gly Val Met Leu Gly Asn Ser Ser Glu Tyr
        35                  40                  45
Ala Ile Val Cys Arg Leu Ser Ser Arg Pro Ser His Glu Leu Arg Leu
    50                  55                  60
Leu Leu Glu Ile Asn His Thr
65                  70
```

<210> 37888
<211> 161
<212> PRT
<213> A.fumigatus

<400> 37888

```
Thr Gly Asp Glu Ala Ser Met Ser Pro Asp Gly Tyr Ile Thr Ile Thr
1               5                   10                  15
Gly Arg Ile Lys Asp Leu Ile Ile Arg Gly Gly Glu Asn Ile His Pro
            20                  25                  30
Leu Glu Ile Glu Asn Cys Leu Leu Thr Cys Pro Gly Val Ala Asp Val
        35                  40                  45
Ser Val Val Gly Val Pro Asp Glu Arg Tyr Gly Glu Val Val Ala Ala
    50                  55                  60
Phe Ile Ile Cys Lys Glu Gln Asp Arg Arg Thr Val Ala Glu Asp Lys
65                  70                  75                  80
Ile Arg Asp Trp Val Arg Glu Arg Leu Ser Asn His Leu Gly Lys Asn
                85                  90                  95
Leu Leu Ser Phe Leu Phe Ser Gly Lys Thr Ser Phe Ile Pro Gln Tyr
            100                 105                 110
Ala Asn Gln Asn Gln Leu Ala Asn Ser Ser Glu Ile Arg Phe Phe Pro
        115                 120                 125
Phe Thr Phe Arg Phe Phe Pro Gln Asp Cys Glu Arg Gln Ser Ser Glu
    130                 135                 140
Val Gln Ala Glu Gly Asp Cys His Gln Asp Ser Glu Arg Ala Glu Gln
145                 150                 155                 160
Cys
```

<210> 37889
<211> 63
<212> PRT
<213> A.fumigatus

<400> 37889

```
His Tyr Ala Asp Ile Lys Pro Pro Leu Ile Asp Ser Thr Val Gly Asp
1               5                   10                  15
His Phe Ala Ser Ile Val Ser Gln Tyr Gly Asp Arg Glu Ala Tyr Val
            20                  25                  30
Thr Lys Ser Cys Ala Ser Ile Leu Leu Asp Leu Ser Asn Met Ala Asp
        35                  40                  45
Ser His Ala Leu Lys Ala Ser Tyr Gln Asn Ile Arg Ile Thr Asp
    50                  55                  60
```

<210> 37890
<211> 422
<212> PRT
<213> A.fumigatus

<400> 37890

```
Thr Ala Asp Ser Asp Lys Glu Leu Ser Ala Glu Pro His Leu Gln Val
1               5                  10                  15
Pro Leu Asn Pro Ser Phe Asn Ala Thr Gln Val Ile Ser Ala Leu Ser
            20                  25                  30
His Leu Gly Ala Ala His Leu Ile Ile Ser Ala Glu Ser Asn Leu Pro
        35                  40                  45
Arg Lys Glu Pro Arg Ser Asn Val Pro Leu Leu Lys His Leu Val Gln
    50                  55                  60
Asp Leu Tyr Thr Gly Lys Val Glu Ser Ala Val Val Pro Ser Val Lys
65                  70                  75                  80
Asn Val Ile Phe Val Asp Asn Ser Ser Gly Arg Val Lys Trp Ser Asp
                85                  90                  95
Tyr Lys Ser Leu Thr Pro Phe Thr Ser Val Ile Ser Asp Asn Val Ala
            100                 105                 110
Asp Ala Asn Pro Leu Pro Pro Gln Asp Leu Ser Pro Ser Asp Val Val
        115                 120                 125
Asn Ile Gln Phe Thr Ser Gly Thr Thr Ala Met Pro Lys Ala Ala Cys
    130                 135                 140
Leu Ser His Arg Ser Ile Leu Asn Asn Gly Ser Gln Ile Gly Asp Arg
145                 150                 155                 160
Met Arg Leu Thr Ala Lys Asp Ile Val Cys Cys Pro Pro Pro Leu Phe
                165                 170                 175
His Cys Phe Gly Cys Ile Leu Gly Tyr Met Ala Thr Ala Thr His Gly
            180                 185                 190
Ser Ala Ile Val Phe Pro Thr Glu Ser Phe Asn Ala Arg Ala Thr Leu
        195                 200                 205
Lys Ala Val Gln Glu Glu Lys Cys Thr Ala Leu Tyr Gly Val Pro Thr
    210                 215                 220
Met Phe Leu Glu Glu Leu Gly Leu Leu Gln Glu Gly Glu Val Glu His
225                 230                 235                 240
Lys Gly Phe Glu Phe Leu Arg Thr Gly Ile Ala Ala Gly Ser Ser Ile
                245                 250                 255
Pro Glu Ala Leu Met Lys Lys Leu His Lys Val Leu Asn Leu Thr Glu
            260                 265                 270
Leu Thr Ile Cys Tyr Gly Met Thr Glu Thr Ser Pro Val Ser Ala Met
        275                 280                 285
Thr Ala Thr Asp Asp Pro Leu Asp Lys Arg Ile Ser Thr Val Gly Thr
    290                 295                 300
Leu Met Pro His Val Glu Ala Lys Val Val Asp Pro Ala Asp Arg Ser
305                 310                 315                 320
Lys Ile Leu Pro Ile Asn Thr Arg Gly Glu Leu Ala Val Ser Gly Tyr
                325                 330                 335
Leu Leu Met Lys Glu Tyr Trp Gly Asp Pro His Arg Thr Ala Glu Val
            340                 345                 350
Met Ile Ala Asp Gln Glu Gly Lys Ile Trp Met His Val Ser Gln Pro
        355                 360                 365
Tyr Leu Thr Ala Phe Ser Val Ser Arg His His Lys Val Ala Gly Asp
    370                 375                 380
Leu Thr Glu Asp His Arg Leu Ala Thr Lys Pro Pro Cys His Arg Met
385                 390                 395                 400
Ala Thr Ser Arg Ser Arg Ala Val Ser Lys Ile Ser Ser Ser Glu Glu
                405                 410                 415
Ala Arg Thr Phe Thr Leu
            420
```

<210> 37891
<211> 73
<212> PRT
<213> A.fumigatus

<400> 37891
Val Thr Thr Ser Val Arg Ile Phe Tyr Leu Phe Phe Leu Ala Ala Arg
1 5 10 15
His Pro Ser Tyr Leu Asn Met Leu Thr Lys Ile Asn Leu Leu Ile Val
20 25 30
Pro Lys Tyr Val Phe Phe Leu Ser Pro Ser Asp Ser Phe Pro Lys Thr
35 40 45
Ala Ser Gly Lys Val Gln Lys Phe Lys Leu Lys Glu Thr Ala Ile Lys
50 55 60
Ile Leu Lys Glu Gln Ser Asn Ala Asn
65 70

<210> 37892
<211> 93
<212> PRT
<213> A.fumigatus

<400> 37892
Trp Val Ile Gly Arg Cys His Gly Arg Asn Gly Thr Ser Phe Ser His
1 5 10 15
Ala Val Ala Asp Gly Gln Phe Cys Glu Ile Glu Asp Leu Met Gln Leu
20 25 30
Leu His Glu Arg Phe Trp Asn Ala Ala Thr Ser Gly Asp Ala Cys Pro
35 40 45
Lys Lys Leu Lys Pro Phe Val Phe Tyr Phe Ala Phe Leu Lys Gln Ala
50 55 60
Glu Leu Phe Glu Glu His Gly Arg His Ala Val Lys Cys Cys Thr Phe
65 70 75 80
Phe Leu Leu His Gly Phe Gln Ser Gly Thr Gly Val Glu
85 90

<210> 37893
<211> 71
<212> PRT
<213> A.fumigatus

<400> 37893
Ile Cys Arg Asn Val Pro Ala Asn Asp Asp Arg Ala Asp Phe Phe Val
1 5 10 15
Ser Asn Ala Asn Arg Thr Arg Ile Asn Ser Asn Gly Tyr Val Lys Asn
20 25 30
Thr Asp Val Thr Pro Ala Arg Leu Pro Asp Met Ser Leu Arg Asn Gly
35 40 45
Val Ser Leu Ser Arg Glu Gly Met Ile Thr Ala Arg Ile Cys Ser Tyr
50 55 60
Ala Arg Asn Leu Met Ala Ala
65 70

<210> 37894
<211> 272
<212> PRT

<213> A.fumigatus

<400> 37894
Met Leu Ile Asp Trp Leu His Asn Lys Ile Val His Arg Pro Val Gly
1 5 10 15
Gly Thr Lys Lys Ser Cys Met Lys Phe Leu Lys Pro Arg Ser Asp Gln
20 25 30
Asp Asn Thr Thr Lys Lys Leu Arg Tyr Arg Asn Phe Ile Ser Ala His
35 40 45
Leu Arg Gln Thr Ala Asp Arg Asp Ile Glu Met Thr Thr Arg Lys Arg
50 55 60
Asn Glu Phe Leu Asp Val Val Ser Asp Asp Asp Glu Gly Ser Asp Arg
65 70 75 80
Gly Tyr Asp Ser Glu Ala Ala Glu Glu Ser Lys Gly Arg Leu Ala Lys
85 90 95
Arg Arg Lys Thr His Thr Arg Ala Asp Asp Val Ser Asp Glu Glu Ser
100 105 110
Asp Ile Gly Arg Ser Glu Ser Glu Asp Glu Ser Lys Thr Arg Leu Lys
115 120 125
Gly Lys Pro Lys Ser Lys Ser Gln Thr Thr Glu Arg Ser Asn Asp Asp
130 135 140
Asp Asp Glu Asp Glu Ala Asp Asp Gly Glu Lys Met Gln Val Asp Gln
145 150 155 160
Tyr Leu Asp Ala Thr Ala Thr Leu Ser Pro Ser Gln Ser Arg Ser Gln
165 170 175
Ser Pro Ser Thr Ser Ser Val Thr Ser Lys Pro Thr Lys Leu Lys Lys
180 185 190
Lys Pro Leu Asp Lys Val Arg Pro Pro Lys Lys Asn Lys Thr Gly Val
195 200 205
Ile Tyr Leu Ser Ser Leu Pro Pro Tyr Leu Lys Pro Phe Ala Leu Lys
210 215 220
Ser Met Leu Glu Thr Arg Gly Phe Gly Pro Ile Asn Lys Gly Leu Leu
225 230 235 240
Asp Ser Leu Lys Trp Pro Ser Lys Phe Arg Pro Leu Arg Arg Pro Ile
245 250 255
Pro Leu Asn Gly Asn Pro Thr Pro Asn Gly Gly Val Glu Phe Pro Val
260 265 270

<210> 37895
<211> 66
<212> PRT
<213> A.fumigatus

<400> 37895
Lys Glu His Phe Ser Val His Asp Leu Cys Phe Ile Asn Gly Arg Asp
1 5 10 15
Tyr Pro Val Ala Arg Asp Ile Leu Leu Thr Ala Ser Pro Thr Pro Glu
20 25 30
Leu Gly Leu Leu Leu Gly Ile Arg Leu Cys Arg Gln His Phe Arg Thr
35 40 45
Met Gly Val Leu Ile Ser Leu Val Leu Tyr Arg Ala Gln Asp Lys Ile
50 55 60
Thr Ser
65

<210> 37896

<211> 326
<212> PRT
<213> A.fumigatus

<400> 37896
Ala Lys Thr Val Val Ala Pro Leu Asp Arg Val Lys Ile Leu Phe Gln
1 5 10 15
Ala Ser Asn Pro His Phe Ala Lys Tyr Thr Gly Ser Trp Phe Gly Leu
20 25 30
Ala Ser Ala Val Arg Asp Ile His Arg His Glu Gly Val Arg Gly Leu
35 40 45
Phe Lys Gly His Ser Ala Thr Leu Leu Arg Ile Phe Pro Tyr Ala Ala
50 55 60
Ile Lys Phe Leu Ala Tyr Glu Gln Ile Arg Ala Val Ile Ile Pro Ser
65 70 75 80
Arg Asp Lys Glu Thr Pro Phe Arg Arg Leu Ile Ser Gly Ser Leu Ala
85 90 95
Gly Val Thr Ser Val Phe Phe Thr Tyr Pro Leu Glu Leu Ile Arg Val
100 105 110
Arg Leu Ala Phe Glu Thr Lys Lys Ser Ala Arg Ser Ser Leu Ala Gly
115 120 125
Thr Phe Arg Gln Ile Tyr Asn Glu Gln Ala Ser Val Pro Ser Ala Ala
130 135 140
Ala Lys Gly Thr Ala Gly Ser Ala Val Thr Thr Ala Glu Asn Val Ser
145 150 155 160
Ser Ala Met Asn Lys Val Val Pro Arg Tyr Gly Leu Ser Asn Phe Tyr
165 170 175
Arg Gly Phe Thr Pro Thr Leu Leu Gly Met Leu Pro Tyr Ala Gly Val
180 185 190
Ser Phe Leu Thr His Asp Thr Val Gly Asp Trp Leu Arg Ser Pro Leu
195 200 205
Leu Ala Arg Tyr Thr Ile Ile Pro Ala Ser Asp Gln Ser Ser His Ser
210 215 220
Gln Ser Gln Lys Gly Ser Arg Arg Pro Gln Leu Thr Ala Ala Ala Glu
225 230 235 240
Leu Phe Ser Gly Ala Val Ala Gly Leu Val Ser Gln Thr Cys Ser Tyr
245 250 255
Pro Leu Glu Val Val Arg Arg Arg Met Gln Val Gly Gly Ala Val Gly
260 265 270
Asp Gly Arg Arg Leu Gly Val Val Glu Thr Ala Ala Lys Ile Trp Leu
275 280 285
Glu Lys Gly Leu Arg Gly Phe Phe Val Gly Leu Thr Ile Gly Tyr Ile
290 295 300
Lys Val Leu Pro Met Ser Ala Thr Ala Phe Phe Thr Tyr Glu Arg Leu
305 310 315 320
Lys Trp Ser Leu Gly Ile
325

<210> 37897
<211> 99
<212> PRT
<213> A.fumigatus

<400> 37897
Pro Leu Ser Gln Ser Phe Cys Arg Leu Ser Leu Ser Ser His Thr Glu
1 5 10 15

```
Leu His Gly Ala Ser Arg Pro Asp Pro Gln Pro Ala Leu Lys Ala Pro
            20                  25                  30
His Asp Thr Thr Asp Val Leu Ala Ile Arg Thr Glu Arg Phe Gln Pro
        35                  40                  45
Ser Leu Leu Asn Ser Ala Gly Val Asn Asn Gln Asp Pro Ala Lys His
    50                  55                  60
Ile Gly Met Thr Ala His Val Leu Gly Ser Thr Val His His Asn Val
65                  70                  75                  80
Gly Ser Glu Leu Gln Gly Val Leu Gln Arg Gly Arg Ser Lys Ser Arg
                85                  90                  95
Val His Cys
```

<210> 37898
<211> 298
<212> PRT
<213> A.fumigatus

<400> 37898

```
Tyr Val Met Thr Glu Tyr Asp Arg Pro Phe Ser Ile Glu Leu Pro Ala
1               5                   10                  15
Lys Arg Gln Ala Val Thr Met Ala Ala Thr Val Ala Ser Trp Leu Gly
            20                  25                  30
Tyr Ile Pro Ser Leu Ala Gly Asp Lys Glu Leu Pro Asp Glu Pro Pro
        35                  40                  45
Lys Ala Leu Pro Ala Ser Trp Tyr Tyr Ser Pro Glu Ile Tyr Gln Leu
    50                  55                  60
Glu Arg Arg Ala Ile Phe Ser Lys Arg Trp Ile Leu Val Thr His Lys
65                  70                  75                  80
Leu Arg Phe Thr Lys Pro Gly Asp Phe Leu Arg Phe Glu Glu Ala Gly
                85                  90                  95
Phe Ser Phe Val Leu Cys Leu Asp Arg Glu Gly Asn Leu Asn Gly Phe
            100                 105                 110
His Asn Ile Cys Arg His Arg Ala Tyr Pro Leu Val Ser Glu Asp Glu
        115                 120                 125
Gly Asn Val Lys Ile Leu Ser Cys Lys Tyr His Gly Trp Ser Tyr Ser
    130                 135                 140
Leu Asn Gly Lys Leu Ala Lys Ala Pro Lys Phe Glu Val Val Pro Gly
145                 150                 155                 160
Phe Gln Lys Glu Asn Gln Ser Leu Phe Pro Val His Val His Thr Asp
                165                 170                 175
Ala Leu Gly Phe Ile Trp Val Asn Leu Asp Ser Ser Pro Asn Pro Val
            180                 185                 190
Pro Trp Glu Glu Asp Phe Asp Gly Val Asp Arg Gln Glu Arg Phe Gln
        195                 200                 205
Arg Phe Asp Phe Thr Gln Tyr Lys Phe Asp His Thr Trp Gln Met Thr
    210                 215                 220
Gly Asp Tyr Asn Trp Lys Thr Leu Ala Asp Asn Tyr Asn Glu Cys Tyr
225                 230                 235                 240
His Cys Thr Ile Ala His Pro Asp Val Ala Lys Leu Gly Asp Leu Ser
                245                 250                 255
Tyr Tyr Tyr Thr Val Ser Thr Pro Gly His Ile Gln His Phe Ser Arg
            260                 265                 270
Pro Lys Pro Asp Lys Val Asp Glu Asp Ile Gln Asn Ala Ser Thr Tyr
        275                 280                 285
Tyr Phe Pro Asn Ala Cys Met Thr Val Ser
```

290 295

<210> 37899
<211> 162
<212> PRT
<213> A.fumigatus

<400> 37899
Gln Tyr Arg Glu Leu Leu Leu Ser Phe Thr Phe Gly Phe Ser Thr Thr
1 5 10 15
Ser Tyr Leu Leu Thr Ser Asn His Pro Arg Pro His Phe Phe Tyr Met
20 25 30
Met Arg Cys Val Pro Thr Ser Ala Thr Ser Cys Ser Met Glu Tyr Glu
35 40 45
Val Tyr Arg His Ile Glu Ala Ser Asp Glu Asp Phe Glu Tyr Ile Asp
50 55 60
Ser Phe Phe Lys Arg Val Leu Asp Glu Asp Lys His Leu Cys Asn Ala
65 70 75 80
Ala Gln Lys Asn Leu Asn Ala Gly Val Phe Val Asn Gly Gln Leu His
85 90 95
Pro Asp Leu Glu Ser Ala Pro Leu Phe Phe Gln Asn Thr Val Arg Ser
100 105 110
Leu Leu Lys Ser His Ser Asp Glu Glu Arg Lys Ile Asn Arg Glu Ile
115 120 125
Trp Pro Ala Arg Gln His Ser Ala Gly Gln Ala Thr Ala Glu Asp Val
130 135 140
Ala Phe Cys Leu Gly Leu Ala Cys Ser Ala Ala Gly Ser Ala Asp Leu
145 150 155 160
Glu Trp

<210> 37900
<211> 364
<212> PRT
<213> A.fumigatus

<400> 37900
Pro Ile Lys Ser Arg Gln Thr Ile Phe Thr Gly Val Ile Thr Tyr Phe
1 5 10 15
Val Thr Lys Thr Leu Lys Met Asp His Phe Asp Val Ala Val Val Gly
20 25 30
Leu Gly Val Leu Gly Ser Gly Ala Ala Tyr Tyr Ala Ala Lys Lys Gly
35 40 45
Ala Lys Val Ile Ala Phe Glu Gln Phe Glu Leu Gly His Val Arg Gly
50 55 60
Ala Ser His Asp Thr Ser Arg Ile Val Arg Thr Ser Asn Phe Ala Pro
65 70 75 80
Glu Tyr Val Ala Leu Ala Lys Ser Ala Tyr Lys Asp Trp Ala Glu Leu
85 90 95
Glu Lys Ile Thr Gly Tyr Gln Met Leu Thr Thr Thr Gly Gly Val Val
100 105 110
Phe Phe Ala Pro Asp Ser Pro Thr Ser Ala Ser Asp Phe Thr Arg Ser
115 120 125
Leu Asp Thr His Asp Val Pro Tyr Glu Leu Leu Asp Ala Gln Glu Val
130 135 140
Lys Arg Arg Trp Pro Gln Phe Asn Ile Pro Gln Ser Val Ser Thr Val

```
145                 150                 155                 160
Tyr Thr Ala Asp Ser Ala Ile Val His Ala Ala Lys Thr Val Ser Thr
                165                 170                 175
Leu Gln Ser Leu Ala Arg Ser His Gly Ala Ile Leu Lys Asp Asn Thr
            180                 185                 190
Pro Val Glu Arg Leu Ile Pro Gln Ala Ser Gly Gly Val Ile Ile Glu
        195                 200                 205
Thr Pro Lys Gly Gln Phe His Ala Gly Lys Val Ile Leu Ala Thr Asp
    210                 215                 220
Ala Trp Ile Asn Lys Leu Leu Ala Pro Leu Ser Val His Ile Pro Val
225                 230                 235                 240
Ser Val Met Gln Glu Gln Val Thr Tyr Phe Lys Pro Thr Asp Ala Gly
                245                 250                 255
Thr Phe Glu Pro Asp Arg Phe Pro Val Trp Ile Trp His Gly Ala Asn
            260                 265                 270
Cys Phe Tyr Gly Phe Pro Cys Tyr Gly Glu Pro Thr Met Lys Ala Gly
        275                 280                 285
Arg Asp Tyr Ser Asn Asn Leu Met Thr Pro Glu Gln Arg Thr Phe Val
    290                 295                 300
His Ser Pro Gln Leu Leu Glu Gln Leu Thr Ser Phe Met Asn Gly Phe
305                 310                 315                 320
Ile Pro Asp Gln Asp Arg Gln Pro Leu Arg Thr Ile Thr Cys Gln Tyr
                325                 330                 335
Thr Ile Thr Pro Asp Arg Arg Phe Thr Pro Ser Pro Leu Val Phe Thr
            340                 345                 350
Thr Gly Leu Glu Gly Ser Ala Val Ala Leu Cys Lys
        355                 360
```

<210> 37901
<211> 117
<212> PRT
<213> A.fumigatus

<400> 37901

```
Asn Pro His Gly Arg Pro Ser Ser Asn Lys Gly Pro Tyr Tyr Arg Val
1               5                   10                  15
Leu Phe Thr Ala His His Thr Met Arg Ser Ile Asn Ala Ser Glu Asn
            20                  25                  30
Arg Ser Lys Phe Ile Met Thr Ala Glu Ala Leu Asn Asn Ala Leu Pro
        35                  40                  45
Asp Phe His Met Ala Thr Arg Ala Ile His Ala Asp Asp Phe Val Ser
    50                  55                  60
Pro His Arg Ala Ile Ala Pro Gly Ile His Thr Ala Val Asn Phe Arg
65                  70                  75                  80
Tyr Ala Arg Asp Pro Asp Glu Leu Val Pro Glu Glu Asn Lys Asp Val
                85                  90                  95
Arg Ser Leu Ser Gly Phe Ile Ser Phe Ser Ala Leu Thr Arg Thr Ala
            100                 105                 110
Ala Lys Cys Ala Leu
        115
```

<210> 37902
<211> 348
<212> PRT
<213> A.fumigatus

<400> 37902
Arg Gly Arg Gln Pro Asn Ala Pro Phe Asp Ser His Ile Tyr Ser Arg
1 5 10 15
Tyr Thr Ala Pro Asn Ala Asn Arg Leu Glu Val Leu Leu Arg Ser Leu
20 25 30
Met Gly Gly Glu Val Ile Thr Tyr Ser Thr Gly Leu Ser Ala Phe His
35 40 45
Ala Met Leu Ile Leu Leu Asn Pro Lys Arg Ile Phe Ile Gly Glu Gly
50 55 60
Tyr His Gly Cys His Ser Val Val Asp Ile Ile His Arg Leu Thr Gly
65 70 75 80
Ile Gln Lys Leu Asp Leu Thr Gln Ile Asp Gln Ala Gly Pro Gly Asp
85 90 95
Ile Ile His Val Glu Thr Pro Leu Asn Pro Thr Gly Glu Ala Arg Asn
100 105 110
Leu Ala Tyr Tyr Arg Ala Lys Ala Ser Glu Lys Gly Ala Tyr Leu Thr
115 120 125
Val Asp Ser Thr Phe Ala Pro Pro Pro Leu Gln Asn Pro Leu Glu Phe
130 135 140
Gly Ala Asp Ile Val Met His Ser Gly Thr Lys Tyr Val Gly Gly His
145 150 155 160
Ser Asp Met Leu Cys Gly Ile Leu Val Ile His Pro Arg Arg Val Lys
165 170 175
Glu Gly Trp Leu Lys Thr Leu Arg Thr Asp Arg Gln Tyr Ile Gly Ser
180 185 190
Val Met Gly Ser Phe Glu Gly Trp Leu Gly Ile Arg Ser Ala Arg Thr
195 200 205
Met Gln Leu Arg Val Thr Arg Gln Ala Gln Thr Ala Glu Arg Leu Ala
210 215 220
Lys Trp Leu Gln Asp Gln Leu Lys Asp Glu Thr Ser Pro Ile Ala Lys
225 230 235 240
Val Leu Ser His Ile Gln His Ala Ser Leu Gln Glu Asp Asp Leu Lys
245 250 255
Asn Gly Trp Leu Gln Lys Gln Met Pro Gly Gly Phe Gly Pro Val Phe
260 265 270
Ala Val Trp Thr Lys Asn Pro Glu His Ala Arg Arg Leu Pro Ser Arg
275 280 285
Met Phe Ile Phe Gln His Ala Thr Ser Leu Gly Gly Val Glu Ser Leu
290 295 300
Met Glu Trp Arg Ala Met Ser Asp Ala Arg Cys Asp His Arg Leu Leu
305 310 315 320
Arg Ile Ser Cys Gly Ile Glu Glu Phe Asp Asp Met Lys Ala Asp Ile
325 330 335
Leu Gln Gly Leu Glu Ser Leu Leu Arg Asp Phe Pro
340 345

<210> 37903
<211> 66
<212> PRT
<213> A.fumigatus

<400> 37903
Ser Pro Gly Ile Glu Gln Tyr Ala Met Arg Ala Phe Ala Asp Ala Leu
1 5 10 15
Asp Ala Val Pro Leu Ala Leu Ala Glu Asn Ser Gly Leu Ser Pro Ile
20 25 30

```
Glu Thr Leu Ala Ala Ile Lys Ser Arg Gln Val Lys Glu Lys Asn Ser
        35                  40                  45
Arg Leu Gly Val Asp Cys Met Leu Thr Gly Asn Asn Gly Met Tyr Leu
    50                  55                  60
Ile Leu
65
```

<210> 37904
<211> 93
<212> PRT
<213> A.fumigatus

<400> 37904

```
Ile Ile Asp Glu Ala Lys Arg Ser Leu His Asp Ala Leu Cys Val Val
1               5                   10                  15
Arg Asn Leu Val Arg Asp Asn Arg Val Val Tyr Gly Gly Gly Ala Ala
            20                  25                  30
Glu Ile Ala Cys Ser Leu Ala Val Glu Glu Ala Ala Val Lys Val Ser
        35                  40                  45
Ser Leu Gly Ile His Val Leu Leu Gln Gln Thr Asp Ser Trp Asn Phe
    50                  55                  60
Arg Ala Pro Ala Ser Asn Asn Thr Leu Cys Val Pro Leu Arg Met Arg
65                  70                  75                  80
Trp Met Pro Cys Pro Trp His Trp Pro Arg Ile Arg Val
                85                  90
```

<210> 37905
<211> 223
<212> PRT
<213> A.fumigatus

<400> 37905

```
Arg Trp Phe Ser Gly Trp Gly Thr Leu Gly Ala Ala Arg Asn Val Gly
1               5                   10                  15
Phe Arg Asn Trp Ile Lys Gly Arg Thr Gly Lys Gly Trp Ala Val Ala
            20                  25                  30
Leu Gly Arg Ile Gly Ser Trp Ser Lys Gly Val Asn Ser Gly Ile Arg
        35                  40                  45
Asp Phe Ser His Pro Gln Met Pro Asp Glu Val Thr Asp Ala Lys Trp
    50                  55                  60
Gly Phe Trp Thr Cys Pro Phe Glu Pro Pro Lys Pro Lys Thr Lys His
65                  70                  75                  80
Lys Leu Asp Ile Thr Ser Val Asp Glu Phe Lys Lys Leu Gln Asp Tyr
                85                  90                  95
Glu Arg Glu Lys Phe Thr Glu Met Ile Gln His Leu Lys Asp Ser Gly
            100                 105                 110
Ala Asn Leu Val Ile Cys Gln Trp Gly Phe Asp Asp Glu Ala Asn His
        115                 120                 125
Leu Leu Leu Gln Asn Lys Leu Pro Ala Val Arg Trp Val Gly Gly Pro
    130                 135                 140
Glu Ile Glu Leu Ile Ala Ile Ala Thr Asn Gly Arg Ile Val Pro Arg
145                 150                 155                 160
Phe Glu Asp Leu Ser Pro Glu Lys Leu Gly Thr Ala Gly Arg Val Arg
                165                 170                 175
Glu Met Thr Phe Gly Thr Thr Arg Glu Lys Met Leu Val Ile Glu Glu
            180                 185                 190
```

```
Cys Ala Asn Ser Arg Ala Val Thr Ile Phe Val Arg Gly Ser Asn Lys
        195                 200                 205
Met Val Arg Arg Thr Cys Ala Val Trp Lys Thr Glu Arg His Gly
    210                 215                 220

<210> 37906
<211> 79
<212> PRT
<213> A.fumigatus

<400> 37906
Asp Ala Glu Arg Ala Pro Gln Arg Val Lys Gly Ser Arg Asp Ala Thr
1               5                   10                  15
Ala Ala Asp Leu Phe Leu Ala Val Arg Leu Tyr Asn Ser Cys Cys Ala
            20                  25                  30
Trp Pro Leu Val Asn Gly Tyr Asn Lys Asn Glu Gly Thr Arg Cys Asp
        35                  40                  45
Arg Arg Ile Pro Gln Tyr Lys Leu Leu Gly Ile Ser Val Ile Ser Phe
    50                  55                  60
Val Ser Phe Arg His Phe Ser Leu Cys Ile Arg His Val Leu His
65                  70                  75

<210> 37907
<211> 141
<212> PRT
<213> A.fumigatus

<400> 37907
Arg Ala Leu Gly Phe Ile Asn Asp Leu Arg Glu Lys Gly Gln Pro Cys
1               5                   10                  15
Leu Ser Val Phe His Thr Ala Gln Val Leu Arg Thr Ile Leu Leu Leu
            20                  25                  30
Pro Arg Thr Lys Ile Val Thr Ala Arg Leu Leu Ala His Ser Ser Met
        35                  40                  45
Thr Ser Ile Phe Ser Arg Val Val Pro Asn Val Ile Ser Arg Thr Arg
    50                  55                  60
Pro Ala Val Pro Ser Phe Ser Gly Leu Arg Ser Ser Lys Arg Gly Thr
65                  70                  75                  80
Ile Arg Pro Phe Val Ala Met Ala Met Ser Ser Ile Ser Gly Pro Pro
                85                  90                  95
Thr His Arg Thr Ala Gly Ser Leu Phe Trp Ser Arg Arg Trp Phe Ala
            100                 105                 110
Ser Ser Ser Lys Pro His Trp Gln Ile Thr Arg Leu Ala Pro Glu Ser
        115                 120                 125
Phe Lys Cys Trp Ile Ile Ser Val Asn Phe Ser Arg Ser
    130                 135                 140

<210> 37908
<211> 885
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (56)
<223> Identity of amino acid sequences at the above locations are unknown.
```

<400> 37908
Ile Ser Ser Arg Tyr Thr Arg Ile Leu Thr Lys Tyr Leu Thr Met Asn
1 5 10 15
Arg Pro Ala Arg Ser Ser Ser Ile Arg Lys Asp Ala His Thr Asn Arg
20 25 30
Ser Pro Pro Arg Thr Pro Pro Ser Gln Ala Ser Asn Cys Lys Thr Phe
35 40 45
Lys Arg Gly Leu His Pro Arg Xaa Ser Leu Arg Glu Thr Phe Leu Asp
50 55 60
Asp Thr Asn Pro Ala Asp Asn Ala Asn Asn Ser Ser Asn Asp Ser Ser
65 70 75 80
Glu Glu Arg Asp Pro His Asp Leu Ser Leu Ser Pro Lys His Ala Ala
85 90 95
Arg Thr Ser Ile Val Asp Asn Met Leu Leu Ser Leu Asp Gln Phe Thr
100 105 110
Phe Ser Thr Gly Asn Ser Ile Leu Asp Asp Tyr Arg Leu Phe Asn Ser
115 120 125
Val Phe Glu Ser Glu Leu Tyr Gly Arg Asn Ser Gln Glu Ser Ala Gly
130 135 140
Pro Asn Arg Tyr Arg Gly His Thr Phe Ser Ser Ser Leu Ser Ser Glu
145 150 155 160
Ala Asp Phe Gly Tyr Asp Asp Ser Ser Thr Arg Tyr Gly Thr Gln Pro
165 170 175
Ala Ser Ala Ala Arg Gly Arg Arg Ser Asn Ser Ser Ser Gln Tyr His
180 185 190
Ser Ser Leu Gly Arg Phe Gly Ser Thr Arg Ser Arg Glu Gly Thr Asn
195 200 205
Ser Arg Gly Gln Leu Asn Asp Tyr Arg Ala Val Thr Gly Ala Asp Gln
210 215 220
Thr Thr Arg Gly Thr Arg Lys Ser Ser Lys Ala Ser Ser Ser Thr Asn
225 230 235 240
Leu Asp Phe Gly Ser Ala Leu Ile Arg Gly Arg Ala Asp Ser Ser Gly
245 250 255
Glu Arg Arg Ser Ala Ser Phe Asp Tyr Gly Thr Arg Pro Pro Phe Ile
260 265 270
Ser Thr Asp Phe Asp Ser Thr Phe Tyr Asp Ser Thr Asp Ala Ala Pro
275 280 285
Thr Pro Ser Val Pro Ala Gly Pro Arg Lys Leu His Ser Ser Ala Gln
290 295 300
Asn Asp Tyr Val Gly Val Leu Asn Ser Gln Ser Ser Arg Thr Pro Val
305 310 315 320
Ala Ser Arg Arg Asn Ser Ile Lys Ser Ser Arg Thr Asn His Ala Arg
325 330 335
Lys Ile Arg Pro Asp Thr Ile Gly Thr Ser Ser Ile Leu Arg Gly Ala
340 345 350
Asp Ser Glu Leu Ala Asn Leu Thr Asp Asp Gly Leu Asp Pro Pro Pro
355 360 365
Ala Ile Ser Ala Ser Leu Asp Pro Pro Ala Pro Ser Pro Thr Ile Ser
370 375 380
Phe Asn Lys Pro Ala Met Leu Ala Ser Pro Asp Ser Thr Pro Ala Lys
385 390 395 400
Glu Arg Gln Gly Phe Phe Arg Arg Val Phe Gly Ser Ser Lys Asn Thr
405 410 415
Ala Ser Gly Pro Ser Glu Ser Ile Gln Ser Asp Ser Thr Leu Pro Gln
420 425 430

```
Glu Asn Asp Pro Lys Glu Thr Ile Ala Ala Gly Gly Ser Leu Arg Ser
        435                 440                 445
Arg Arg Gln Pro Leu Arg Thr Asn Val Ser Gly Ala Asn Ala Leu Arg
    450                 455                 460
Glu Gly Gln Pro His Val Val Asn Lys Lys Ser Ser Phe Phe Arg Arg
465                 470                 475                 480
Arg Lys Lys Ser Ile Ser Thr Thr Asp Asn Leu Pro Pro Pro Ile Ile
                485                 490                 495
Leu Pro Gln Glu Leu Gly Pro Lys Ala Val Glu Ile Leu Lys Pro Glu
            500                 505                 510
Pro Ser Pro Val Ser Ser Leu Arg Lys Val Met Asn Pro Tyr Leu Ala
        515                 520                 525
Asp Gly Ile Gly Ala Ala Cys Asp Lys Ser Asn Ser Gly Pro Ile Arg
    530                 535                 540
Val Ala Gly Ala Gly Pro Ala Asp Asn Met Asp Pro Ile Leu Thr Ser
545                 550                 555                 560
Ala Arg Asn Glu Lys Glu Asn Val Ser Thr Ala Pro Ala Lys Gly Gly
                565                 570                 575
Gln Thr Ser Lys Tyr Ser Leu Tyr Pro Pro Pro Thr Ala Gly Ser Gly
            580                 585                 590
His Asp Thr Ser Phe Leu Met Asn Ser Ser Gly Asp Glu Glu Ser Thr
        595                 600                 605
Ala Arg Thr Ala Glu Met Asp Ser Thr Ser Ser Val Asp Arg Lys Gln
    610                 615                 620
Glu Lys Val Ala Val Glu Asp Ala Leu Asn Ser Ser Glu Gly Asp Lys
625                 630                 635                 640
Gly Gly His Thr Thr Asp Gly Thr Ser His Ile Met Ile Pro Thr Thr
                645                 650                 655
Thr Lys Ser Ala Pro Ala Leu Ser Pro Val Val Glu Ser Ile Ser Pro
            660                 665                 670
Ala Ser Val Ser Pro Leu Glu Asp Ser Glu Tyr Leu Thr Thr Glu Thr
        675                 680                 685
Ala Ala Val Asn Ser Ala Thr Arg Thr Ala Gly His Arg Gln Arg Ser
    690                 695                 700
Ser Ser Gly Gly Asp Gln Arg Pro Gln Pro Ser Lys Leu Ser Ile Pro
705                 710                 715                 720
Ala Met Lys Ala Asp Ala Ser Ser Gln Val Ser Pro Ala Asp Ser Asp
                725                 730                 735
Glu Phe Phe Thr Ala Ala Asn Thr Pro Ala Val Pro Ser Glu Asp Pro
            740                 745                 750
Lys Thr Pro Gln Ile Ile Glu Asp Ile Ala Glu Cys Ser Asp Asp Asp
        755                 760                 765
Ser Ser Gly Gly Pro Ser Ser Ser Asp Arg Asp Gln Ala Lys Arg Leu
    770                 775                 780
Phe Asp Ser Gln Asp Gln Val Val Gly Asn Glu Pro Ala Ala Ala Trp
785                 790                 795                 800
Leu Gly Asp Pro Gly Arg Ala Ser Ile Arg Ala Ala Tyr Met Glu Leu
                805                 810                 815
Phe Asp Trp Ser Asn Met Asn Ile Leu Ala Ala Leu Arg Ser Leu Cys
            820                 825                 830
Thr Arg Leu Val Leu Lys Gly Glu Thr Gln Gln Val Asp Arg Val Leu
        835                 840                 845
Asp Ala Phe Ser Thr Arg Trp Cys Gln Cys Asn Pro Arg His Gly Phe
    850                 855                 860
Lys Ala Val Gly Thr Phe Thr Phe Pro Ser Pro Ser Ile Thr Glu Tyr
865                 870                 875                 880
```

Ile Ser Asp Leu Thr
885

<210> 37909
<211> 135
<212> PRT
<213> A.fumigatus

<400> 37909
Leu Arg Pro Asp Val Val His Thr Ile Cys Tyr Ser Leu Leu Leu Leu
1 5 10 15
Asn Thr Asp Leu His Leu Ala Asp Ile Glu Gln Lys Met Thr Lys Asn
20 25 30
Gln Phe Val Arg Asn Thr Met Pro Thr Ile Arg Arg Val Ala Val Glu
35 40 45
Ala Ala Pro Asp Gly Phe Glu Thr Ser Arg Pro Val Asn Arg Ser Lys
50 55 60
Leu Ser Thr Gln Glu Ser Ala Ser Ser Pro Gly Pro Ser Gln Gln Asn
65 70 75 80
Ser Ser Asn Asn Pro Glu Ala Ser Asn Ala Asp Thr Asp Arg Pro Ser
85 90 95
His Pro Pro His Lys Leu Val Asn Arg Leu Ser Arg Thr Asp Leu Ser
100 105 110
Ile Lys Leu Ser Gly Asp Pro Glu Ser His Leu Arg Pro Val Gly Pro
115 120 125
Cys Pro Ile Pro Trp Val Gln
130 135

<210> 37910
<211> 400
<212> PRT
<213> A.fumigatus

<400> 37910
Asp Pro Ile Pro Ala Asp Leu Thr Ser Ile Gly Gly Pro Glu Leu Gly
1 5 10 15
Trp Ile Leu Asp Gly Val Phe Gln Asp Ile His Ile Glu Thr Gly Glu
20 25 30
Leu Leu Phe Glu Trp Arg Ala Ser Gln His Tyr Pro Val Thr Ser Ser
35 40 45
Tyr Glu Ala Leu Asp Gly Ala Gly Lys Asp Arg Asn Asn Ala Phe Asp
50 55 60
Phe Phe His Ile Asn Ser Val Asp Lys Asp Asp Gln Gly Asn Tyr Ile
65 70 75 80
Val Ser Ala Arg His Leu His Ala Val Ser Tyr Ile Asp His Val Thr
85 90 95
Gly Asn Val Leu Trp Thr Leu Gly Gly Lys Leu Asn Glu Phe Thr Asp
100 105 110
Leu Ser His Gly Gln Ala Thr Asn Phe Ala Trp Gln His Asp Ala Arg
115 120 125
Trp His Ala Asn Asn Thr Ile Thr Leu Phe Asp Asn Ala Ala His Ser
130 135 140
Asn Ser Asp Pro Asp Ser Glu Ser Arg Gly Met Val Ile Gln Leu Asp
145 150 155 160
Leu Ser Gln Arg Thr Ala Glu Leu Leu Ala Ala Tyr Tyr His Pro Gln
165 170 175

```
Gln Met Arg Ser Val Ser Gln Gly Asn Val Gln Ile Leu Asp Glu Ser
            180                 185                 190
Gly Arg Val Leu Val Gly Trp Gly His Ser Ala Ala Phe Thr Glu Tyr
        195                 200                 205
Thr Ala Asp Gly Asp Leu Leu Cys Asp Val His Phe Ala Ala Ser Ala
    210                 215                 220
Phe Phe Ser Phe Gly Arg Val Val Ser Tyr Arg Ala Ser Lys Gly Thr
225                 230                 235                 240
Trp Val Gly Arg Pro Leu Thr Ile Pro Asp Ala Ala Val Met Gly Asp
                245                 250                 255
Arg Val Tyr Val Ser Trp Asn Gly Ala Thr Glu Val Val Ala Trp Arg
            260                 265                 270
Leu Glu Val Trp Asp Ala Arg Ala Val Glu Asp Ser Thr Phe Asp Val
        275                 280                 285
Val Ala Gln Phe Ala Lys Thr Gly Phe Glu Thr Val Ile Glu Ile Pro
    290                 295                 300
Glu Glu Leu Gly Ser Pro Leu Phe Arg Leu Ala Ala Leu Asp Ala Glu
305                 310                 315                 320
Gly Asn Ala Leu Gly Tyr Thr Glu Val Leu Gln Lys Asp Gln Gly Val
                325                 330                 335
Asp Val Asp Glu Leu Leu Asp Leu His Asn Trp Ile Val Ala Ala Ala
            340                 345                 350
Phe Ile Ile Ser Val Gly Gly Leu Leu Leu Gly Leu Tyr Gln Cys Cys
        355                 360                 365
Gly Cys Cys Gln Ile Leu Pro Arg Cys Arg Arg Arg Pro Asn Glu Tyr
    370                 375                 380
Gln Leu Val Ala Phe Gly Asp Asn Asp Asn Gly Glu Asn Asp Pro Val
385                 390                 395                 400

<210> 37911
<211> 107
<212> PRT
<213> A.fumigatus

<400> 37911
Met Thr Arg Ser Val Lys His Thr Tyr Leu Cys His Arg Arg Pro Thr
1               5                   10                  15
Ser Thr Ser Arg Val Ser Ala Ser Arg Ser Ser Ala Gln Leu Ala Arg
            20                  25                  30
Arg Ile Leu Thr Gly Ala Val Ser Val Glu Asn Asn Lys Val Tyr Gln
        35                  40                  45
Thr Val Thr Met Asn Gly Glu Val Val Ser Gln Gln Ser Asp Gly Lys
    50                  55                  60
His His Pro Leu Ser Ser Arg Ser Ala Leu Thr Val Ser Ala Leu Asp
65                  70                  75                  80
Asn Asp Leu Lys Tyr Leu Tyr Ser Ser Asn Glu Cys Tyr Thr Gly Ser
                85                  90                  95
Gly Asn Cys Gly Leu Leu Gln Gly Tyr Ser Met
            100                 105

<210> 37912
<211> 75
<212> PRT
<213> A.fumigatus

<400> 37912
```

```
Phe Leu Val Ser Ala Ala Val Arg Ile Lys Thr Asn Arg Ala Glu Ile
1               5                   10                  15
Thr Asn Val Thr Val Thr Leu Ser Ala Ala Asp Glu Ser Phe Gly Lys
            20                  25                  30
Thr Met Ala Leu Phe Ser Cys Thr Asp Ala Gly Phe Ala Thr Thr Asp
        35                  40                  45
Asn Gly Arg Thr Trp Tyr Thr Asp Tyr Ile Ala Ile Gln Glu Ile Asp
    50                  55                  60
Phe Asp Ser Ser Ser Asp Ala Ser Val Gln Glu
65                  70                  75
```

<210> 37913
<211> 165
<212> PRT
<213> A.fumigatus

<400> 37913

```
Pro Ile Arg Gly Ser Gly His Phe Tyr Pro Ala Asn Ser Val Phe Leu
1               5                   10                  15
Val Met Asp Phe Leu Glu His Asp Leu Lys Thr Leu Leu Asp Asp Met
            20                  25                  30
Arg Glu Pro Phe Leu Pro Ser Glu Ile Lys Thr Leu Met Leu Gln Ile
        35                  40                  45
Leu Ser Gly Val Glu Phe Leu His Ser His Trp Ile Met His Arg Asp
    50                  55                  60
Leu Lys Thr Ser Asn Leu Leu Met Asn Asn Arg Gly Glu Ile Lys Ile
65                  70                  75                  80
Ala Asp Phe Gly Met Ala Arg Tyr Tyr Gly Asp Pro Pro Pro Lys Leu
                85                  90                  95
Thr Gln Leu Val Val Thr Leu Trp Tyr Arg Ser Pro Glu Leu Leu Leu
            100                 105                 110
Gly Ala Glu Lys Tyr Gly Pro Glu Ile Asp Met Trp Ser Ile Gly Cys
        115                 120                 125
Ile Phe Gly Glu Leu Leu Thr Lys Glu Pro Leu Leu Gln Gly Lys Asn
    130                 135                 140
Glu Val Asp Gln Val Ser Lys Val Lys His Pro Leu Ser Phe Tyr Ile
145                 150                 155                 160
Gln Ile Arg Ser Cys
                165
```

<210> 37914
<211> 167
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (26),(32)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37914

```
Asn Thr Arg Phe His Ser Thr Phe Arg Ser Val Arg Ala Asp Arg His
1               5                   10                  15
Ile Gln Ile Phe Ala Leu Thr Ala Phe Xaa Ile Gln Gln Thr Trp Xaa
            20                  25                  30
Gly Phe Arg Ser Leu Pro Asn Gly Lys Ser Phe Arg Leu Pro Pro Thr
```

```
        35                  40                  45
Ser Thr Ser Gly Leu Thr Glu Asn Pro Pro Leu Leu Pro Arg Ser Lys
    50                  55                  60
Phe Pro Phe Leu Thr Asn Ser Gly Leu Arg Leu Leu Ser Ser Leu Leu
65                  70                  75                  80
Ala Leu Asn Pro Ser Ala Arg Pro Ser Ala Gln Glu Cys Leu Ser His
                85                  90                  95
Lys Tyr Phe Arg Glu Asp Pro Arg Pro Lys Pro Lys Glu Met Phe Pro
            100                 105                 110
Thr Phe Pro Ser Lys Ala Gly Met Glu Arg Arg Arg Arg Arg Glu Thr
        115                 120                 125
Pro Glu Ala Pro Lys Arg Gly Gln Glu Ala Pro Ala Leu Asp Phe Ala
    130                 135                 140
Ser Val Phe Gly Gly Gln Ser Ser Gly Asp Thr Gly Glu Thr Gly Ala
145                 150                 155                 160
Gly Phe Thr Leu Arg Leu Gly
                165
```

<210> 37915
<211> 65
<212> PRT
<213> A.fumigatus

<400> 37915

```
Arg Asp Leu Ala Gly Ala Leu Glu Ile Gly Asp Gly Val Arg Pro Lys
1               5                   10                  15
Phe Cys Tyr Ser Asp Ser Val Thr Ile Thr Ala Arg Leu Tyr His Leu
            20                  25                  30
Leu Pro Asp Phe Ile Ser Gln Leu Asn Ala Asp Leu Asn Val Thr His
        35                  40                  45
Gln Arg His Tyr Ser His Gln Ser Ala Lys Ser Thr Gly Phe Gly Phe
    50                  55                  60
Ser
65
```

<210> 37916
<211> 250
<212> PRT
<213> A.fumigatus

<400> 37916

```
Ser Phe Ile Gly Ala Met Ser Ala Pro Thr Lys Ser Arg Trp Ala Ala
1               5                   10                  15
Glu Asp Pro Glu Asp Asp Ala Ile Ile Ala Gln Arg Lys Arg Glu Lys
            20                  25                  30
Glu Glu Lys Arg Arg Ala Lys Ala Glu Lys Gln Arg Gln Leu Glu Glu
        35                  40                  45
Gln Ala Arg Leu Gln Thr Ala Gln Ala Lys Gln Gln Gln Gln Ala Asp
    50                  55                  60
Ala Leu Asn Gly Asp Ser Glu Ala Pro Pro Lys Lys Arg Arg Arg Leu
65                  70                  75                  80
Ser Asn Glu Gln Pro Gln Thr Ser Ala Val Ser Glu Ser Ala Ala Lys
                85                  90                  95
Ala Pro Ala Glu Gln Thr Arg Ser Thr Leu Leu Arg Phe Pro Gly Pro
            100                 105                 110
Glu Trp Gly Pro Cys Arg Leu Val Asp Asn Phe Glu Arg Leu Asn His
```

```
        115                 120                 125
Ile Glu Glu Gly Ser Tyr Gly Trp Val Ser Arg Ala Lys Asp Ile Thr
    130                 135                 140
Thr Gly Glu Val Val Ala Leu Lys Lys Leu Lys Met Glu Asn Ser Pro
145                 150                 155                 160
Asp Gly Phe Pro Val Thr Gly Leu Arg Glu Ile Gln Thr Leu Leu Glu
                165                 170                 175
Ala Arg His Thr Asn Ile Val Tyr Leu Arg Glu Val Val Met Gly Thr
            180                 185                 190
Lys Met Asp Glu Tyr Ala Leu Pro Ser Tyr Pro Leu Pro Pro Gly Phe
        195                 200                 205
Gln Cys Pro Leu Pro Ala Leu Val Leu Leu Pro Pro Arg Lys Val Gln
    210                 215                 220
Asp Thr Pro Val Leu Thr Asn Ser Gly Leu Trp Ala Leu Leu Ser Arg
225                 230                 235                 240
Gln Gln Cys Ile Pro Arg His Gly Phe Pro
                245                 250
```

<210> 37917
<211> 159
<212> PRT
<213> A.fumigatus

<400> 37917

```
Tyr Arg Ile Arg Ser Val Asp Trp His Ala Trp Cys Arg Cys Leu Arg
1               5                   10                  15
Asn Met Thr Met Val Asp Leu Thr Ile Asn Gly Leu Ala Pro Gly Lys
            20                  25                  30
Tyr Trp Ala Thr Val Arg Glu Ala Gly Asp Ile Ser Arg Gly Ala Glu
        35                  40                  45
Ser Thr Gly Gly Ile Trp Glu Ala Leu Lys Ala Lys Val Met Gly Ala
    50                  55                  60
Glu Ala Pro Lys Glu Pro Arg Gly Val Phe Gly Ser Val Asp Val Asp
65                  70                  75                  80
Lys His Gly Arg Gly Asn Val Phe Leu Asp Arg Pro Val Ala Ile Trp
                85                  90                  95
Glu Leu Ile Gly Arg Ser Met Val Val Ser Lys Ser Gln Glu Gly Pro
            100                 105                 110
Phe Gln Arg Glu Asp Pro Asp Thr Leu Val Gly Val Ile Ala Arg Ser
        115                 120                 125
Ala Gly Val Trp Asp Asn Asp Lys Thr Val Cys Ser Cys Ser Gly Lys
    130                 135                 140
Asn Val Trp Gln Glu Arg Gln Glu Gln Val Ser Gln Gly Met Leu
145                 150                 155
```

<210> 37918
<211> 71
<212> PRT
<213> A.fumigatus

<400> 37918

```
Phe Met Phe Val Ile Pro Gly Val Lys Arg Val Glu Ala Asn Leu Lys
1               5                   10                  15
Asp Gln Leu Val Leu Ile Glu Gly Thr Ala Pro Pro Ser Ser Ile Val
            20                  25                  30
Thr Ala Ile Gln Ala Thr Gly Arg Asp Ala Ile Leu Arg Gly Ser Gly
```

```
        35                  40                  45
Thr Ser Asn Ser Val Leu Tyr Leu Pro Phe Ser Arg Gln Thr Cys Glu
    50                  55                  60
Gly Gly Thr Asp Leu Val Val
65                  70
```

<210> 37919
<211> 70
<212> PRT
<213> A.fumigatus

<400> 37919

```
Lys Gly Arg Pro Ser Arg Gly Leu Gly Arg Glu Ala Asp Gly Gly Leu
1               5                   10                  15
Tyr Gly Arg Asn Arg Ser Ile Val Ser Thr Pro Asp Gly Tyr Phe Ser
            20                  25                  30
Glu Arg Phe Leu Ser Glu Thr Tyr Gly Met Ile His Thr Trp Leu Leu
        35                  40                  45
Gln Ser Ser Ser Leu Gly Ala Glu Arg Asp Ser Lys Gln Asp Val Leu
    50                  55                  60
Glu Ser Arg Trp Ala Lys
65                  70
```

<210> 37920
<211> 133
<212> PRT
<213> A.fumigatus

<400> 37920

```
Gln Phe Ala Asn Pro Glu Val Gln Ala Pro Ala Leu Ser Thr Pro Thr
1               5                   10                  15
Asp Glu Met Phe Trp Ser Pro Glu Asp Pro Ser Lys Pro Asn Leu Gln
            20                  25                  30
Phe Leu Lys Gln His Phe Tyr Arg Glu Gly Arg Leu Thr Glu Glu Gln
        35                  40                  45
Ala Leu Trp Ile Ile His Ala Gly Thr Gln Ile Leu Arg Ser Glu Pro
    50                  55                  60
Asn Leu Leu Glu Met Asp Ala Pro Ile Thr Val Cys Gly Asp Val His
65                  70                  75                  80
Gly Gln Tyr Tyr Asp Leu Met Lys Leu Phe Glu Val Gly Gly Asp Pro
                85                  90                  95
Ser Glu Thr Arg Tyr Leu Phe Leu Gly Asp Tyr Val Asp Arg Gly Tyr
            100                 105                 110
Phe Ser Ile Glu Val Arg Asp Asp Phe Leu Gly Arg Leu Met Ile Gly
        115                 120                 125
Glu Ala Asp Ile Gly
    130
```

<210> 37921
<211> 96
<212> PRT
<213> A.fumigatus

<400> 37921

```
Cys Val Leu Tyr Leu Trp Ala Leu Lys Ile Trp Tyr Pro Asn Ser Leu
1               5                   10                  15
```

```
Trp Leu Leu Arg Gly Asn His Glu Cys Arg His Leu Thr Asp Tyr Phe
            20                  25                  30
Thr Phe Lys Leu Glu Cys Lys His Lys Tyr Ser Glu Arg Ile Tyr Glu
        35                  40                  45
Ala Cys Ile Glu Ser Phe Cys Ala Leu Pro Leu Ala Ala Val Met Asn
    50                  55                  60
Lys Gln Phe Leu Cys Ile His Gly Gly Leu Ser Pro Glu Leu His Thr
65                  70                  75                  80
Leu Glu Asp Ile Lys Ser Val Arg Ser Lys Leu Leu Glu Cys Ser Phe
                85                  90                  95
```

<210> 37922
<211> 70
<212> PRT
<213> A.fumigatus

<400> 37922

```
Val Leu Asn Phe Thr Leu Ser Lys Ile Ser Asn Arg Tyr Val Gln Ser
1               5                   10                  15
Cys Leu Asn Val Pro Phe Ser Ser Phe Thr His Val Ser Leu Gln Ile
            20                  25                  30
Asp Arg Phe Arg Glu Pro Pro Thr His Gly Leu Met Cys Asp Ile Leu
        35                  40                  45
Trp Ala Asp Pro Leu Glu Glu Phe Gly His Leu His His Arg Arg Arg
    50                  55                  60
Arg Ile Arg Ser Ser Gly
65                  70
```

<210> 37923
<211> 688
<212> PRT
<213> A.fumigatus

<400> 37923

```
Leu Tyr Val Cys Cys Ile Asp Ser Ala Asn Leu Thr Ile Cys Asp Thr
1               5                   10                  15
Gly Ala Gly Ile Ala Gly Ile Leu Lys Ala Val Leu Ala Met Arg His
            20                  25                  30
Lys Thr Ile Pro Pro Asn Gln His Phe His Asn Leu Asn Pro Ser Val
        35                  40                  45
Lys Pro Ser Phe Lys His Leu Ser Ile Ala Thr Ser Pro Gln Pro Trp
    50                  55                  60
Pro Val Val Pro Pro Asp Thr Pro Leu Arg Ala Ser Val Asn Gly Phe
65                  70                  75                  80
Gly Ser Gly Gly Thr Asn Cys His Ala Ile Val Glu Ser Tyr Val Pro
                85                  90                  95
Glu Ile His Asp Asn Gly Pro Trp Gly Lys Pro Lys Glu Met Arg Gln
            100                 105                 110
Val Pro Asn Gly Val Ala Ala Pro Glu Thr Asp Phe Ser Pro Ile Pro
        115                 120                 125
Leu Ile Phe Ser Ala Ser Ser Gly Thr Ala Leu Arg Ala Met Leu Glu
    130                 135                 140
Arg Tyr Gln Glu Tyr Leu Glu Arg Thr Glu Val Ser Leu Leu Arg Leu
145                 150                 155                 160
Ala Met Thr Leu Asn Ser His Arg Ser Thr Leu Pro Val Arg Val Ser
                165                 170                 175
```

```
Ile Pro Gly Thr Ser Lys Ala Asp Val Leu Ala Ala Ile Arg Thr Gln
            180                 185                 190
Leu Ala Lys Val Gly Ser Asn Pro Gly Ala Glu Ile Gly Thr Arg Ser
        195                 200                 205
Ser Val Pro Glu Phe Asp His Val Arg Arg Pro Lys Ile Leu Gly Val
    210                 215                 220
Phe Thr Gly Gln Gly Ala Gln Trp Ala Gly Met Gly Gln Gly Leu Met
225                 230                 235                 240
Ala Lys Ser Ala Leu Phe Arg Gln Val Ile Glu Val Met Glu Glu Ala
                245                 250                 255
Met Ala Gln Leu Pro Asp Gly Pro Glu Trp Ser Leu Lys Glu Glu Ile
            260                 265                 270
Met Lys Pro Pro Lys Thr Ser Arg Leu Gly Glu Ala Glu Ile Ser Leu
        275                 280                 285
Pro Val Cys Ala Ala Leu Gln Val Gly Leu Val Lys Val Leu Arg Ser
    290                 295                 300
Ala Gly Ile Thr Phe Ser Met Val Val Gly His Ser Gly Gly Glu Ile
305                 310                 315                 320
Gly Ser Ala Tyr Ala Ala Gly Lys Ile Ser Glu Val Asp Ala Ile Lys
                325                 330                 335
Ile Ala Tyr Tyr Arg Gly Val Tyr Thr Lys Leu Ala Ile Gly Lys Asp
            340                 345                 350
Gly Lys Lys Gly Gly Met Ile Ala Val Gly Phe Gly Tyr Glu Asp Gly
        355                 360                 365
Leu Asn Phe Cys Ala Met Glu Gln Phe Ala Asp Arg Leu Thr Val Ala
    370                 375                 380
Ala Ser Asn Ser Pro Lys Ser Val Thr Leu Ser Gly Asp Leu Asp Ala
385                 390                 395                 400
Val His Glu Ala Lys Glu Leu Leu Asp Ala Glu Gly Val Phe Asn Arg
                405                 410                 415
Val Leu Arg Leu Asp Thr Ala Tyr His Ser Pro His Met Tyr Pro Cys
            420                 425                 430
Ala Ala Pro Tyr Leu Ala Ala Ile Glu Arg Cys Gly Leu Val Ala Gly
        435                 440                 445
Lys Ser Asn Gly Thr Ala Trp Ala Ser Ser Val Tyr Asp Asp Asn Arg
    450                 455                 460
Met Met Thr Ser Ala Gln Asp Lys Asp Leu Glu Ala Ala Tyr Trp Lys
465                 470                 475                 480
Asp Asn Leu Ile Gly Arg Val Leu Phe Ser Gln Ala Val Glu Arg Ala
                485                 490                 495
Leu Asp Glu Gly Asn Gly Asp Phe Asp Leu Ala Leu Glu Ile Gly Pro
            500                 505                 510
His Pro Ser Leu Lys Gly Pro Thr Leu Glu Thr Ile Arg His Lys Ile
        515                 520                 525
Gly Ser Glu Ile Pro Tyr Ser Gly Val Leu Asp Arg Lys Ala Asp Asp
    530                 535                 540
Ile Leu Ala Leu Ser Thr Ala Leu Gly Phe Ser Trp Leu Thr Leu Gly
545                 550                 555                 560
Ser Gly Val Val Asp Phe Ala Gly Tyr Val Ser Gly Phe Asp Pro Ser
                565                 570                 575
Asn Ala Ser Ile Leu Asn Ala Pro Ala Leu Pro Asp Leu Pro Thr Tyr
            580                 585                 590
Pro Trp Asp His Lys Lys Val Leu Tyr Arg Glu Ser Arg Leu Asn Lys
        595                 600                 605
Asn Val Arg His Arg Val Asp Pro Pro His Pro Leu Leu Gly Ser Arg
    610                 615                 620
```

```
Thr Pro Asp Asp Thr Asp Tyr Glu Pro Arg Trp Arg Asn Phe Leu Ile
625                 630                 635                 640
Met Glu Glu Leu Pro Trp Leu Arg Asp His Cys Val Gln Asp Gln Ile
                645                 650                 655
Ile Val Pro Ala Ala Thr Tyr Ser Val Met Ala Leu Glu Ala Ala Lys
            660                 665                 670
Ser Phe Ala Gly Val Phe Thr Thr Arg Trp Lys Ile Arg Asn Trp Tyr
        675                 680                 685
```

<210> 37924
<211> 380
<212> PRT
<213> A.fumigatus

<400> 37924

```
Val Asp Asn Asp Ser His Cys Ser Leu Asn Ala Met Val Tyr Thr His
1               5                  10                  15
Ser Pro Lys Glu Pro Ile Ala Ile Ile Gly Thr Gly Cys Arg Ile Pro
            20                  25                  30
Gly Gly Ser Thr Ser Pro Ser Lys Leu Trp Asp Leu Leu Tyr Ser Pro
        35                  40                  45
Arg Asp Leu Thr Arg Glu Val Pro Ala Glu Ser Arg Phe Asn Pro Lys
    50                  55                  60
Gly Phe Tyr Asn Val Asp Gly Glu His His Gly Ala Ser Asn Ala Thr
65                  70                  75                  80
Asn Val Tyr Phe Ile Glu Glu Asp Pro Arg Tyr Phe Asp Ala Gly Phe
                85                  90                  95
Phe Ser Ile Ala Pro Arg Glu Ala Glu Ser Ile Asp Pro Gln Gln Arg
            100                 105                 110
Leu Leu Leu Glu Thr Val Tyr Glu Ala Met Glu Asn Ala Gly Leu Thr
        115                 120                 125
Leu Asn Gly Met Arg Gly Ser Ala Thr Ser Ala Tyr Met Gly Ala Met
    130                 135                 140
Ser Ala Asp Tyr Thr Asp Thr Gln Leu Arg Asp Ile Glu Asn Val Ser
145                 150                 155                 160
Lys Tyr Met Ile Thr Gly Thr Ser Arg Ala Leu Leu Ala Asn Arg Leu
                165                 170                 175
Ser Tyr Phe Phe Asp Trp Lys Gly Pro Ser Ile Ser Val Asp Thr Ala
            180                 185                 190
Cys Ser Ser Ser Leu Ala Ala Val His Leu Gly Val Gln Ala Leu Arg
        195                 200                 205
Ala Gly Glu Cys Thr Ile Ser Cys Val Gly Gly Ser Asn Ile Ile Leu
    210                 215                 220
Asn Pro Asp Cys Tyr Leu Ala Ala Thr Ser Leu His Leu Leu Ser Pro
225                 230                 235                 240
Thr Gly Arg Ser Gln Met Trp Asp Gln Ala Ala Asp Gly Tyr Ala Arg
                245                 250                 255
Gly Glu Gly Val Cys Val Phe Phe Met Lys Thr Leu Ser Gln Ala Leu
            260                 265                 270
Arg Asp Gly Asp Arg Ile Asp Ala Leu Leu Arg Glu Thr Cys Val Asn
        275                 280                 285
Ser Asp Gly Arg Thr Gln Gly Ile Ala Leu Pro Ser Ala Glu Ala Gln
    290                 295                 300
Val Ser Leu Met Arg Thr Ala Tyr Lys Asn Ala Gly Leu Asp Leu Ser
305                 310                 315                 320
Lys Ala Glu Asp Arg Pro Gln Tyr Ile Glu Ala His Gly Glu Pro Leu
```

```
                325                 330                 335
Val Ile Asp Lys Phe Phe Val Thr Asn Pro Phe Val Ser Leu Arg Asn
            340                 345                 350
Arg Tyr Ser Ser Gly Arg Ser Gln Arg Ser Ile Arg His Cys His His
        355                 360                 365
Val Phe Pro Ala Trp Arg Arg Pro Gln Ser Ser Thr
    370                 375                 380
```

<210> 37925
<211> 72
<212> PRT
<213> A.fumigatus

<400> 37925

```
Asn Pro Glu Met Lys Gln Pro Ala Leu Ile Pro Gly Lys Thr Asp Glu
1               5                   10                  15
Ser Arg Val Gly Glu Ile Phe Gly Ile Ser Ile Ala Phe Thr Cys Thr
            20                  25                  30
Thr Val Val Ile Val Val Leu Arg Ile Phe Thr Arg Leu Lys Tyr Val
        35                  40                  45
Asn Gln Leu Arg Ser Asp Asp Tyr Ile Ile Leu Gly Ser Leu Val Ser
    50                  55                  60
Phe Leu Pro Leu Asn Cys Val Asp
65                  70
```

<210> 37926
<211> 151
<212> PRT
<213> A.fumigatus

<400> 37926

```
Leu Phe Tyr Ala Ala Glu Ile Ala Tyr Tyr Val Ile Val Gly Val Thr
1               5                   10                  15
Lys Ile Ser Leu Leu Ile Phe Tyr Leu Arg Ile Phe Thr Thr Ser Ser
            20                  25                  30
Phe Asn Phe Leu Arg Lys Leu Ser Tyr Val Leu Leu Val Ala Ile Ser
        35                  40                  45
Leu Leu Thr Val Ile Tyr Val Val Val Cys Val Phe Gln Cys Arg Pro
    50                  55                  60
Ile Ala Leu Ala Trp Asp Lys Gly Met Lys Gly Thr Cys Ile Asn Val
65                  70                  75                  80
Thr Val Phe Phe Tyr Cys His Ala Asp Leu Asn Ile Leu Ala Asp Phe
                85                  90                  95
Cys Ile Tyr Ile Met Pro Met Pro Leu Phe Trp Thr Val Lys Arg Ser
            100                 105                 110
Ala Lys Glu Arg Ala Ala Leu Val Gly Ile Phe Ala Val Gly Gly Phe
        115                 120                 125
Val Cys Leu Thr Gly Ile Ile Arg Leu Thr Ser Leu Lys Thr Ala Met
    130                 135                 140
Ala Ser Leu Asp Pro Ser Cys
145                 150
```

<210> 37927
<211> 127
<212> PRT
<213> A.fumigatus

<400> 37927
His Val Lys Leu Asp Gly Ala Ala Leu Gly Phe Ser Leu Ala Ile Gly
1 5 10 15
Gln Val Cys Cys Ser His Ile Ser Arg Arg Ala Ala Asp Leu Pro Asn
20 25 30
Ile Arg Thr Leu Ile Leu His Ser Gln Asp Ala Ile Gln Leu Leu Thr
35 40 45
Val Leu Pro Leu Ala Ala Val Ala Phe Ala Gln Cys Lys Phe Ser Ser
50 55 60
Val Ile Asn Ser Gln Leu Thr Leu Leu Gly Asp Asp Asp Val Ala Val
65 70 75 80
Pro Lys Ala Val Ser Leu Leu Ser Gln Gln Glu Ile Phe Leu Leu Ile
85 90 95
Asp Pro Tyr Glu Leu Val Asp Gly Lys Leu Asp Cys Tyr Val Asn Phe
100 105 110
Tyr Leu Leu Glu Pro Cys Ser Ile Ile Asn Gly Arg Val Glu Arg
115 120 125

<210> 37928
<211> 241
<212> PRT
<213> A.fumigatus

<400> 37928
Thr Ile Pro Asn Glu Ile Arg Ala Asn Cys Val Ile Asp Ser Gly Ser
1 5 10 15
Ser Leu Ser Pro Pro Phe Asp Lys Tyr Lys Ser Arg Thr Leu Val Thr
20 25 30
Ser Pro Glu His Gln Thr Tyr Ala Lys Gln Arg Gln Ser Thr Met Thr
35 40 45
Ser Pro Phe Ser Ser Thr Leu Val Ser Pro Ala Glu Phe His Ala Ala
50 55 60
Val Asn Ser Pro Thr Asn Thr Arg Arg Ile Val Pro Val Ala Ala Gly
65 70 75 80
Arg Arg Thr Val His Thr Pro Ala Tyr His Ala Gln His Ile Pro Asn
85 90 95
Ser Val Tyr Val Pro Ala Ser Thr Thr Gln His Gln His Ala Asn Glu
100 105 110
Arg Ser Phe Phe Asp Met Asp Leu Ile Arg Asp Thr Thr Ser Pro Tyr
115 120 125
Pro Gln Met Leu Pro Thr Ala Ala His Phe Ala Ser Cys Ile Ala Ala
130 135 140
Val Gly Ile Thr Lys Asp Asp Val Leu Val Ile Tyr Asp Ala Val Asp
145 150 155 160
Val Gly Ile Tyr Ser Ser Pro Arg Val Ala Trp Met Phe Arg Phe Phe
165 170 175
Gly His Gln Ala Ala His Val Leu Asn Asn Phe Arg Val Tyr Val Gln
180 185 190
Leu Gly Tyr Pro Val Ala Thr Gly Glu Met Arg Pro Leu Pro Ser Val
195 200 205
Gly Glu Tyr Arg Val Ser Pro Pro Asp Ser Asp Arg Val Ile Ala Phe
210 215 220
Glu Glu Leu Arg Glu Leu Val Leu Gly Gly Gly Glu Gly Phe Gln Ile
225 230 235 240
Asp

<210> 37929
<211> 81
<212> PRT
<213> A.fumigatus

<400> 37929
Lys Ser Phe Tyr Phe Arg Pro Ile Val Gln Ser Leu Leu Ser Asn Lys
1 5 10 15
His Ile Ser Thr Cys Lys Ile Ser Arg Gly Gln Gly Asp Gly Val Pro
20 25 30
Lys Ala Ser Ile Thr Ala His Leu Thr Thr Glu Ala Ser Ala Ser Asn
35 40 45
Leu Leu Leu Lys Gly Arg Cys Ser Ile Gly Ser Tyr Ser Ile Lys Leu
50 55 60
Ser Arg Lys Ala Leu Asn His Pro Thr Ile Val His Val Ile Asp Val
65 70 75 80
Asn

<210> 37930
<211> 209
<212> PRT
<213> A.fumigatus

<400> 37930
Asn Thr Met Ser Thr Pro Gly Ile Gly Gly Asp Phe Gln Leu Phe Ser
1 5 10 15
Pro Leu Glu Ser Thr Arg Arg Ile Ser Gln Gly Asn Ser Leu Ser Val
20 25 30
Asp Gln Ser Ser Thr Asp Asp Ala Ser Gln Asp Trp Thr Gln Trp Met
35 40 45
Arg Trp Asp Asp Glu Gln Ala Phe Pro Glu Thr Ala Asn Ala Ser Pro
50 55 60
Ser Ser Pro Phe Asp Leu Ala Phe Ile Ser Pro Ser Ala Ser Ser Gly
65 70 75 80
Arg Glu Ala Ser Asp Ala Met His Lys Asp Phe Ser Pro Asp Ile Ser
85 90 95
Leu Asp Phe Lys Ser Pro Ser Leu Gly Phe Phe Pro Gly Gly Asp Leu
100 105 110
Asn Thr Asn Val Ser Pro Gln Pro Asp His Val Gly Ala Gly Ser Leu
115 120 125
Ser Val His Ser Asn Ser Pro Leu Ser Ser Ile Gly Ala Ser Arg Lys
130 135 140
Arg Lys Thr Gly Ser Asp Asp Asp Gly Ser Thr Met Thr Ser Met Phe
145 150 155 160
Lys Ala Lys Gln Ala Pro Ser Lys Lys Arg Ala His Asn Val Ile Glu
165 170 175
Lys Arg Tyr Arg Ala Asn Leu Asn Glu Lys Ile Ala Glu Leu Arg Asp
180 185 190
Ser Val Pro Ser Leu Arg Ala Ser Tyr Lys Gln Gly Lys Arg Gln Leu
195 200 205
Arg

<210> 37931
<211> 730
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (718)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37931
Glu Thr Val Cys Leu Val Tyr Gly Pro Pro Thr Ser Arg Ala Asn Gly
1 5 10 15
Asn Ser Gly Asp Asp Asp Asp Asp Gly Val Thr Ser Ala Ser Lys Leu
20 25 30
Asn Lys Ala Ser Ile Leu Ser Lys Ala Thr Glu Tyr Ile Arg His Leu
35 40 45
Glu Ile Arg Asn Lys Arg Leu Glu Glu Glu Asn Thr Ala Leu Lys Ile
50 55 60
Arg Leu Arg Gln Leu Asp Lys Ala Ala Asp Gln Ile Val Thr Ser Ala
65 70 75 80
Ala Ser Val Ser Ser Pro Ser Asp Cys Thr Val Ser Thr Glu Ser Gly
85 90 95
Ala Ser Ser Ser Pro Ser Val Phe Ser His Ala Glu Asp Val Pro Ser
100 105 110
Asp His Ser Pro Thr Ser Ser His Pro Pro Glu Gly Leu Ile Lys Val
115 120 125
Pro Asp Ala Trp Lys Arg Met Arg Ala Ala Gly Ser Asn Glu Ser Pro
130 135 140
Tyr Ser Gln Ser Tyr Ile Gln Tyr Lys Lys Thr Asp Ser His Ser Ser
145 150 155 160
Gln Ser Gly Gly Gly Arg Met Arg Ser His Leu Pro Asn Lys Tyr Met
165 170 175
Leu Gly Ala Leu Ala Gly Leu Met Val Leu Glu Gly Leu Gly Thr Glu
180 185 190
Lys Lys Thr Glu Ser Thr Ala Lys Gly Leu Leu Ala Val Pro Leu Asn
195 200 205
Leu Leu Asn Arg Val Gln Leu Pro Ser Glu Val Tyr Ser Ser Ala Ala
210 215 220
Phe Gln Tyr Phe Trp Ser Ser Trp His Ala Arg Ala Ile Ser His Phe
225 230 235 240
Leu Met Leu Ala Ile Leu Val Val Gly Ser Ala Phe Ile Val Phe Val
245 250 255
Tyr Leu Phe Asn Ser Asp Pro Arg Arg Gln Tyr Ser Ala Ser Lys Val
260 265 270
Ala Pro Asp Val Thr Leu Ser Ser Cys Asn Phe Arg Arg Gln Ala Trp
275 280 285
Leu Thr Ser Ile Gln Arg Val Gly Val Pro Arg His Arg Phe Phe His
290 295 300
Glu Trp Tyr Val Val Thr Ser Arg Cys Phe Glu Tyr Val Leu Arg Cys
305 310 315 320
Leu Leu Gly Trp Lys Leu Tyr Ser Leu Val Thr Gly Val Thr Glu Glu
325 330 335
Asp Glu Lys Gly Arg Val Lys Thr Trp Asp Ile Ala Ile Asp Ala Gln
340 345 350
Leu Ala Gly Gly Asp Ala Glu Ile Ser Lys Ser Arg Leu Val Leu Thr

```
        355                 360                 365
Ile Phe Ala Ala Gly Thr Leu Pro Arg Ser Pro Met Arg Met Met Leu
    370                 375                 380
Lys Ala Leu His Cys Arg Ile Leu Met Trp Arg Val Gly Glu Pro Gly
385                 390                 395                 400
Ser Trp Thr Phe Asn Val Ser Asn Asp Val Ala Arg Ser Leu Ala Arg
                405                 410                 415
Tyr Gln Trp Asp Leu Ala Arg Lys Met Asn Ala Ala Leu Pro Lys Asp
            420                 425                 430
His Pro Asp Ser Leu Pro Ser His Leu Ala Thr Leu Leu Lys Ile Asp
        435                 440                 445
Cys Asp Asp Val Met Ile Asp Thr Ile Ile Gln Arg Ala Ala Asn Leu
    450                 455                 460
Thr Trp Asn Arg Pro Thr Gln Glu Gly Thr Asp Asp Asp Glu Ala Leu
465                 470                 475                 480
Leu Asp Val Val Glu Glu Asp Pro Ala Ile Gln Ser Ser Leu Asp Ala
                485                 490                 495
Leu Ala Ala Trp Trp Ser Ser His Leu Leu Gln Gly Ala Leu Leu Arg
            500                 505                 510
Tyr Phe Glu Ala Ser Ser Gly Gly Pro Asp Ala Lys Lys Ser Arg Asn
        515                 520                 525
Val Phe Lys Ser Lys Ile Lys Leu Ala Leu Asp Val Ala Pro Gln Pro
    530                 535                 540
Ser Ala Ala His Thr Arg Ala Leu Val Met Met Ala Val Phe Phe Glu
545                 550                 555                 560
Arg Asp Arg Val Ala Asn Ile Gly Ser Val Leu Ala Ala Leu Pro Lys
                565                 570                 575
Glu Lys Gly Lys Asn Lys Gln Asn Gln Ala Ser Asn Phe Leu Asp Ser
            580                 585                 590
Ser Leu Pro Ile Ser Val Arg Glu Glu Ile Ser Thr Ala Val Arg Cys
        595                 600                 605
Ala Met Ile Ala Ala Ile Phe Asn Ala Arg Ala Thr Gly Asp Thr Ser
    610                 615                 620
Leu Pro Ala Thr Phe Thr Val Glu Lys Ala Ile His Trp Tyr Asn Arg
625                 630                 635                 640
Leu Pro Leu Asp Pro Val Glu Leu Thr Leu Leu Glu Phe Ala Val Val
                645                 650                 655
Tyr His Leu Leu His Ile Leu Ala Ser Asp Ile Asp Tyr Leu Ala Ser
            660                 665                 670
Ser Asp Ser Thr Ala Pro Ser Ser Pro Met Ser Lys Ala Ser Asp Met
        675                 680                 685
Leu Ser Ser Ser Ser Asp Asp Gly Glu Asp Gly Ala Ser Gln Arg Asn
    690                 695                 700
Asn Asn Ile Ile Leu His Pro Met Pro Gln Leu Gly Pro Xaa Cys Phe
705                 710                 715                 720
Arg Ala Tyr Leu Leu Gly Ser His Cys Leu
                725                 730
```

<210> 37932
<211> 287
<212> PRT
<213> A.fumigatus

<400> 37932

```
Lys Asn Val Glu Glu Phe Ile Glu Glu Thr Asp Ser Arg Leu Gln Cys
1               5                   10                  15
```

```
Thr Thr Leu Glu Gln Asn Val Lys Asp Phe Gly Leu Thr Tyr Phe Gly
            20                  25                  30
Met Gly Asp Lys Arg Gln Gly Ile Val His Ile Ile Gly Pro Glu Gln
        35                  40                  45
Gly Phe Thr Leu Pro Gly Thr Thr Val Val Cys Gly Asp Ser His Thr
    50                  55                  60
Ser Thr His Gly Ala Phe Gly Ala Leu Ala Phe Gly Ile Gly Thr Ser
65                  70                  75                  80
Glu Val Glu His Val Leu Ala Thr Gln Thr Leu Leu Thr Arg Arg Ser
                85                  90                  95
Lys Asn Met Arg Ile Gln Val Asp Gly Glu Leu Pro Pro Gly Val Thr
            100                 105                 110
Ser Lys Asp Val Val Leu His Ile Ile Gly Val Ile Gly Thr Ala Gly
        115                 120                 125
Gly Thr Gly Ala Val Ile Glu Phe Cys Gly Ser Val Ile Arg Gly Leu
    130                 135                 140
Ser Met Glu Ala Arg Met Ser Met Cys Asn Met Ser Ile Glu Ala Gly
145                 150                 155                 160
Ala Arg Ala Gly Met Ile Ala Pro Asp Glu Thr Thr Phe Glu Tyr Leu
                165                 170                 175
Lys Gly Arg Pro Leu Ala Pro Lys Tyr Asp Ser Ala Glu Trp Lys Lys
            180                 185                 190
Ala Val Ala Phe Trp Ser Ser Leu Ala Ser Asp Glu Gly Ala Val Tyr
        195                 200                 205
Asp Lys Thr Val Val Leu Asp Gly Lys Asp Ile Ile Pro Thr Val Ser
    210                 215                 220
Trp Gly Thr Ser Pro Gln Asp Val Val Pro Ile Thr Gly Val Val Pro
225                 230                 235                 240
Gly Pro Asp Asp Phe Glu Asp Glu Asn Arg Lys Val Ala Trp Gln Ala
                245                 250                 255
Cys Pro Arg Val His Gly Ser Arg Gly Trp His Pro Asp Thr Gly His
            260                 265                 270
Ser Arg Arg Gln Gly Val His Arg Leu Val His Gln Arg Ala Asp
        275                 280                 285
```

<210> 37933
<211> 62
<212> PRT
<213> A.fumigatus

<400> 37933

```
Val Ala Arg Gly Arg Leu Leu His Val Pro Gly His Glu Pro Arg His
1               5                   10                  15
Pro Leu Pro Pro Gly Ala Leu Arg Gln His Leu Gln Pro Gln Phe Arg
            20                  25                  30
Gly Ser Pro Gly Cys Trp Arg Pro His Ser Pro His Val Pro Arg His
        35                  40                  45
Gly Arg Cys Arg Cys His His Arg Pro Pro Cys Arg Cys Ala
    50                  55                  60
```

<210> 37934
<211> 517
<212> PRT
<213> A.fumigatus

<400> 37934

```
Leu Pro Ser Thr Thr Ala Pro Ser Gly Arg Arg Leu Ser Pro Ser Gly
1               5                  10                  15
Arg Ala Ser Arg Leu Met Arg Ala Leu Ser Thr Thr Lys Pro Trp Phe
            20                  25                  30
Leu Thr Ala Arg Ile Ser Phe Pro Pro Phe Pro Gly Val Leu Pro Arg
        35                  40                  45
Arg Thr Leu Phe Pro Ser Arg Ala Ser Phe Pro Asp Pro Thr Thr Ser
    50                  55                  60
Arg Thr Arg Thr Ala Arg Ser Pro Gly Lys Arg Ala Leu Glu Tyr Met
65                  70                  75                  80
Gly Leu Val Ala Gly Thr Arg Ile Gln Asp Ile Pro Val Asp Lys Val
                85                  90                  95
Phe Ile Gly Ser Cys Thr Asn Ala Arg Ile Glu Asp Leu Arg Ala Ala
            100                 105                 110
Ala Lys Val Val Arg Gly Lys Lys Val Ala Ala Asn Ile Lys Arg Ala
        115                 120                 125
Met Val Val Pro Gly Ser Gly Leu Val Lys Gln Gln Ala Glu Ala Glu
    130                 135                 140
Gly Leu Asp Arg Val Phe Thr Asp Ala Gly Phe Glu Trp Arg Glu Ala
145                 150                 155                 160
Gly Cys Ser Met Cys Leu Gly Met Asn Pro Asp Ile Leu Ser Pro Gln
                165                 170                 175
Glu Arg Cys Ala Ser Thr Ser Asn Arg Asn Phe Glu Gly Arg Gln Gly
            180                 185                 190
Ala Gly Gly Arg Thr His Leu Met Ser Pro Ala Met Ala Ala Ala Ala
        195                 200                 205
Ala Ile Thr Gly His Leu Ala Asp Val Arg Glu His Leu Thr Ala Ser
    210                 215                 220
Pro Leu Leu Ala Lys Ala Gln Pro His Leu Asp Ile Gln Glu Glu His
225                 230                 235                 240
Glu Asp Pro Thr Thr Glu Asp Glu Phe Asp Arg Ile Met Asp Met Pro
                245                 250                 255
Ala Asp Asn Glu Pro His Ala Asn Ser Ser Ala Ala Thr Ala Ala Ala
            260                 265                 270
Gly Ser Thr Ala Gly Leu Pro Lys Phe Thr Thr Leu Arg Gly Ile Ala
        275                 280                 285
Ala Pro Met Asp Arg Ser Asn Val Asp Thr Asp Ala Ile Ile Pro Lys
    290                 295                 300
Gln Phe Leu Lys Thr Ile Lys Arg Thr Gly Leu Gly Ser Ala Leu Phe
305                 310                 315                 320
Tyr Glu Leu Arg Tyr Asn Pro Ala Asp Gly Ser Glu Asn Lys Ser Phe
                325                 330                 335
Val Leu Asn Gln Glu Pro Tyr Arg Asn Ala Lys Ile Leu Val Val Thr
            340                 345                 350
Gly Pro Asn Phe Gly Cys Gly Ser Ser Arg Glu His Ala Pro Trp Ala
        355                 360                 365
Leu Leu Asp Phe Gly Ile Lys Cys Ile Ile Ala Pro Ser Phe Ala Asp
    370                 375                 380
Ile Phe Phe Asn Asn Thr Phe Lys Asn Gly Met Leu Pro Val Val Ile
385                 390                 395                 400
Ser Asp Pro Ala Val Leu Ala Thr Ile Ala Ala Glu Ala Ser Ala Gly
                405                 410                 415
Arg Glu Ile Glu Val Asp Leu Val Asn Gln Glu Ile Lys Asp Ala Ala
            420                 425                 430
Gly Ser Lys Leu Ala Ser Phe Glu Val Asp Ala Phe Arg Lys His Cys
        435                 440                 445
```

```
Leu Ile Asn Gly Leu Asp Asp Ile Gly Leu Thr Leu Gln Met Glu Asp
    450                 455                 460
Lys Ile Arg Ala Phe Glu Ala Lys Arg Thr Leu Glu Thr Pro Trp Leu
465                 470                 475                 480
Asp Gly Ser Gly Tyr Leu Lys Arg Gly Asn Arg Gly Gly Ala Thr Met
                485                 490                 495
Ile Gln Ala Ala Pro Val Pro Lys Thr Asn Arg Gly Asp Val Lys Thr
            500                 505                 510
Glu Pro Leu Glu Trp
        515
```

<210> 37935
<211> 134
<212> PRT
<213> A.fumigatus

<400> 37935

```
Arg Gln Gly Tyr His Ser His Arg Phe Leu Gly Tyr Phe Pro Ala Gly
1               5                   10                  15
Arg Cys Ser His His Gly Arg Arg Ser Arg Thr Arg Arg Leu Arg Gly
            20                  25                  30
Arg Glu Pro Gln Gly Arg Leu Ala Ser Val Pro Ser Ser Thr Trp Val
        35                  40                  45
Ser Trp Leu Ala Pro Gly Tyr Arg Thr Phe Pro Ser Thr Arg Cys Ser
    50                  55                  60
Ser Ala Arg Ala Pro Thr Arg Gly Leu Arg Ile Cys Ala Pro Arg Pro
65                  70                  75                  80
Arg Ser Ser Ala Ala Arg Arg Leu Pro Pro Ile Ser Ser Ala Pro Trp
                85                  90                  95
Leu Phe Pro Val Leu Val Trp Ser Ser Ser Arg Arg Lys Pro Arg Gly
            100                 105                 110
Leu Thr Ala Ser Ser Arg Met Leu Val Leu Ser Gly Ala Arg Pro Ala
        115                 120                 125
Ala Pro Cys Ala Trp Ala
    130
```

<210> 37936
<211> 157
<212> PRT
<213> A.fumigatus

<400> 37936

```
Thr Arg Ser Pro Thr Ala Thr Pro Arg Phe Ser Ser Leu Gln Ala Pro
1               5                   10                  15
Thr Leu Ala Ala Ala Ala Pro Ala Ser Thr Pro Pro Gly Pro Ser Leu
            20                  25                  30
Thr Leu Ala Ser Ser Ala Ser Ser Pro Pro Pro Ser Leu Ile Ser Ser
        35                  40                  45
Ser Thr Thr Pro Ser Arg Thr Ala Cys Cys Pro Ser Ser Ser Pro Thr
    50                  55                  60
Pro Pro Ser Ser Pro Pro Ser Pro Pro Arg Pro Pro Pro Ala Ala Arg
65                  70                  75                  80
Leu Lys Leu Thr Leu Ser Thr Arg Arg Ser Arg Thr Leu Pro Ala Pro
                85                  90                  95
Ser Ser Pro Pro Ser Arg Leu Thr Pro Ser Ala Ser Thr Ala Ser Ser
            100                 105                 110
```

```
Thr Ala Ser Thr Thr Ser Ala Leu Pro Ser Arg Trp Arg Thr Arg Ser
        115                 120                 125
Val Pro Ser Arg Gln Ser Ala Pro Ser Arg Pro Pro Gly Ser Thr Ala
    130                 135                 140
Ala Ala Thr Ser Ser Ala Val Thr Ala Ala Ala Pro Pro
145                 150                 155
```

<210> 37937
<211> 189
<212> PRT
<213> A.fumigatus

<400> 37937

```
Arg Thr Leu Asp Ala Leu His Ser Ala Tyr Cys His Asn Ser Leu Thr
1               5                   10                  15
Asp Ile Leu Ser Ala Ile Cys Leu Pro Ile Ala Ile Ile Leu Trp Ser
            20                  25                  30
Val Gly Leu Leu Val Phe Phe Gly Leu Pro Asn Tyr Tyr Arg Gln Ile
        35                  40                  45
Pro Gly Lys Val Pro Ser Phe Tyr Lys Ser Val Phe Arg Arg Lys Ile
    50                  55                  60
Val Leu Trp Asn Phe Val Val Val Ile Val Gln Asn Phe Phe Leu Ser
65                  70                  75                  80
Ala Gln Tyr Gly Arg Asn Trp Ser Cys Lys Ser Ser Asn His Gly Ile
                85                  90                  95
Leu Gln Tyr Pro Gln Gly Gln Trp Leu Ile Phe Leu Thr Phe Ser Leu
            100                 105                 110
Gln Gln Phe Cys Gly Ala Pro Arg Met Arg Lys Pro Gly Arg Trp Glu
        115                 120                 125
Phe Cys Val Pro Phe Ser Leu Ala Leu Ser Gly Pro Arg Cys Cys Thr
    130                 135                 140
Cys Ser Val Thr Tyr Pro Ser Leu Ile Ala Gly Ser Phe Gln Cys Ser
145                 150                 155                 160
Pro Ala Ala Trp Gly Leu His Asp Gly Pro Arg Cys Phe Gly Val Ser
                165                 170                 175
Gln Gly Leu Gly Cys Met Phe Pro Gly Leu Ala Gly Thr
            180                 185
```

<210> 37938
<211> 197
<212> PRT
<213> A.fumigatus

<400> 37938

```
Val Arg Pro Pro Ala Pro Trp Arg Pro Ser Lys Leu Arg Leu Glu Val
1               5                   10                  15
Leu Ala Gln Arg Ser Trp Gly Glu Arg Met Ser Gly Phe Met Pro Arg
            20                  25                  30
His Met Glu Gln Pro Ala Ser Arg His Ser Lys Pro Ala Ser Val Lys
        35                  40                  45
Thr Arg Ser Ser Pro Ser Ala Ser Ala Cys Cys Leu Thr Arg Pro Glu
    50                  55                  60
Pro Gly Thr Thr Met Ala Arg Leu Ile Leu Ala Ala Thr Phe Leu Pro
65                  70                  75                  80
Arg Thr Thr Leu Ala Ala Ala Arg Arg Ser Ser Ile Arg Ala Leu Val
                85                  90                  95
```

```
His Glu Pro Met Asn Thr Leu Ser Thr Gly Met Ser Cys Ile Arg Val
            100                 105                 110
Pro Ala Thr Arg Pro Met Tyr Ser Arg Ala Arg Leu Pro Gly Asp Leu
        115                 120                 125
Ala Val Leu Val Leu Glu Val Val Gly Ser Gly Asn Asp Ala Arg Asp
    130                 135                 140
Gly Asn Asn Val Leu Arg Gly Ser Thr Pro Gly Asn Gly Gly Asn Asp
145                 150                 155                 160
Ile Leu Ala Val Lys Asn His Gly Phe Val Val Asp Ser Ala Leu Ile
                165                 170                 175
Arg Arg Glu Ala Arg Pro Glu Gly Asp Ser Leu Leu Pro Leu Gly Ala
            180                 185                 190
Val Val Leu Gly Ser
        195
```

<210> 37939
<211> 159
<212> PRT
<213> A.fumigatus

```
<400> 37939
Ser Glu Gly Ile Gly Lys Gln Lys Asn Leu Glu Lys Ile His Leu Phe
1               5                   10                  15
Gly Gly Val Phe Leu Pro Val Thr Tyr Lys Phe Gly Gly Asp Pro Ser
            20                  25                  30
Arg Phe Pro Gly Lys Leu Lys Gly Pro Trp Arg Tyr Val Ile Tyr Arg
        35                  40                  45
Arg Gly Ala Ser Arg Lys Ala Phe His Ser Val Ala Gly Asp Ser Arg
    50                  55                  60
Lys Gly Glu Ala Asp Cys Thr Leu Leu Leu Pro Pro Gly Gly Ser Ile
65                  70                  75                  80
Phe Phe Ala Val Asn Phe Gly Asp Glu Asn Gly Val Pro Val Lys Gln
                85                  90                  95
Trp Val Phe Arg Ala Cys Val Ile Gln Gly Thr Gln Gln Ala Tyr Val
            100                 105                 110
Ile Gly Leu Trp Tyr Trp Gly Thr Ser Leu Ala Gln Ala Ser Asn Ser
        115                 120                 125
Gly Ile Ile Asn Pro Gln Gly Asp Ile Thr Asn Thr Trp Arg Ile Thr
    130                 135                 140
Tyr Val Arg Arg Pro Ser Phe Arg Leu Leu Ser Gln Phe Ala Asn
145                 150                 155
```

<210> 37940
<211> 195
<212> PRT
<213> A.fumigatus

```
<400> 37940
Val Val Glu Pro Trp Asp Ile Ala Ile Ser Ser Arg Ala Val Ala Asp
1               5                   10                  15
Ile Ser His Phe Leu Pro Ala Thr Val Leu Trp Ser Ser Lys Asn Ala
            20                  25                  30
Glu Ala Trp Gln Val Gly Ile Leu Cys Ala Phe Phe Phe Gly Ala Val
        35                  40                  45
Trp Ala Ala Leu Leu Tyr Leu Phe Gly Tyr Leu Ser Lys Ser His Ser
    50                  55                  60
```

```
Trp Ile Ile Pro Val Phe Ala Cys Gly Leu Gly Ala Pro Arg Trp Ala
65                  70                  75                  80
Gln Val Leu Trp Gly Val Ser Gly Ile Gly Leu Tyr Val Pro Trp Ala
                85                  90                  95
Gly Gly Asp Leu Ala Gly Ala Leu Val Ser Arg Ser Leu Trp Leu Trp
            100                 105                 110
Leu Gly Val Leu Asp Ser Leu Gln Gly Leu Gly Phe Gly Met Ile Leu
        115                 120                 125
Leu Gln Thr Leu Thr Arg Met His Ile Cys Phe Thr Leu Leu Ala Ser
    130                 135                 140
Gln Val Leu Gly Ser Ile Ala Thr Ile Cys Ala Arg Ala Phe Ala Pro
145                 150                 155                 160
Asn Asn Ile Gly Pro Gly Pro Ile Ser Pro Asp Leu Thr Ala Gly Val
                165                 170                 175
Ser Ser Val Ala Asn Ala Trp Phe Trp Ile Ala Ile Phe Phe Gln Leu
            180                 185                 190
Leu Ile Trp
        195
```

<210> 37941
<211> 466
<212> PRT
<213> A.fumigatus

<400> 37941

```
Arg His Leu Pro Phe Gln Arg Leu Gly Leu Asp Val Ser Thr Val Gly
1               5                   10                  15
Phe Gly Asp Gly Gly Gly Leu Asp His Gly Gly Ala Ala Ala Val Thr
            20                  25                  30
Ala Leu Glu Val Ala Ala Ala Val Glu Pro Gly Gly Leu Glu Gly Ala
        35                  40                  45
Leu Cys Leu Glu Gly Thr Asp Leu Val Leu His Leu Glu Gly Lys Ala
    50                  55                  60
Asp Val Val Glu Ala Val Asp Glu Ala Val Leu Ala Glu Gly Val Asn
65                  70                  75                  80
Leu Glu Gly Gly Glu Leu Gly Ala Gly Ser Val Leu Asp Leu Leu Val
                85                  90                  95
Asp Lys Val Asn Phe Asn Leu Ala Ala Gly Gly Gly Leu Gly Gly Asp
            100                 105                 110
Gly Gly Glu Asp Gly Gly Val Gly Asp Asp Asp Gly Gln His Ala Val
        115                 120                 125
Leu Glu Gly Val Val Glu Glu Asp Ile Ser Glu Gly Gly Gly Asp Asp
    130                 135                 140
Ala Leu Asp Ala Lys Val Lys Glu Gly Pro Gly Gly Val Leu Ala Gly
145                 150                 155                 160
Ala Ala Ala Ala Lys Val Gly Ala Cys Asn Asp Glu Asn Leu Gly Val
                165                 170                 175
Ala Val Gly Leu Leu Val Gln Asp Glu Gly Leu Val Phe Arg Ala Val
            180                 185                 190
Gly Gly Val Val Ala Glu Phe Ile Glu Glu Gly Ala Ala Glu Ala Gly
        195                 200                 205
Thr Leu Asp Arg Leu Glu Lys Leu Leu Gly Asp Asp Gly Val Gly Ile
    210                 215                 220
Asp Val Gly Ala Val His Trp Gly Gly Asn Ala Ala Glu Gly Gly Glu
225                 230                 235                 240
Leu Gly Glu Ala Ser Gly Gly Ala Ser Ser Gly Arg Gly Gly Gly Arg
```

```
                245                 250                 255
Val Gly Val Arg Leu Ile Val Gly Arg His Val His Asp Ala Val Glu
            260                 265                 270
Leu Val Phe Arg Arg Gly Val Leu Val Leu Leu Leu Asp Val Gln Val
        275                 280                 285
Gly Leu Gly Leu Gly Gln Gln Arg Ala Gly Gly Gln Met Phe Thr His
    290                 295                 300
Ile Gly Lys Val Ala Gly Asp Gly Ser Gly Ser Gly His Gly Gly Gly
305                 310                 315                 320
His Glu Val Ser Ala Ala Ala Ser Thr Leu Ala Thr Leu Glu Ile Ala
                325                 330                 335
Val Gly Gly Ala Gly Ala Ala Leu Leu Gly Gly Glu Asp Val Gly Val
            340                 345                 350
His Ala Gln Ala His Gly Ala Ala Gly Leu Ala Pro Leu Lys Thr Ser
        355                 360                 365
Ile Arg Glu Asp Ala Val Lys Pro Leu Gly Phe Arg Leu Leu Leu Asp
    370                 375                 380
Gln Thr Arg Thr Gly Asn Asn His Gly Ala Leu Asp Ile Gly Gly Asn
385                 390                 395                 400
Leu Leu Ala Ala Asp Asp Leu Gly Arg Gly Ala Gln Ile Leu Asn Pro
                405                 410                 415
Arg Val Gly Ala Arg Ala Asp Glu His Leu Val Asp Gly Asn Val Leu
            420                 425                 430
Tyr Pro Gly Ala Ser His Glu Thr His Val Leu Glu Gly Thr Leu Ala
        435                 440                 445
Arg Arg Pro Cys Gly Ser Arg Pro Arg Ser Arg Arg Val Arg Glu Arg
    450                 455                 460
Arg Pro
465

<210> 37942
<211> 64
<212> PRT
<213> A.fumigatus

<400> 37942
Glu Asp Glu Arg Thr Phe Gly Ser Ser Gln Ile Gly Gly Cys Cys Gln
1               5                   10                  15
Asn Gly His Thr Ala Leu Ala Leu Gly His Thr Gly Thr Asn Cys Val
            20                  25                  30
Ile Leu Ala Ala Trp Gly Glu Gly Phe Val Cys His Ile Asp Gly Glu
        35                  40                  45
Gly Ser Leu Ser Ser Asp Phe Gln Ser His Asn Asp Ala Val Lys Ser
    50                  55                  60

<210> 37943
<211> 83
<212> PRT
<213> A.fumigatus

<400> 37943
Ser Asn Pro Thr Val Ser His Ser Gly Ser Gln Leu Ala Val Ser Leu
1               5                   10                  15
Leu His Met Thr Val Thr Tyr Asp Tyr Ala His Leu Ser Gly Asn Tyr
            20                  25                  30
Pro Leu Cys Ser Asp Leu Lys Glu Ile Lys His Phe Leu Ala Ser Asn
```

```
        35                  40                  45
Pro Gln His Trp Asp Gly Arg Ser Ser Met Thr Gly Trp Asp Ser Leu
    50                  55                  60
Gln Leu Thr Ser Phe Ser Thr Val Thr Ile Val Gln Met Glu Tyr Lys
65                  70                  75                  80
Leu Arg Arg
```

<210> 37944
<211> 113
<212> PRT
<213> A.fumigatus

<400> 37944

```
Cys Glu Ser Gln Arg Glu Lys Gly Glu Tyr Gln Ala Thr Asn Leu Arg
1               5                   10                  15
His Ser Gly Ser Ser Lys Leu Arg Leu His Ser Ile Ser His Asn Asp
            20                  25                  30
Gln Ser Leu Ser Glu Thr Val Leu Phe Thr Val Asp Leu Thr Ile Asp
        35                  40                  45
Ala Gln Leu Leu Arg Asn Tyr Gly Val Gln Thr Lys Cys His Arg Ser
    50                  55                  60
Ser Gly Ile Leu Gly Leu Arg Ala Thr His Gly Cys Thr Lys Leu Phe
65                  70                  75                  80
Ser Ser Cys Ile Glu Ser Gly Ala Val Ala Gln Lys Asp Leu Pro Val
                85                  90                  95
Leu Ile Leu Ser Ala Leu Ser Phe Val Pro Ser Glu Ser Asn Leu Arg
            100                 105                 110
Phe
```

<210> 37945
<211> 62
<212> PRT
<213> A.fumigatus

<400> 37945

```
Ser Phe Thr Val Thr Met Ser Gln Ser Met Phe Glu Thr Ala Ala Tyr
1               5                   10                  15
Ala Thr Gly Tyr Cys Ser Val Val Gln Leu Thr Arg Val Val Cys Gln
            20                  25                  30
Tyr Leu Thr Thr Leu Lys Met Pro Ile Asn Leu Pro Thr Ser Asn Ser
        35                  40                  45
Ser Ser Ser Ser Val Ser Tyr Leu Ser Glu Tyr Val Lys Val
    50                  55                  60
```

<210> 37946
<211> 232
<212> PRT
<213> A.fumigatus

<400> 37946

```
Pro Ala Ser Val Ser Gln Thr Trp Asn Ile Leu Pro Ser Ser Ser Ser
1               5                   10                  15
Ser Asn Ala Leu Lys Gln Ile Thr Pro Ser His Trp Val Cys Tyr Ser
            20                  25                  30
```

```
Phe Thr Thr Pro His Gly Cys Ser Gln Val Arg Leu Phe Leu Leu Gln
        35                  40                  45
Val Glu Tyr Gln Leu Thr Arg Pro Gly Ile Trp Arg Leu Ile Lys Gly
    50                  55                  60
Trp Met Asp Pro Val Ile Val Ser Lys Ile Gln Phe Thr Lys Thr Ile
65                  70                  75                  80
Ala Asp Leu Glu Lys Phe Ile Pro Arg Gly Gln Ile Ile Lys Glu Leu
                85                  90                  95
Gly Gly Thr Glu Asp Trp Thr Tyr Glu Tyr Val Glu Pro Asp Glu Asn
            100                 105                 110
Glu Asn Asp Arg Met Glu Asp Thr Thr Ala Arg Asp Ala Leu Leu Ala
        115                 120                 125
Gln Arg Ala Ser Ile Gly Asp Glu Leu Leu Asn Thr Thr Ser Lys Trp
    130                 135                 140
Ile Thr Ala Ile Lys Asn Lys Asp Glu Glu Glu Ala Ala Ala Ala Lys
145                 150                 155                 160
Thr His Arg Asp Ala Leu Ile Glu Gln Leu Arg Leu Asn Tyr Trp Gln
                165                 170                 175
Leu Asp Pro Tyr Val Arg Ser Arg Asn Tyr Leu Asp Arg Thr Gly Val
            180                 185                 190
Ile Lys Val Gly Gly Lys Ile Asp Phe Tyr Pro Lys Ser Gln Pro Gln
        195                 200                 205
Ser Asp Val Glu Val Ala Lys Val Val Glu Val Glu His Val Glu Gln
    210                 215                 220
Thr Gln Val Gln Val Val Asn Ala
225                 230
```

<210> 37947
<211> 274
<212> PRT
<213> A.fumigatus

<400> 37947

```
Pro Ala Gly Pro Pro Ser Arg His Ser Ser Thr Glu Asn Leu Thr Leu
1               5                   10                  15
Thr Met Ala His Ser Asn Val Pro Glu Gly Phe Leu Gly Asn Leu Thr
            20                  25                  30
Ala Asp Gln Gln Lys Lys Leu Glu Gln Leu Trp Thr Ile Ile Leu Thr
        35                  40                  45
Leu Ser Asp Ala Leu Thr Ser Thr Thr Thr Ile Asp Thr Asn Glu Pro
    50                  55                  60
Gln His Arg Arg Asn Ser Ser Leu Ala Arg Thr Asn Thr Thr Ala Ser
65                  70                  75                  80
Lys Gly Ser Thr Ala Thr Thr Pro Thr Cys Ala Ala Gln Val Ser Gln
                85                  90                  95
His Leu Gln Arg Leu Gly Leu His Ala Pro Glu Ile Lys Gln Val Gln
            100                 105                 110
His Ile Leu Thr Gln Ile Thr Pro Glu Glu Ile Arg Asp Gly Leu Leu
        115                 120                 125
Ser Thr Ala Lys His Asp His Pro Asp Ala Leu Leu Leu Arg Phe Leu
    130                 135                 140
Arg Ala Arg Lys Trp Asp Val Thr Lys Ala Phe Val Met Met Leu Asp
145                 150                 155                 160
Ala Ile Leu Trp Arg Met Lys Asp Phe His Val Asp Glu Glu Val Ile
                165                 170                 175
Ala Lys Gly Glu Leu His Ala Leu Lys Ala Ser Arg Asp Thr Ser Asn
```

```
            180                 185                 190
Ala Val Ala Ala Lys Asn Gly Lys Asp Phe Leu Ala Gln Met Arg Met
        195                 200                 205
Gly Lys Ala Tyr Val His Gly Val Asp Arg Leu Gly Arg Pro Ile Val
    210                 215                 220
Val Ile Arg Val Gln Leu His Lys Pro Gly Ala Gln Ser Glu Glu Thr
225                 230                 235                 240
Leu Asn Gln Phe Ile Ile His Val Ile Glu Ser Val Arg Leu Leu Leu
                245                 250                 255
Val Pro Pro Val Glu Thr Ala Val Ser Asn Arg Phe Leu Val Asp Gly
            260                 265                 270
Gln Asn
```

<210> 37948
<211> 81
<212> PRT
<213> A.fumigatus

<400> 37948

```
Arg Leu Gln Ala Val Val Phe Asp Met Thr Gly Phe Gly Leu Ser Asn
1               5                   10                  15
Met Glu Tyr Pro Pro Val Lys Phe Ile Ile Lys Cys Phe Glu Ala Asn
            20                  25                  30
Tyr Pro Glu Ser Leu Gly Val Leu Leu Ile His Asn Ala Pro Trp Val
        35                  40                  45
Phe Ser Gly Pro Phe Val Pro Ile Ala Gly Gly Val Ser Thr Asp Glu
    50                  55                  60
Thr Arg Tyr Leu Ala Pro His Gln Arg Leu Asp Gly Ser Arg His Cys
65                  70                  75                  80
Leu
```

<210> 37949
<211> 67
<212> PRT
<213> A.fumigatus

<400> 37949

```
Cys Ala Val Thr Glu Met Ser Val Lys Glu Leu Gly Ala Arg Leu Ala
1               5                   10                  15
Ser Leu Arg Cys Leu Ala Arg Leu Gln Arg Ser Trp Ile Pro Ile Phe
            20                  25                  30
Leu Phe Val His Asn Asn Gly Ile Ala Ile Leu Ser Leu Ser Val Phe
        35                  40                  45
Asn Ala Cys Ala Val Lys Asp Pro Gly Asn Ile Ser Gly Asn Cys Val
    50                  55                  60
Phe Phe Phe
65
```

<210> 37950
<211> 113
<212> PRT
<213> A.fumigatus

<400> 37950

```
Lys Gly Ser Gly Ser Ile Gln Gln Leu Phe Leu Val Ile Met Ala Thr
1               5                  10                  15
Ala Thr Val Glu Leu Pro Tyr Leu Ala Ser His Tyr Ala Ile Ala Glu
            20                  25                  30
Ser Thr Leu Thr Thr Leu Thr Gln Ala Pro Thr Val Glu Leu Val Asn
        35                  40                  45
Gln Leu Leu Glu Ala Ile Thr Lys Lys Ala His Glu Tyr Asp Glu Leu
    50                  55                  60
Lys Ser Asp Lys Leu Arg Leu Glu Val Glu Leu Glu Asn Ala Val Arg
65                  70                  75                  80
Ser Ser Asp Ser Lys Ile Lys Val Leu Lys Ser Ser Val Glu Lys Ser
                85                  90                  95
His Thr Glu Val Glu Glu Ala Arg Lys Lys Leu His Glu Ser Gly Gly
            100                 105                 110
Leu
```

<210> 37951
<211> 320
<212> PRT
<213> A.fumigatus

```
<400> 37951
Pro Thr Leu Ser Asp Thr Cys Leu Glu Asn Ala Arg Ser Ala Leu Glu
1               5                  10                  15
Ser Glu Ile Ala Thr Leu Lys Ser Ser Thr Thr Ser Asn Glu Ser Glu
            20                  25                  30
Val Asn Thr Leu Lys Ser Arg Ile Ser Ser Leu Glu Ala Ser Asn Arg
        35                  40                  45
Asp Thr Leu Gly Leu Leu Glu Ser Lys Ser Ala Ala Tyr Asp Lys Leu
    50                  55                  60
Ala Glu Glu Leu Ser Ala Gln His Lys Arg Thr Ile Glu Leu Arg Arg
65                  70                  75                  80
Glu Leu Ala Thr Ala Glu Gln Asn Leu Gln Ala Ala Asn Ser Ala Ser
                85                  90                  95
Ala Ser Ala Arg Phe Arg Glu Gln Ser Leu Gln Gln Glu Leu Asp Leu
            100                 105                 110
Thr Lys Lys Asn Asn Glu Trp Phe Glu Thr Glu Leu Lys Thr Lys Ser
        115                 120                 125
Ala Glu Tyr Leu Lys Phe Arg Lys Glu Lys Thr Ala Arg Ile Ala Glu
    130                 135                 140
Leu Gln Arg Glu Asn Glu Glu Ala Asn Ser Thr Ile Asp Ser Leu Arg
145                 150                 155                 160
Arg Ser Glu Asn Ala Leu Lys Ser Arg Leu Asp Glu Val Glu Gln Arg
                165                 170                 175
Tyr Glu Glu Ser Leu Ser Ser Ile Gln Gln Leu Lys Glu Glu Ala Ile
            180                 185                 190
Gln Ala Ala Glu Ser Phe Arg Ile Glu Leu Asp Ser Thr Asn Arg Leu
        195                 200                 205
Ala Glu Leu Gln Gly Asn Ala Ala Gln Thr Ala Lys Gln Arg Val Gln
    210                 215                 220
Glu Cys Gln Leu Ala Leu Glu Lys Ala Arg Asp Asp Ala Ala Glu Glu
225                 230                 235                 240
Ile Ser Arg Leu Arg Val Glu Ile Glu Thr Glu His Ala Asp Lys Glu
                245                 250                 255
Ala Ala Glu Arg Arg Val Ala Glu Leu Glu Leu Thr Val Thr Gln Leu
```

```
            260                 265                 270
Gln Ser Glu Gly Ala Thr Ala Gly Arg Ser Met Ser Pro Ala Arg Gly
        275                 280                 285
Leu Asn Gly Thr Gly Pro Ser Thr Pro Val Arg Pro Gly Thr Pro Ser
    290                 295                 300
Gly Ala Phe Ser Ser Ser Pro Arg Gly Trp Lys Asp Pro Arg Trp Ser
305                 310                 315                 320
```

<210> 37952
<211> 319
<212> PRT
<213> A.fumigatus

<400> 37952

```
Asn Lys Ile Ser Leu Ala Leu Gly Ala Gly Arg Arg Leu Asn His Gln
1               5                   10                  15
Thr Phe Thr Ser Val Thr Ser Leu Pro Ala Ile Ala Ile Met Ser Leu
            20                  25                  30
Gln Gln Gln Leu Lys Ser Phe Asn Ala Ser Val Thr Asp Tyr Ala Asn
        35                  40                  45
Arg Met Pro Gln Gln Arg Arg Phe Val His Asn Gly Ser Thr Ser Thr
    50                  55                  60
Ser Gln Val Pro Ser Ser Thr Ser Thr Pro Thr Pro Gly Ser Asp Ala
65                  70                  75                  80
Gln Arg Lys Arg Gln Asn Ala Asp Ile Val Tyr Ser Gln Pro Ala Asn
                85                  90                  95
Thr Gly Thr Gly Lys Asp Ile Met Thr Gln Val Leu Phe Ala Val Glu
            100                 105                 110
His Leu Lys Ser Lys Gly Val Pro Leu Arg Tyr Ser Asp Ile Val Ser
        115                 120                 125
Tyr Leu Ser Leu Gln His Arg Ser Ser Asp Glu Gly Tyr Leu Gln Ala
    130                 135                 140
Leu Arg Arg Ile Leu Thr Gln His Glu Lys Val Leu Tyr Asp Pro Ser
145                 150                 155                 160
Gly Ala Asn Gly Glu Gly Thr Phe Ala Phe Arg Pro Pro His Asn Ile
                165                 170                 175
Arg Thr Ala Glu Gln Leu Leu Gln Lys Leu Gln Ser Gln Thr Thr Ala
            180                 185                 190
Ala Gly Met Ser Val Arg Glu Leu Arg Glu Gly Trp Pro Asn Val Glu
        195                 200                 205
Glu Thr Ile Asn Arg Leu Glu Lys Glu Gly Lys Leu Leu Val Thr Arg
    210                 215                 220
Asn Lys Lys Asp Asp His Ala Lys Met Val Trp Ala Asn Asp Pro Ser
225                 230                 235                 240
Leu Val Gln His Phe Asp Glu Glu Phe Arg Gln Ile Trp Ala Lys Ile
                245                 250                 255
Lys Val Pro Asp Gln Gln Ala Val Lys Glu Glu Leu Gly Lys Ala Gly
            260                 265                 270
Ile Thr Pro Thr Ser Lys Asn Lys Ile Val Lys Val Arg Pro Lys Val
        275                 280                 285
Glu Gln Lys Lys Val Lys Lys Pro Arg Arg Ser Gly Lys Thr Thr Asn
    290                 295                 300
Thr His Met Met Gly Val Leu Arg Asp Tyr Ser His Leu Lys Arg
305                 310                 315
```

<210> 37953

<211> 68
<212> PRT
<213> A.fumigatus

<400> 37953
Glu Asn Asn Ile Glu Leu Leu Lys Lys Asn Ile Ile Gly Val Lys Val
1 5 10 15
Arg Ile Glu Arg Leu Gln Gly Lys Phe Lys Met Ser Gln Glu Met Gly
20 25 30
Ala Gly Asp Arg Glu Gly Val Ile Glu Gly Phe Glu Lys Leu Gly Thr
35 40 45
Glu Val Gly Met Gly Ile Ala Lys Thr Val Lys Glu Arg Gly Asp Met
50 55 60
Lys Asp Lys Lys
65

<210> 37954
<211> 189
<212> PRT
<213> A.fumigatus

<400> 37954
Glu Asp Asn Asp Arg Ile Cys Lys Leu Phe Ile Val Tyr Asp Ser Asn
1 5 10 15
Gln Asn Pro Phe Arg Asn Leu Ile Pro Leu Ala Val Lys Asp Pro Leu
20 25 30
Leu Leu Ser Thr Val Leu Ala Leu Ala Ala Arg His Arg Ala Asn Glu
35 40 45
Gly Gln Thr Phe Asn Gly Met Glu Ala Pro Val Pro Trp Thr Asp Asn
50 55 60
Ala Gln His Asn Ala Leu Val Phe Lys His Gln Ala Ile His Gly Leu
65 70 75 80
Ser Gln Ile Val Gly Asp Pro Glu Ser Cys Arg Ser Asp Pro Thr Ile
85 90 95
Ala Ser Ile Phe Leu Leu Ile Phe Leu Asp Leu Val Glu Ser Gly Asn
100 105 110
Asp Arg Trp Asn Ala His Leu Glu Gly Ala Lys Ala Leu Leu Ser Leu
115 120 125
Asn Lys Ser Leu Ser Gln Val His Asp Pro Gly Gln Thr Val Gln Glu
130 135 140
Ile Arg Ser Phe Ile Thr Lys Gln Ile Tyr Leu Tyr Val His Ser Ala
145 150 155 160
Leu Asn Leu Ser Asp Ser Asn Thr Lys Gln Asn Arg Asp Thr Trp Trp
165 170 175
Asp Leu Cys Thr Ala Glu Pro Ile Ile Lys Phe Ser Cys
180 185

<210> 37955
<211> 472
<212> PRT
<213> A.fumigatus

<400> 37955
His Lys Val Leu Pro Thr Glu Lys Met Ala Lys Phe Thr Ile Tyr Tyr
1 5 10 15
Arg Ile Pro Ser Thr Arg Leu Val Gln Ser Gln Ser Thr Asp Met Arg

```
            20                  25                  30
Ile Gln Tyr Gly Gln Val Val Arg Cys His Lys His Ile Cys Val Arg
        35                  40                  45
Glu Arg Asn Lys Ser Arg Ala Val Gln Gly Trp Val Cys Leu Lys Asp
    50                  55                  60
Leu Thr Gly Arg Leu Ile Gly Ile Ser Leu Ile Leu Ser Cys Tyr Leu
65                  70                  75                  80
Gln Leu Gly Ile Gly Gln Val Gln Leu Arg Gln Pro Ser His Glu Arg
                85                  90                  95
Gly Leu Ala Arg Cys Arg Gly Ser Asp Val Ala Val Val Arg Pro Asn
            100                 105                 110
Gly Thr Thr Trp Leu Ile Pro Gly Lys Leu Asp Phe Ala Pro Gly Glu
        115                 120                 125
Cys Glu Arg Ile Val Leu Val Ala Arg Asn Gly Gly Ser Ala Ile Ile
    130                 135                 140
Thr Arg Asp Ile Val Val Asp Thr Gly Leu Ala Arg Trp Asp Cys Arg
145                 150                 155                 160
Ile Ala Trp Ile Thr Ser Ala Val Ser Asp Asn Phe Pro Cys Cys Gly
                165                 170                 175
Ser Ile Gly Val Asp Ala Val Gly Val Gly Leu Val Asp His Met Gln
            180                 185                 190
Val Gly Glu Val Leu Pro Asp Gln Pro Ser Val Val Arg Arg Ala Gly
        195                 200                 205
Arg Asn Val Leu Gly Gln Gln Cys Pro Val Pro Gly Leu Arg Asp Thr
    210                 215                 220
Gly Ser Glu Pro Tyr Gly His Gly Leu Glu Ala Lys Lys Leu Ala Glu
225                 230                 235                 240
Asp Arg Leu Leu Pro Gly Leu Asn Gly Phe Arg Phe Asp Asp Gln Gly
                245                 250                 255
Arg Asp Leu Leu Arg Val Glu Met Ala Arg Leu Ala Pro Gly Pro Gly
            260                 265                 270
Leu Ala Pro Ala Gly Glu Leu Asp Val Glu Val Asp Glu Leu Ala Asp
        275                 280                 285
Arg Leu Glu Arg Ile Val Leu Cys Ala Leu Ala Trp Gly Arg Leu Ala
    290                 295                 300
Gln His Val Ala His Glu Gly Gly Val Ala Gly Leu Val Arg Gly His
305                 310                 315                 320
Val Phe Asp Gln Ala Ala Val Leu Asp Ser Glu Thr Ser Ile Glu Lys
                325                 330                 335
Val Leu Arg Ala Glu Asp Phe Glu Thr Ile Val Glu Lys Val Gln Leu
            340                 345                 350
Asp Ile Phe Leu Val Asp Ala Gln Ser His Gly Leu Val Val Lys Ile
        355                 360                 365
Ala Leu His His Val His Gly His Gly Ala Ile Gly Ser His Ala Ala
    370                 375                 380
Gly Gly His Val Trp His Arg His Trp Leu Ser Gln Leu Ala Ile Gly
385                 390                 395                 400
Ile Val Val Arg Gly Gly Trp Val Gly Leu Asn Gly Asp Ser Gly Arg
                405                 410                 415
Gln Arg Gly Arg Ile Leu Leu Ser Thr Gly Gly Gly Arg Gly Ala Arg
            420                 425                 430
Val Gly Thr Val Gly Gly Asp Ala Ser Arg Gly Thr Val Asp Glu Arg
        435                 440                 445
Arg Ser Arg Thr Gly Leu Ile Pro Thr Gly Arg Leu Gly Leu Asn Gly
    450                 455                 460
Gly Asn Val Asp Asn Leu Cys Phe
```

465 470

<210> 37956
<211> 164
<212> PRT
<213> A.fumigatus

<400> 37956
Ser Asn Ala Glu Gly Ile Thr Thr Ser Glu Ala Gln Tyr Asp Ser Asn
1 5 10 15
Gly Phe Ala Arg Asn Ser Met Ser Phe Pro Glu Leu Thr Gly Asn Thr
20 25 30
Phe Pro Arg Phe Gly Thr Thr Gly Phe Gly Glu Ala Met Asp Ala Asp
35 40 45
Ala Glu Thr Thr Phe Ser Ile Arg Met Gln Pro Lys Gln Gly Arg Pro
50 55 60
Gly Ser Asn Leu Asn His Glu Val Arg Met Ser Leu Lys Asn Ala Met
65 70 75 80
Val Lys Phe Ile Thr Leu Thr Thr Val Gln Ser Tyr Leu Gly Leu Glu
85 90 95
Asp Val Phe Pro Ile Trp Leu Pro Ser Met Tyr Val Ile Val Ile Val
100 105 110
Asp Thr Leu Ile Tyr Leu Gly Thr Ser Leu Tyr Gln Ser Gly Asn Ser
115 120 125
Pro Arg Ala Asn Thr Leu Gly Thr Arg Gly Lys Thr Val Pro Tyr Lys
130 135 140
Val Gly Trp Phe Cys Glu Gln Asn Ile Phe Asp Ala Pro Leu His Gly
145 150 155 160
Trp Leu Phe Leu

<210> 37957
<211> 236
<212> PRT
<213> A.fumigatus

<400> 37957
Ser Leu Ser His Gly Lys Ala Ala Thr Ser Ser Arg Pro Thr Thr Ile
1 5 10 15
Lys Ala Ala Lys Arg Pro Val Asn Cys Lys Pro Ser Ala Val Ser His
20 25 30
Arg Leu Ser Thr Ile Lys Met Lys Ser Leu Ile Trp Ile Leu Ala Gly
35 40 45
Ser Ala Ala Ala Val Pro Leu Val Ser Asn Ser Glu Thr Lys Val Ile
50 55 60
Asn Ile Pro Ala Ile Glu Thr Gln Pro Pro Arg Gly Asn Glu Pro Gly
65 70 75 80
Ala Ala Pro Pro Leu Val Asn Ser Ala Thr Thr Gly Val Thr Thr His
85 90 95
Gly Ala Tyr Ser Gly Thr Pro Thr Thr Thr Gly Ala Glu Gln Tyr Pro
100 105 110
Ser Thr Leu Ala Ala Thr Ile Pro Ile Gln Pro Asn Pro Thr Ala Thr
115 120 125
Tyr Tyr Asn Pro Asn Gly Lys Leu Thr Glu Pro Met Pro Met Pro Tyr
130 135 140
Met Pro Ala Gly Gly Val Gly Thr Asn Gly Thr Val Pro Val Tyr Met

```
145                 150                 155                 160
Val Gln Ser Asp Phe Asp Tyr Gln Ser Val Ala Leu Gly Val His Gln
                165                 170                 175
Glu Tyr Ile Glu Leu Asp Leu Phe His Tyr Gly Leu Glu Val Phe Ser
            180                 185                 190
Ala Gln Asp Phe Leu Asp Ala Gly Leu Thr Val Glu Asp Arg Arg Leu
        195                 200                 205
Ile Glu Tyr Met Ala Thr His Glu Ala Gly His Ala Thr Leu Met Ser
    210                 215                 220
Asn Met Leu Gly Glu Ser Ala Pro Arg Gln Cys Thr
225                 230                 235

<210> 37958
<211> 246
<212> PRT
<213> A.fumigatus

<400> 37958
Ser Ser His Leu Asp Ser Lys Glu Val Ala Thr Leu Val Val Glu Ala
1               5                   10                  15
Glu Ala Ile Glu Ala Arg Gln Gln Ser Ile Phe Arg Gln Leu Leu Gly
            20                  25                  30
Leu Gln Pro Met Pro Ile Trp Phe Ala Ala Gly Ile Pro Gln Ser Trp
        35                  40                  45
His Trp Thr Leu Leu Ala Gln Tyr Ile Ser Ser Cys Pro Ala Asn Asn
    50                  55                  60
Thr Arg Leu Val Trp Gln Asn Phe Pro Asn Leu His Val Val Asn Gln
65                  70                  75                  80
Ala Asn Pro Asn Arg Ile Asn Ala Asn Ala Thr Ala Ala Trp Glu Val
                85                  90                  95
Val Gly Asn Arg Thr Ser Asp Pro Ser Asn Ser Thr Ile Pro Ala Gly
            100                 105                 110
Gln Ser Cys Val His Asn Asn Val Thr Gly Tyr Asn Cys Gly Pro Ala
        115                 120                 125
Ile Ser Arg Asp Lys Tyr Asp Pro Leu Thr Phe Pro Gly Arg Lys Val
    130                 135                 140
Glu Leu Thr Trp Asp Glu Pro Gly Arg Ala Val Gly Pro Asn Asn Ser
145                 150                 155                 160
Tyr Val Thr Ser Thr Thr Ala Gly Lys Pro Ser Phe Val Ala Trp Leu
                165                 170                 175
Ser Gln Leu Asn Leu Thr Tyr Thr Glu Leu Lys Val Thr Gly Gln Asn
            180                 185                 190
Lys Gly Tyr Thr Tyr Gln Pro Ala Ser Glu Val Phe Glu Thr Asp Pro
        195                 200                 205
Ala Leu Asn Gly Thr Ala Phe Ile Ala Leu Thr Asp Thr Asp Met Phe
    210                 215                 220
Val Thr Pro Tyr Asn Leu Thr Ile Leu Asn Pro His Ile Arg Ala Leu
225                 230                 235                 240
Gly Leu Tyr Gln Ala Gly
                245

<210> 37959
<211> 96
<212> PRT
<213> A.fumigatus
```

<400> 37959
Ser Pro Ser Ser Gly Ser Leu Pro Ala Leu Pro Gln Gln Ser Pro Leu
1 5 10 15
Cys Pro Thr Gln Lys Gln Arg Leu Ser Thr Phe Pro Pro Leu Arg Pro
20 25 30
Asn Arg Pro Val Gly Met Ser Pro Val Arg Leu Leu Arg Ser Ser Thr
35 40 45
Val Pro Arg Leu Ala Ser Pro Pro Thr Val Pro Thr Leu Ala Pro Leu
50 55 60
Pro Pro Pro Val Leu Ser Ser Ile Leu Pro Arg Trp Arg Pro Leu Ser
65 70 75 80
Pro Phe Ser Pro Thr Gln Pro Pro Arg Thr Thr Ile Pro Met Ala Ser
85 90 95

<210> 37960
<211> 194
<212> PRT
<213> A.fumigatus

<400> 37960
Ile Gly Ser Ile Gln Lys Asn Pro Arg Glu Pro Thr Phe Phe Thr Asn
1 5 10 15
Arg Ala Leu Thr Arg Ile Arg Leu Glu Lys Trp Ala Gly Val Glu His
20 25 30
Asp Ala Arg Thr Ala Ile Glu Leu Tyr Gly Pro Lys Asn Thr Gln Ser
35 40 45
Leu Lys Ser Cys Trp Tyr Leu Ala Gln Ala Leu Leu Gly Leu Gly Arg
50 55 60
Pro Gln Glu Ala Tyr Glu Val Ala Ile Asp Ala Tyr Arg Ala Ser Leu
65 70 75 80
Ala Ala Lys Ser Ala Gln Thr Glu Asn Leu Ser Lys Thr Val Leu Arg
85 90 95
Ala Lys Gln Gln Ile Trp Ala Ala Lys Glu Thr Ala Arg Leu Arg Glu
100 105 110
Met Asn Asp Thr Leu Ala Thr Val Glu Ser Leu Ile Glu Ala Asp Leu
115 120 125
Asn Arg Glu Leu Ala Glu Leu Gln Ala Lys Leu Asp Lys Gly Glu Ile
130 135 140
Gly Gln Thr Gly Phe Val Glu Asp Gln Lys Ala Leu Arg Ala Asp Ala
145 150 155 160
Glu Lys Asn Ile Gln Asn Val Arg Asp Ala Phe Arg Ile Ala Ser Asn
165 170 175
Gly Asp Ile Gln Glu Arg Val Ser Gly Ser Ser Ser Trp Glu Ser Val
180 185 190
Pro Cys

<210> 37961
<211> 65
<212> PRT
<213> A.fumigatus

<400> 37961
Tyr Gly Gln Ala Lys Phe Lys Tyr Asn Ala Trp Lys Glu Ile Ser His
1 5 10 15
Ile Ser Ala Gln Lys Ala Gln Ala Leu Tyr Ile Lys Gln Val Asn Asp

```
            20                  25                  30
Leu Ile Asn Lys Tyr Gly Pro Arg Ala Tyr Ile Asp Thr Val Leu Val
        35                  40                  45
Gly Ile Trp Glu Ala Ile Val Ile Gly Arg Tyr Ser Leu Leu Leu Gly
    50                  55                  60
Val
65

<210> 37962
<211> 212
<212> PRT
<213> A.fumigatus

<400> 37962
Lys Ala Pro Glu Ser Pro Ser Val Ile Val Gln Val Asp Ser Phe His
1               5                   10                  15
Arg Thr Tyr Ala Val Tyr Gln Arg Leu Ser Pro Leu Val Ser Arg Leu
            20                  25                  30
Ser Ile His Thr His Ser Thr Leu Leu Leu Pro Ser Gly Phe Tyr Ser
        35                  40                  45
Val Ile Met Ser Thr Asp Leu Lys Pro Leu Arg Ile Val Met Ala Cys
    50                  55                  60
Asp Glu Ala Gly Gln Pro Tyr Lys Glu Ile Ile Lys Ala Ala Leu Glu
65                  70                  75                  80
Lys Asn Pro Leu Val Glu Ser Ile Thr Asp Val Gly Val Asn Ser Thr
                85                  90                  95
Ser Asp Lys Thr Ala Tyr Pro His Pro Ala Val Ala Gly Ala Lys Leu
            100                 105                 110
Ile Lys Glu Gly Lys Ala Asp Arg Gly Leu Phe Ile Cys Gly Thr Gly
        115                 120                 125
Leu Gly Val Ala Ile Ala Ala Asn Lys Val Pro Gly Ile Arg Ala Val
    130                 135                 140
Thr Ala His Asp Ser Phe Ser Val Glu Arg Ser Ile Leu Ser Asn Asp
145                 150                 155                 160
Ala Gln Val Leu Cys Phe Gly Gln Arg Val Ile Gly Ile Glu Leu Ala
                165                 170                 175
Lys Lys Leu Ala Asn Glu Trp Leu Thr Tyr Arg Phe Asp Pro Lys Ser
            180                 185                 190
Ala Ser Ala Ala Lys Val Gln Ala Ile Thr Asp Tyr Glu Arg Glu Phe
        195                 200                 205
Ala Ala Ala Gln
    210

<210> 37963
<211> 71
<212> PRT
<213> A.fumigatus

<400> 37963
Leu Met Asn Gly Gln Tyr Ala Leu Gly Gln Glu Gln Gln Ala Glu Ser
1               5                   10                  15
Ile Glu Ser Asn Tyr Cys Glu Ser Gly Glu Trp Ser Ile Glu Ser Lys
            20                  25                  30
Phe Leu Lys Leu Arg Leu Ser His Leu Asp Ile Thr Gln Tyr Lys Leu
        35                  40                  45
Arg Pro Ser Cys Pro Phe Ser Asp Met Asp Thr Leu Ala Arg Trp Ile
```

```
    50                  55                  60
Val Leu Arg Cys Gln Ser Ser
65                  70
```

<210> 37964
<211> 77
<212> PRT
<213> A.fumigatus

<400> 37964

```
Val Val Pro Asp Tyr Leu Val Asp Gly Ile Thr Phe Glu Ile Met His
1               5                   10                  15
Asp Pro Val Ile Thr Pro Ser Gly Thr Ser Phe Asp Arg Ile Gly Ile
            20                  25                  30
Ile Lys Tyr Val Glu Gln Ser Gly Val Asp Pro Ile Thr Arg Val Pro
        35                  40                  45
Met Thr Val Asn Asp Leu Arg Pro Asn Tyr Ala Leu Lys Ala Ala Cys
    50                  55                  60
Glu Glu Phe Leu Asn Lys Asn Gly Trp Ala Val Asp Trp
65                  70                  75
```

<210> 37965
<211> 160
<212> PRT
<213> A.fumigatus

<400> 37965

```
Glu Val Cys Leu Phe Thr Pro Cys Cys Pro Asn Gly Phe Tyr His Val
1               5                   10                  15
Gln Pro His His Pro Ser His Leu Arg Tyr Phe Ser Thr Pro His Thr
            20                  25                  30
Thr Ser Pro Asn Leu Lys Leu Pro Gln Gln Asn Thr Leu Pro Asn Leu
        35                  40                  45
Phe Tyr Gln Leu Ser Ile Lys Gln Thr Glu Arg Asn Asn Thr Met Ala
    50                  55                  60
Ser Leu Thr Asp Phe Phe Thr Ala Phe Asp Ala Ala Ala Ser Lys Glu
65                  70                  75                  80
Lys Phe Thr Pro Ala Leu Gln Ser Ala Ala Ala Ser Ile Asp Lys Ala
                85                  90                  95
Ala Leu Gln Ala Ala Leu Asp Ala Val Leu Ala Gly Gly Asp Asp Ala
            100                 105                 110
Thr Ala Ala Gly Asn Asp Ala Val Leu Lys Ala Gly Phe Glu Phe Ala
        115                 120                 125
Thr Glu Leu Val Lys Met Leu Glu Lys Glu Pro Gly Pro Glu Glu Lys
    130                 135                 140
Leu Gly Val Cys Pro Phe Ser Leu His Thr Pro Leu Gly Ile Thr Glu
145                 150                 155                 160
```

<210> 37966
<211> 118
<212> PRT
<213> A.fumigatus

<400> 37966

```
Ser Arg Pro Arg Leu Thr Met Phe Tyr Ser Glu Thr Leu Leu Ser Lys
1               5                   10                  15
```

```
Thr Gly Pro Leu Ala Arg Val Trp Leu Ser Ala Asn Leu Glu Arg Lys
            20                  25                  30
Leu Ser Lys Ser His Ile Leu Gln Ser Asp Ile Glu Ser Ser Val Asn
        35                  40                  45
Ala Ile Val Asp Gln Gly Gln Ala Pro Met Ala Leu Arg Leu Ser Gly
    50                  55                  60
Gln Leu Leu Leu Gly Val Val Arg Ile Tyr Ser Arg Lys Ala Arg Tyr
65                  70                  75                  80
Leu Leu Asp Asp Cys Asn Glu Ala Leu Met Lys Ile Lys Met Val Gly
                85                  90                  95
Leu Ile Ala Leu Ser Asp Gln Cys Leu Pro Ser Phe Thr Asp Met Cys
            100                 105                 110
Gly Ser Arg Arg Ser Val
        115
```

<210> 37967
<211> 167
<212> PRT
<213> A.fumigatus

<400> 37967

```
Pro Thr His Arg Leu Phe Thr Ala Pro Asp Ala Arg Ser Thr Val Glu
1               5                   10                  15
Leu Ser Thr Ala Ala Glu Asp Ala Leu Ala Gly Glu Phe Ala Leu Thr
            20                  25                  30
Arg Glu Ser Leu Ala Leu Leu Ala Ile Leu Pro Ile Arg Arg Thr Val
        35                  40                  45
Arg Ala Ala Gly Pro Asp Val Lys Glu Glu Ile Ser Leu Trp Thr Ser
    50                  55                  60
Asn Gly Ser Gly Gln Ser Lys Cys His Ile Leu Val Thr Ala Met Trp
65                  70                  75                  80
Leu Ser Val Arg Val Pro Val Leu Ser Leu His Thr Thr Phe Thr Asp
                85                  90                  95
Pro Arg Val Ser Thr Leu Gly Ser Leu Arg Met Ile Ala Pro Arg Leu
            100                 105                 110
Ala Ile Arg Ser Thr Pro Arg Ala Arg Val Thr Val Thr Met Ile Gly
        115                 120                 125
Ser Pro Ser Gly Met Ala Ala Thr Ala Arg Glu Thr Pro Met Val Asn
    130                 135                 140
Ile Ser Arg Ser Phe Arg Pro Cys Thr Asn Pro Ile Thr Thr Ile Asn
145                 150                 155                 160
Ala Ile Thr Pro Lys Glu Ile
                165
```

<210> 37968
<211> 518
<212> PRT
<213> A.fumigatus

<400> 37968

```
Ala Phe Arg Leu Thr Asn Asn Asn Glu Leu Thr Ser Thr Val Val Ala
1               5                   10                  15
Pro Gly Gly Ile Thr Leu Pro Asp Val Leu Thr Glu Ser Asp Leu Phe
            20                  25                  30
Met Asn Leu Asp Ser Ser Leu Leu Leu Ser Gln Thr Leu Asn Leu Glu
        35                  40                  45
```

```
Pro Glu Gly Lys Arg Gln Gly His Ser Met Asp Phe Gly Ser Gln Leu
    50                  55                  60
Leu Pro Asp Ser Ser Phe Arg Arg Ser Val Ser Gln Glu Pro Pro Arg
65                  70                  75                  80
Leu Glu Asp His Thr Leu Val Asp Leu Asn Phe Gly Asp Asp Asp Asp
                85                  90                  95
Thr His Ile Gly Arg Asp Phe Ser Met Glu Val Gly Arg Asp Ala Pro
            100                 105                 110
Ala Pro Arg Pro Phe Glu Asp Asp Leu Leu Ser Asp Ala Gly Lys Phe
        115                 120                 125
Asn Asp Val Asp Leu Gln Leu Asp Leu Gly Glu Asp Asp Ala Pro Leu
    130                 135                 140
Asp Lys Met Asp Leu Gly Glu Asp Gly Ala Gln Asp His Phe Asn Phe
145                 150                 155                 160
Asp Glu Thr Leu Asp Ile Gly Gly Asp Glu Glu Leu Thr Arg Glu Ala
                165                 170                 175
Glu Glu Arg Arg Gln Gln Arg Asp Ser Glu Ser Ala Met Thr Glu Leu
            180                 185                 190
Ser Glu Glu Glu Leu Asn Arg Leu Glu Ala Glu Asp Val His Leu Ser
        195                 200                 205
Lys Gly Gly Arg Gly Ile Leu Asp Glu Glu Tyr Ala Asp Gly Glu His
    210                 215                 220
Glu Asp Gly Glu Gln Gly Asp Asp Ile Thr Val Gln Gln Ala Gln Arg
225                 230                 235                 240
Ala Lys Arg Arg Lys Val Met Pro Val Met Asp Leu Asp Glu Ala Ile
                245                 250                 255
Asp Phe Lys Pro Ser His Ile Lys Glu Gln Gln Ala Asp Arg Ser Gly
            260                 265                 270
Ile Leu Lys Pro Ala Ala Phe Leu Pro Arg Asp Pro Val Leu Leu Thr
        275                 280                 285
Leu Met Asn Met Gln Lys Asn Gly Asp Phe Val Ser Asn Val Leu Gly
    290                 295                 300
Ala Gly Arg Gly Arg Gly Trp Ala Pro Glu Leu Arg Asp Leu Leu Ser
305                 310                 315                 320
Phe Asp Ala Ile Arg Lys Ala Gly Glu Leu Lys Arg Lys Arg Asp Ser
                325                 330                 335
Gly Ile Ala Asp Met Asp Val Ala Ala Ala Thr Ala Pro Ala Leu Glu
            340                 345                 350
Phe Gly Glu Glu Glu Ala Ile Val Pro Val Asp Glu Gly Val Gly Leu
        355                 360                 365
Asp Ser Thr Leu His Gln Arg Ser Glu Ile Glu Phe Pro Gly Asp Glu
    370                 375                 380
Glu Glu Gln Gly Leu His Met Ser Asp Asp Glu Gly Met His Leu Pro
385                 390                 395                 400
Val Glu Glu Met Asp Asp Thr Thr Val His Pro Val Asp Ser Gly Pro
                405                 410                 415
Val Ser Val Gly Thr Lys His Ala Val His Ile Leu Arg Asp Ala Leu
            420                 425                 430
Gly Glu Ser Ala Ala Asp Gln Lys Lys Ser Val Lys Phe Gln Asp Leu
        435                 440                 445
Leu Pro Glu Lys Arg Thr Ser Lys Ala Asp Ala Thr Lys Met Phe Phe
    450                 455                 460
Glu Val Leu Val Leu Ala Thr Lys Asp Ala Val Lys Val Glu Gln Gly
465                 470                 475                 480
Thr Asp Ser Val Gly Gly Pro Ile Lys Ile Arg Gly Lys Arg Ala Leu
                485                 490                 495
```

```
Trp Gly Ser Trp Ala Glu Glu Asn Thr Ser Ala Glu Ala Ala Ser Gln
            500                 505                 510
Pro Thr Glu Val Ala Ala
        515
```

<210> 37969
<211> 159
<212> PRT
<213> A.fumigatus

<400> 37969

```
Thr Val Met Ser Ser Pro Cys Ser Pro Ser Ser Cys Ser Pro Ser Ala
1               5                  10                  15
Tyr Ser Ser Ser Arg Ile Pro Arg Pro Pro Phe Asp Lys Cys Thr Ser
            20                  25                  30
Ser Ala Ser Ser Leu Leu Ser Ser Ser Ser Glu Ser Ser Val Ile Ala
        35                  40                  45
Asp Ser Glu Ser Arg Cys Cys Arg Arg Ser Ser Ala Ser Arg Val Ser
    50                  55                  60
Ser Ser Ser Pro Pro Ile Ser Lys Val Ser Ser Lys Leu Lys Trp Ser
65                  70                  75                  80
Trp Ala Pro Ser Ser Pro Arg Ser Ile Leu Ser Arg Gly Ala Ser Ser
                85                  90                  95
Ser Pro Arg Ser Ser Cys Lys Ser Thr Ser Leu Asn Leu Pro Ala Ser
            100                 105                 110
Leu Arg Arg Ser Ser Ser Asn Gly Arg Gly Ala Gly Ala Ser Arg Pro
        115                 120                 125
Thr Ser Met Leu Lys Ser Arg Pro Ile Trp Val Ser Ser Ser Ser Pro
    130                 135                 140
Lys Phe Lys Ser Thr Asn Val Trp Ser Ser Lys Arg Gly Gly Ser
145                 150                 155
```

<210> 37970
<211> 725
<212> PRT
<213> A.fumigatus

<400> 37970

```
Thr Ser Thr Ser Thr Tyr Ser Leu Leu Gly Pro Glu Glu Thr Ala Glu
1               5                  10                  15
Arg Leu Gln Thr Ser Leu Leu His Gly Leu Thr Pro Ala Glu Ala Glu
            20                  25                  30
Ile Arg Leu Leu Arg Asp Gly Pro Asn Glu Leu Pro His Glu Glu Pro
        35                  40                  45
Glu Pro Leu Trp Leu Arg Phe Leu Lys Gln Phe Lys Glu Thr Leu Ile
    50                  55                  60
Leu Leu Leu Leu Ala Ser Ala Ala Ile Ser Phe Phe Met Gly Asn Tyr
65                  70                  75                  80
Asp Asp Ala Val Ser Ile Thr Leu Ala Val Thr Ile Val Val Thr Val
                85                  90                  95
Gly Phe Val Gln Glu Tyr Arg Ser Glu Lys Ser Leu Glu Ala Leu Asn
            100                 105                 110
Arg Leu Val Pro His His Ala His Leu Ile Arg Asp Val Pro Pro Ser
        115                 120                 125
Ser Ala Pro Leu Met Asn Asn Ser Thr Thr Ala Ala Leu Gly Pro Asp
    130                 135                 140
```

```
Ile Glu Leu Glu Asp Leu Ala Ser Lys Ser Pro Ser Ser Ala Ser Ala
145                 150                 155                 160
Ala Ile Lys Ala Ser Ser Thr Val Leu Ala Ser Glu Leu Val Ala Gly
                165                 170                 175
Asp Leu Val Leu Phe Thr Thr Gly Asp Arg Ile Pro Ala Asp Ile Arg
            180                 185                 190
Ile Thr Ala Ala Thr Asp Leu Thr Ile Asp Glu Ser Asn Leu Thr Gly
        195                 200                 205
Glu Asn Glu Pro Val Ala Lys Tyr Pro Glu Ala Leu Arg Ser Thr Lys
    210                 215                 220
Ala Ala Val Ser His Ser Pro Lys Ile Val Ser Pro Pro Arg Ser Pro
225                 230                 235                 240
Phe Tyr Asp Ala Pro Ala Ser Gly Ala Val Gly Ala Asp Ile Arg Leu
                245                 250                 255
Asn Glu Gln His Asn Ile Ala Phe Met Gly Thr Leu Val Arg Ser Gly
            260                 265                 270
Tyr Gly Gln Gly Ile Val Ile Gly Thr Gly Ala Lys Thr Glu Phe Gly
        275                 280                 285
Ser Ile Ser Val Ser Leu Gln Glu Ile Glu Ser Pro Arg Thr Pro Leu
    290                 295                 300
Gln Leu Ser Met Asp Arg Leu Gly Gln Glu Leu Ser Tyr Ile Ser Phe
305                 310                 315                 320
Gly Val Ile Ala Leu Ile Val Val Ile Gly Leu Val Gln Gly Arg Lys
                325                 330                 335
Leu Leu Glu Met Phe Thr Ile Gly Val Ser Leu Ala Val Ala Ala Ile
            340                 345                 350
Pro Glu Gly Leu Pro Ile Ile Val Thr Val Thr Leu Ala Leu Gly Val
        355                 360                 365
Leu Arg Met Ala Lys Arg Gly Ala Ile Met Arg Arg Leu Pro Ser Val
    370                 375                 380
Glu Thr Leu Gly Ser Val Asn Val Val Cys Ser Asp Lys Thr Gly Thr
385                 390                 395                 400
Leu Thr Leu Asn His Met Ala Val Thr Lys Met Trp His Phe Asp Cys
                405                 410                 415
Pro Glu Pro Phe Glu Val His Asn Asp Ile Ser Ser Leu Thr Ser Gly
            420                 425                 430
Pro Ala Ala Arg Thr Val Leu Arg Ile Gly Asn Ile Ala Asn Asn Ala
        435                 440                 445
Arg Leu Ser Arg Val Ser Ala Asn Ser Pro Ala Ser Ala Ser Ser Ala
    450                 455                 460
Ala Val Leu Ser Ser Thr Val Asp Arg Ala Ser Gly Ala Val Lys Ser
465                 470                 475                 480
Arg Trp Val Gly Gln Pro Thr Asp Val Ala Ile Leu Asp Leu Leu Asp
                485                 490                 495
Thr Phe Gly Glu Asp Asp Leu Arg Asp Arg Ile Ser Arg Arg Val Ala
            500                 505                 510
Glu Thr Pro Phe Ser Ser Glu Arg Lys Trp Met Gly Val Ile Ile Gly
        515                 520                 525
Ser Ala Gln Asn Asp Ala Pro Ser Phe Thr Gly Ala Asn Asn Val Ala
    530                 535                 540
Tyr Ile Lys Gly Ala Leu Glu Gln Val Leu Thr Arg Cys Asp Thr Tyr
545                 550                 555                 560
Leu Thr Lys Asp Gly Arg Glu Val Ile Leu Asp Glu Pro Arg Arg His
                565                 570                 575
Thr Val Arg Gln Ala Ala Glu His Met Ala Ser Glu Gly Leu Arg Val
            580                 585                 590
```

```
Leu Ala Phe Ala Ser Gly Ala Val Arg Asp Thr Pro Gly Gly Gly Arg
        595                 600                 605
Val Phe Gly Ser Arg Thr Ser Thr Pro Leu Ser Ile Thr Ser Gln Gly
    610                 615                 620
Asp Glu Asp Asp Arg Tyr Thr Gly Leu Val Phe Ala Gly Leu Val Gly
625                 630                 635                 640
Met Asn Asp Pro Pro Arg Lys Asp Val His Lys Ser Ile Arg Arg Leu
                645                 650                 655
Met Ala Gly Gly Val Arg Val Ile Met Ile Thr Gly Asp Ala Glu Ser
            660                 665                 670
Thr Ala Val Ala Ile Ala Lys Lys Leu Gly Met Pro Val Arg Asp Ser
        675                 680                 685
Pro Gly Ser Arg Pro Val Leu Thr Gly Gln Asp Leu Asp Arg Met Ser
    690                 695                 700
Thr Ala Asp Leu Ala Gln Ala Val Phe Thr Thr Gly Leu Glu Gly Ser
705                 710                 715                 720
Thr Asp Val Leu Gln
                725
```

<210> 37971
<211> 176
<212> PRT
<213> A.fumigatus

<400> 37971

```
Pro Arg Ser Pro Glu Tyr Pro Met Leu Phe Glu Ser Glu Glu Glu Glu
1                 5                  10                  15
Met Asp Thr Tyr Ala Val Glu Leu Asn Ser Phe Val Asp Thr Val Leu
            20                  25                  30
Lys Met Ala Tyr Asp His Gly Gln Gly Arg Asn Met Ile Phe Ser Ser
        35                  40                  45
Phe Asn Pro Asp Ile Cys Leu Leu Ile Ala Phe Lys Gln Pro Ser Ile
    50                  55                  60
Pro Val Leu Phe Leu Thr Asp Ser Gly Ala Ser Pro Val Ser Asp Ile
65                  70                  75                  80
Arg Ala Ser Ser Leu Gln Glu Ala Ile Arg Phe Ala Ser Arg Trp Ser
                85                  90                  95
Leu Leu Gly Val Val Ser Gln Ala Glu Pro Leu Val Leu Cys Pro Arg
            100                 105                 110
Leu Val Arg Val Val Lys Glu Ser Gly Leu Val Cys Val Ser Tyr Gly
        115                 120                 125
Thr Leu Asn Asn Glu Pro Ala Asn Val Lys Val Arg Phe Gln Cys Tyr
    130                 135                 140
Pro Arg Ala Ala Ser Arg Ser Val Leu Lys Leu Arg Ile Ala Pro Ser
145                 150                 155                 160
Arg Arg Gly Asn Arg Cys Cys Asp Arg Arg Leu Arg Ser Arg His Ser
                165                 170                 175
```

<210> 37972
<211> 60
<212> PRT
<213> A.fumigatus

<400> 37972

```
Cys Leu Phe Lys His Cys Asn His His Val Arg Leu Leu Pro Trp Cys
1                 5                  10                  15
```

```
Gln Gly Lys Val Ile Arg Ala Thr Leu Thr Ser Ile Ile Cys Asp Asn
            20                  25                  30
Leu Val Tyr Ile Cys Thr Tyr Leu Asn Gly Arg Phe Arg Ile Ser Met
        35                  40                  45
Cys Ala Ser Thr Lys Arg Gln Pro Pro Thr Val Thr
    50                  55                  60
```

<210> 37973
<211> 64
<212> PRT
<213> A.fumigatus

<400> 37973

```
Ala Gln Gly Leu Ala Asn Gln Pro Leu Ser Asp Leu Val Tyr Pro His
1               5                   10                  15
His Ala Val Ile Asp Pro Val Ile Ile Arg Thr Asp Leu Pro Gln Arg
            20                  25                  30
Pro Tyr Ile Val Thr Ser Leu Asn Leu Pro Pro Asp Ser Thr Gln Lys
        35                  40                  45
Asn Glu Arg Arg Arg Cys Asp Gly Ala Leu Arg Asn Lys Cys Gln Arg
    50                  55                  60
```

<210> 37974
<211> 376
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (190)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37974

```
Leu Glu Cys Lys Asp Pro Ala Pro Ser Leu Leu Thr Ile Val Leu Asp
1               5                   10                  15
Thr Asn Pro His Ala Trp Ala Leu Leu Glu Asp Ser Leu Pro Leu Ser
            20                  25                  30
Thr Ala Ile Ala Asn Ile Leu Val Phe Val Asn Ala His Leu Ala Cys
        35                  40                  45
Asn Tyr Ala Asn Glu Val Ala Val Val Ala Ser His Ser Gln Lys Ala
    50                  55                  60
Thr Trp Leu Tyr Pro Cys Glu Thr Lys Glu Asp Asn Gly Lys Ser Thr
65                  70                  75                  80
Ser Lys Thr Gly Arg Asp Glu Asp Gly Asp Val Ala Met Asn Gly Ser
                85                  90                  95
Gly Ala Gly Ala Gly Ala Gly Phe Ala Ala Ala Gln Val Asn Lys Tyr
            100                 105                 110
Arg Pro Phe Arg Ile Val Glu Glu Gln Val Thr Arg Asn Leu Arg Glu
        115                 120                 125
Leu Met Asp Ser Thr Ser Gly Ala Asp Val Ala Ala Thr Thr Ser Thr
    130                 135                 140
Met Met Ala Gly Ala Leu Thr Leu Ala Leu Ser His Ile Asn Arg Arg
145                 150                 155                 160
Ser Ile Ala Trp Ala Asp Ala His Gly Gly Thr Ala Ala Gly Pro Pro
                165                 170                 175
Gly Ala Val Glu Ala Gly Ser Ser Gly Ala Gly Arg Ala Xaa Ala Asp
```

```
            180                 185                 190
Thr Gly Ala Glu Gly Leu Gln Ser Arg Ile Leu Ile Ile Ser Val Ser
        195                 200                 205
Gly Ser Thr Asp Ser Ala His Gln Tyr Ile Pro Ile Met Asn Cys Ile
    210                 215                 220
Phe Ala Cys Gln Arg Leu His Ile Pro Ile Asp Val Cys Lys Leu Ser
225                 230                 235                 240
Gly Asp Ala Val Phe Leu Gln Gln Ala Ser Asp Ala Thr Lys Gly Val
                245                 250                 255
Tyr Met Ser Leu Ser Glu Pro Arg Gly Leu Leu Gln Tyr Leu Met Met
            260                 265                 270
Ala Phe Leu Pro Asp Gln Arg Ser Arg Arg His Leu Val Ile Pro Thr
        275                 280                 285
Arg Val Asp Val Asp Phe Arg Ala Ala Cys Phe Cys His Arg Arg Val
    290                 295                 300
Val Asp Ile Gly Phe Val Cys Ser Ile Cys Leu Ser Ile Phe Cys Glu
305                 310                 315                 320
Pro Pro Glu Asn Gly Asp Cys Leu Thr Cys Gly Thr His Leu Glu Met
                325                 330                 335
Gly Asp Tyr Gly Ala Lys Pro Ala Val Val Ala Arg Lys Lys Lys Lys
            340                 345                 350
Lys Lys Ala Arg Thr Asn Gly Ala Ser Ala Thr Ala Thr Pro Thr Pro
        355                 360                 365
Thr Pro Thr Pro Thr Pro Gly Pro
    370                 375
```

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<210> 37975
<211> 374
<212> PRT
<213> A.fumigatus

<400> 37975

```
Thr Glu Arg Arg Cys Asn Val Ser Pro Arg Gly Ser His Thr Pro Arg
1               5                   10                  15
Ser Thr Glu Pro Ile Lys Thr Cys Gly His Arg Tyr Leu Thr Asp Lys
            20                  25                  30
Ala Met Ile Val Val Ser Leu Gly Thr Met Asp Met Arg Lys His Met
        35                  40                  45
Glu Ala Val Asn Leu Asp Arg Ile Pro Met Val Asn Ala His Ser Thr
    50                  55                  60
Gln Leu Asp Thr Ala Leu Ser Ile Val Val Ser Ala Asn Gly Ala Glu
65                  70                  75                  80
Gly Glu Pro Glu Ile Ile Asp Leu Pro Val Gln Asp Asn Ile Ser Thr
                85                  90                  95
Glu Pro Ile Val Phe His Ala Ala Asp Pro Ser Lys Val Arg Leu Leu
            100                 105                 110
Phe Asp Leu Ile Pro Thr Tyr Ala Gly Ser Lys Asp Gln Ile Val Gly
        115                 120                 125
Arg Gly Val Ala Leu Leu Ser Ser Val Lys Pro Thr Ile Gly Ser His
    130                 135                 140
Arg Ile Asn Leu Lys Gly Asp Ser Thr Val Pro Ile Met Ala Ala Asn
145                 150                 155                 160
Thr Leu Glu Val Ile Gly Ser Val Thr Phe Asn Phe Leu Ile Ile Thr
                165                 170                 175
Pro Phe Lys His Pro Asn Met Ser Ile Thr Gly Asn Arg Thr Tyr Tyr
            180                 185                 190
```

```
Lys Ser Met Ser Ser Thr Met Val Ile Gly His Arg Gly Leu Gly Lys
        195                 200                 205
Asn Leu Ala Ser Arg Arg Ser Leu Gln Leu Gly Glu Asn Thr Leu Pro
    210                 215                 220
Ser Phe Ile Ala Ala Ala Asn Leu Gly Ala Ser Tyr Val Glu Phe Asp
225                 230                 235                 240
Val Gln Leu Thr Lys Asp His Val Pro Val Ile Tyr His Asp Phe Leu
                245                 250                 255
Val Ser Glu Thr Gly Ile Asp Ala Pro Val His Thr Leu Thr Leu Glu
            260                 265                 270
Gln Phe Leu Gln Leu Gly Glu Ser Gly Val Ser Arg Arg Ser Thr Ser
        275                 280                 285
Pro Tyr Gln Ser Pro Asp Ala Thr Gly Lys Lys Met Gly Ser Pro Ser
    290                 295                 300
Phe Arg Pro Arg Ser Met Ser Val Gly Glu Phe Glu Tyr Asp Ala Ala
305                 310                 315                 320
Glu Leu Asn Glu Arg Ile Lys His Thr Arg Asp Phe Lys Lys Lys Gly
                325                 330                 335
Phe Lys Gly Asn Thr Arg Gly Asn His Ile Gln Ala Pro Phe Ala Thr
            340                 345                 350
Leu Glu Glu Leu Phe Lys Lys Leu Pro Lys Ser Val Gly Phe Asn Ile
        355                 360                 365
Glu Leu Ser Glu Phe Leu
    370

<210> 37976
<211> 260
<212> PRT
<213> A.fumigatus

<400> 37976
Leu Thr Leu Ser Ile Ala Gln Gly Ala Leu Arg Ala Pro Val Val Asn
1               5                   10                  15
Pro Ala Asp Lys Tyr Gln Asp Lys Thr Glu Ser Leu His Lys Tyr Gly
            20                  25                  30
Gln Tyr Val Met Ser Cys Leu Pro Lys Tyr Val Gln Gln Phe Ser Val
        35                  40                  45
Trp Lys Asp Glu Leu Thr Ile Tyr Val Pro Pro Thr Gly Ile Ile Pro
    50                  55                  60
Val Met Ser Phe Leu Lys Tyr His Thr Ala Ala Glu Phe Thr Gln Ile
65                  70                  75                  80
Ser Asp Ile Thr Ala Gly Asp Phe Pro Thr Arg Asp Gln Arg Phe Glu
                85                  90                  95
Val Val Tyr Asn Leu Leu Ser Ile Arg Tyr Asn Ser Arg Ile Arg Val
            100                 105                 110
Lys Thr Tyr Ala Asp Glu Ala Ser Pro Val Pro Ser Val Thr Gly Leu
        115                 120                 125
Tyr Glu Gly Ala Leu Trp Tyr Glu Arg Glu Val Tyr Asp Leu Phe Gly
    130                 135                 140
Val Phe Phe Ser Gly His Pro Asp Leu Arg Arg Ile Met Thr Asp Tyr
145                 150                 155                 160
Gly Phe Asp Gly His Pro Leu Arg Lys Asp Phe Pro Leu Thr Gly Tyr
                165                 170                 175
Thr Glu Leu Arg Tyr Asp Glu Glu Lys Lys Arg Ile Val Ile Glu Pro
            180                 185                 190
Leu Glu Leu Thr Gln Ala Phe Arg Asn Phe Glu Gly Gly Thr Thr Ala
```

```
        195                 200                 205
Trp Glu Pro Val Gly Ser Gly Val Asp Arg Lys Pro Asp Ser Val Cys
    210                 215                 220
Leu Val Thr Asn Ser Cys Glu Ala Met Glu Thr Asn Met Val Gln Tyr
225                 230                 235                 240
Ser Ser Ser Ser Pro Pro Leu Ser Arg Ser Ile Arg Gln Gly Leu Pro
                245                 250                 255
Ile Arg Leu Cys
            260
```

<210> 37977
<211> 86
<212> PRT
<213> A.fumigatus

<400> 37977

```
Pro Thr Phe Pro Phe Pro Leu Pro Phe Leu Phe Phe Asn Ile Phe Ala
1               5                   10                  15
Phe Leu Ser Arg Val Leu Trp Ile Phe Leu Thr Ala Leu Leu Ser Phe
            20                  25                  30
Gln Arg Pro Ile His Phe Phe Leu Gly Phe Phe Ala Ser Phe Thr Phe
        35                  40                  45
Pro Leu Leu Ser Gly Ser Arg Leu Thr Gly Ile Gly Val Ser His Pro
    50                  55                  60
Ser Ala His Thr Tyr Ser Ile Ser Thr Leu Ser Gln Gly Arg Ser Leu
65                  70                  75                  80
Cys Arg Val Ala Arg Lys
                85
```

<210> 37978
<211> 130
<212> PRT
<213> A.fumigatus

<400> 37978

```
Arg Ile Arg Phe His Thr Arg Phe Lys Ala Asp Leu Ala Leu Lys His
1               5                   10                  15
Arg Lys Ala Ala Ala Ala Lys Lys Lys Glu Ala Glu Lys Arg Glu Ile
            20                  25                  30
Glu Ala Ser Ser Arg Lys Asn Leu Ala Gly Val Arg Val Val Gln Lys
        35                  40                  45
Asn Leu Val Tyr Val Ile Gly Leu Asn Pro Thr Ile Arg Asp Glu Ser
    50                  55                  60
Gln Leu Leu Gln Thr Leu Arg Gly Lys Asp Tyr Phe Gly Gln Tyr Gly
65                  70                  75                  80
Glu Ile Glu Lys Ile Val Val Ser Lys Ala Lys Pro Gly Gly Asn Pro
                85                  90                  95
Asn Gln Gly Ile Gly Val Tyr Val Thr Tyr Ala Thr Lys Ala Asp Ala
            100                 105                 110
Ala Thr Cys Ile Ala Ala Val Asp Gly Ser Thr Asn Gly Asp Arg Val
        115                 120                 125
Leu Arg
    130
```

<210> 37979
<211> 63

<212> PRT
<213> A.fumigatus

<400> 37979
Arg Arg Val Leu Val Cys Leu Lys Cys Phe Pro Ile Ala Gly Val Ile
1 5 10 15
Arg Gln Leu Ala Asp Asn Phe Asp Leu Ser Pro Leu Cys Ile Glu Glu
20 25 30
Phe Asp Leu Ser Asp Lys Asn Phe Lys Pro Cys Pro Cys Gly Tyr Gln
35 40 45
Val Cys Cys Ser Leu Leu Pro Ser Gly Val His Trp Cys Lys Phe
50 55 60

<210> 37980
<211> 184
<212> PRT
<213> A.fumigatus

<400> 37980
Phe Tyr Cys Arg Ala Gln Tyr Gly Thr Thr Lys Tyr Cys Ser Ser Phe
1 5 10 15
Leu Arg Asn Glu Gln Cys Asn Asn Arg Asn Cys Thr Phe Leu His Glu
20 25 30
Thr Gly Glu Asp Ser Asp Ser Tyr Ser Arg Gln Asp Leu Ser Ser Met
35 40 45
Asn Thr Leu Ser Ser Gln Arg Pro Asn Gly Ile Pro Ser Gly Pro Ser
50 55 60
His Ala Ile Pro Ala His Val Ala Arg Ser Ser Ala Leu Pro Thr Ser
65 70 75 80
Gln Pro Met Arg Arg Gln Ala Ser Lys Asp Asp Thr Thr Gly Met Arg
85 90 95
Gln Pro Asp Gly Ser Ala Leu Pro Ser Ser Ala Ser Trp Ala Asn Lys
100 105 110
Asp Ser Ala Ile Asn Arg Thr Arg Arg Ala Ser Leu Ala Gly Ser Gln
115 120 125
Ala Ser Gln Ser Pro Arg Pro Val His Ala Thr Val Ala Gln Gly Val
130 135 140
Glu Glu Val Lys Lys Ala Glu Lys Gln Ser Gln Glu Arg Arg Gln Thr
145 150 155 160
Arg Ala Pro Ser Glu Ala Arg Pro Ala Asn Leu Gln Arg Ser Val Gln
165 170 175
Thr Arg Pro Asp Pro Ile Ala Pro
180

<210> 37981
<211> 434
<212> PRT
<213> A.fumigatus

<400> 37981
Leu Glu Asn Ile Leu Lys Ala Val Lys Ser Pro Asp Phe Lys Phe Ile
1 5 10 15
Phe Ser Ala Ala Gly Leu Ser Thr Glu Glu Val Ala Leu Ile Glu Asn
20 25 30
His Pro Ser Phe Ile Asp Pro Tyr Gly Gly Val Lys Arg Arg Ala Met
35 40 45

```
Arg Glu Lys Ala Glu Gln Glu Arg Ala Lys Arg Glu Gln Glu Leu Leu
    50                  55                  60
Gln Asn Ala Ala Ala Glu Glu Glu Ser Arg Glu Ser Gly Ser Leu Gln
65                  70                  75                  80
Leu Gly Gly Glu Pro Asp Asp Ala His Pro Pro Arg Gly Arg Gly Gly
                85                  90                  95
Arg Asp Ser His Gly Ala Ile Gln Pro Pro Ser Gln Gln Gly Thr Thr
            100                 105                 110
Thr Asn Ser Ala Ile Gly Ser Pro Val Ser Ala Ala Ser His Gln Phe
        115                 120                 125
Gln Gly Leu Asn Leu Gly Gly Arg Ser Leu Thr Pro Leu Gln Gln Gln
    130                 135                 140
Gln Leu Met Leu Leu Lys Ser Ala Gly Ser Gln Gln Ala Gly Leu Val
145                 150                 155                 160
Asp Pro Leu Gln Ser Gly Leu Gly Ser Ser Val Leu Asp Gln Ala Ser
                165                 170                 175
Gln Val Arg Gln Gly Leu Leu Gln Ser Gln Met Ala Gln Phe Asn Ala
            180                 185                 190
Leu Gln Ala Gln Asn Arg Gln Ser Ser Arg Phe Ser Phe Thr Asn Asp
        195                 200                 205
Ala Asn Ala Lys Asn Leu Pro Asn Val Arg Met Leu Ser Gln Gln Ala
    210                 215                 220
Gly Leu Met Gln Ser Gly Thr Pro Asn Pro Leu Ala Ala Pro Ser Pro
225                 230                 235                 240
Gln His Gly Leu Ala Asn Asn Phe Tyr Thr Ser Gly Val Gln Gly Pro
                245                 250                 255
Pro Pro Gly Leu Lys Thr Ala Gly Thr Pro Pro Ile Ser Gly Gly Gly
            260                 265                 270
Met Phe Ala Gln Gly His Gly Phe Thr Thr Asn Ala Asn Leu Gly Leu
        275                 280                 285
Gly Gly Asn Val Gly Lys Gln Glu Ala Asn Pro Glu Leu Met Arg Glu
    290                 295                 300
Leu Leu Arg Gly Arg Ser Gly Thr Asn Thr Gly Gly Leu Gln Gly Gln
305                 310                 315                 320
Glu Ala Ala Lys Arg Glu Phe Met Phe Pro Phe Leu Gln Gln His Gln
                325                 330                 335
Thr Pro Pro Pro Leu Thr Pro Ala Asn Gly Leu Leu Ser Ser Phe Tyr
            340                 345                 350
Gly Ser Gln Ala Gly Thr Phe Ser Glu Ala Gly Pro Gln Lys Gln Lys
        355                 360                 365
Lys Lys Gly Lys Lys His Arg His Ala Asn Thr Ser Ser Gly Gly Gly
    370                 375                 380
Gly Val Val Asp Leu Ala Asp Pro Ser Ile Leu Gln Ala Arg Met His
385                 390                 395                 400
Gln Val Gly Ala Asn Thr Thr Ala Gly Gln Ala Leu Tyr Gly Ser Gln
                405                 410                 415
Gly Gln Gly Gly Tyr Asn His Ser Met Met Tyr Gly Gly Gly Phe Asn
            420                 425                 430
Arg Trp
```

<210> 37982
<211> 352
<212> PRT
<213> A.fumigatus

<400> 37982
Asp Glu Trp Asn Asp Thr Ala Ser Ala Ala Pro Arg Asp Arg Asn His
1 5 10 15
Val Thr Ile Ser Pro Lys Arg Gln Val Leu Pro Ala Val Ile Ala Val
20 25 30
Cys Ser Lys Lys Leu Phe Leu Pro Asn His Thr Pro Pro Ser Ser Glu
35 40 45
Gly Thr Leu Lys Phe Leu Gly Arg Ser Gln Arg Ala Thr Asp Val Ser
50 55 60
Ala Gln Leu Gly Leu Ser Leu Cys His Leu Trp Leu Ile Leu Glu Phe
65 70 75 80
Val Ser Ile Met Asp Glu Leu Phe Asp Val Phe Glu Asp Gln Pro Gln
85 90 95
Ala Ala Ala Lys Val Thr Asp Val Ala Pro Lys Arg Pro Lys Lys Asp
100 105 110
Lys Ser Lys Lys Arg Gln Val Asn Gly Asp Val Lys Glu Asn Gly Ala
115 120 125
Ala Thr Glu Pro Lys Glu Asp Ile Glu Ile Pro Asp Ala Pro Thr Gly
130 135 140
Glu Leu Ala Asp Gly Glu Gln Ala Glu Ala Pro Ala Thr Glu Asn Asn
145 150 155 160
Glu Gln Gln Pro Asp Ala Lys Arg Pro Arg Leu Glu Lys Glu Pro Gln
165 170 175
Pro Val Leu Ala Asp Glu Phe Glu Thr Ala Gln Glu Arg Glu Val Ala
180 185 190
Ala Ser Ala Gly Leu Gln Ala Ala Lys Glu Thr Thr Ser Val Lys Leu
195 200 205
Ser His Gln Val Arg His Gln Val Ala Ile Pro Pro Asn Tyr Pro Tyr
210 215 220
Val Pro Ile Ser Gln His Lys Pro Pro Glu Asn Pro Ala Arg Val Trp
225 230 235 240
Pro Phe Thr Leu Asp Pro Phe Gln Gln Val Ala Val Ala Ser Ile Gln
245 250 255
Arg Glu Glu Ser Val Leu Val Ser Ala His Thr Ser Ala Gly Lys Thr
260 265 270
Val Val Ala Glu Tyr Ala Ile Ala Gln Ser Leu Lys Asn Asn Gln Arg
275 280 285
Val Ile Tyr Thr Ser Pro Ile Lys Ala Leu Ser Asn Gln Lys Tyr Arg
290 295 300
Glu Phe Ala Ala Glu Phe Gly Asp Val Gly Leu Met Thr Gly Asp Val
305 310 315 320
Thr Ile Asn Pro Thr Ala Thr Cys Leu Val Met Thr Thr Glu Val Gly
325 330 335
Arg His Asp Ser Ser Ser Ala Ser Trp Met Phe Ala Asp Ser Cys Ala
340 345 350

<210> 37983
<211> 259
<212> PRT
<213> A.fumigatus

<400> 37983
Ser Leu Asp Asn Arg Lys Glu Asp Ile Cys Ala Asn Pro Ile Ala Glu
1 5 10 15
Leu Gln Glu Phe Glu Glu Lys Arg Ala Asn Met Thr Ile Pro Asp Glu
20 25 30

```
Gly Thr Ile Arg Glu Tyr Tyr Glu Leu Arg Thr Gln Leu Asp Lys Tyr
        35                  40                  45
Ala Asp Asp Ile Gln Ala Val Ile Ser His Pro Asp Tyr Ser Leu Pro
    50                  55                  60
Phe Met Leu Pro Gly Arg Leu Val His Ile Lys His Lys Asp Lys Asp
65                  70                  75                  80
Phe Gly Trp Gly Val Val Val Asn Tyr Lys Gln Arg Lys Pro Pro Lys
                85                  90                  95
Asn Ser Thr Glu Glu Ile Pro Arg Asp Lys Arg Tyr Val Val Asp Val
            100                 105                 110
Leu Leu Asn Ile Ala Glu Gly Pro Ser Val Ala Thr Lys Thr Phe Glu
        115                 120                 125
Glu Leu Pro Ser Gly Val Arg Pro Val Lys Glu Gly Lys Asn Ser Arg
    130                 135                 140
Met Glu Val Val Pro Val Leu Thr Glu Cys Ile Arg Ala Ile Ser His
145                 150                 155                 160
Ile Arg Met Lys Leu Pro Lys Asp Leu Asn Pro Lys Glu Ala Lys Asn
                165                 170                 175
Gly Val Lys Lys Ser Leu Ala Glu Ile His Lys Arg Phe Pro Asp Gly
            180                 185                 190
Ile Ala Thr Leu Asp Pro Ile Glu Asp Met Asn Ile Lys Asp Glu Ser
        195                 200                 205
Phe Lys Lys Leu Leu Arg Val Arg Pro Tyr Ile Phe Phe Cys Ile Tyr
    210                 215                 220
Phe Val Phe Cys Ala Trp Leu Thr Ile Ile Thr Glu Ser Gly Gly Pro
225                 230                 235                 240
Arg Val Ser Phe Ala Phe Gln Pro Thr Ala Gln Leu Thr Pro Pro Thr
                245                 250                 255
Arg Thr Leu
```

<210> 37984
<211> 400
<212> PRT
<213> A.fumigatus

```
<400> 37984
Val Ile Gly Ser Thr Ala Glu Pro Glu Lys Leu Leu Thr Ala Met Ala
1               5                   10                  15
Val Arg Gly Val Val Trp Glu Glu Thr Ile Ile Leu Leu Pro Asp Lys
            20                  25                  30
Val Arg Tyr Val Phe Leu Ser Ala Thr Ile Pro Asn Ala Met Gln Phe
        35                  40                  45
Ala Glu Trp Ile Val Lys Met His Asn Gln Pro Cys His Val Val Tyr
    50                  55                  60
Thr Asp Phe Arg Pro Thr Pro Leu Gln His Tyr Phe Phe Pro Ala Gly
65                  70                  75                  80
Gly Glu Gly Ile Phe Leu Val Val Asp Glu Lys Gly Ala Phe Arg Glu
                85                  90                  95
Glu Asn Phe Gln Lys Ala Met Gly Ser Ile Ala Asp Lys Lys Gly Asp
            100                 105                 110
Asp Pro Ser Asp Ala Met Ala Lys Arg Lys Gly Lys Gly Lys Asp Lys
        115                 120                 125
Arg Leu Asn Lys Gly Gly Asn Glu Gly Pro Ser Asp Ile Tyr Lys Ile
    130                 135                 140
Val Lys Met Ile Met Leu Lys Asn Leu Asn Pro Val Ile Val Phe Ser
```

```
145                 150                 155                 160
Phe Ser Lys Arg Glu Cys Glu Ala Cys Ala Leu Lys Met Ser Thr Leu
                165                 170                 175
Ala Phe Asn Asp Asp Ser Glu Lys Glu Met Val Ser Lys Val Phe Asn
            180                 185                 190
Ser Ala Ile Glu Met Leu Ser Glu Glu Asp Arg Asn Leu Pro Gln Ile
        195                 200                 205
Gln Asn Ile Leu Pro Leu Leu Arg Arg Gly Ile Gly Val His His Ser
    210                 215                 220
Gly Leu Leu Pro Ile Leu Lys Glu Thr Ile Glu Ile Leu Phe Gln Glu
225                 230                 235                 240
Gly Leu Ile Lys Val Leu Phe Ala Thr Glu Thr Phe Ser Ile Gly Leu
                245                 250                 255
Asn Met Pro Ala Lys Thr Val Val Phe Thr Ser Val Arg Lys Phe Asp
            260                 265                 270
Gly Phe Ser Gln Arg Trp Val Thr Pro Ser Glu Phe Val Gln Met Ser
        275                 280                 285
Gly Arg Ala Gly Arg Arg Gly Leu Asp Asp Arg Gly Ile Val Ile Met
    290                 295                 300
Met Val Gly Glu Glu Met Asp Pro Ala Val Ala Lys Glu Ile Val Arg
305                 310                 315                 320
Gly Glu Gln Asp Arg Leu Asn Ser Ala Phe His Leu Gly Tyr Asn Met
                325                 330                 335
Ile Leu Asn Leu Met Arg Val Glu Gly Ile Ser Pro Glu Phe Met Leu
            340                 345                 350
Glu Arg Cys Phe Tyr Gln Phe Gln Asn Thr Ala Gly Val Ala Asp Leu
        355                 360                 365
Glu Lys Arg Met Leu Asn Arg Leu Ile Thr Gly Arg Arg Ile Phe Val
    370                 375                 380
Leu Thr Leu Leu Gln Asn Ser Arg Asn Leu Lys Lys Arg Gly Pro Thr
385                 390                 395                 400

<210> 37985
<211> 275
<212> PRT
<213> A.fumigatus

<400> 37985
Leu Ser Ser Gln Lys Val Glu Val Leu Glu Ser Arg Leu Leu Ser Asn
1               5                   10                  15
Pro Leu His Asn Ser Pro Arg Leu Pro Glu Leu Tyr Glu Gln Tyr Ser
            20                  25                  30
Glu Lys Val Glu Leu Gly Thr Lys Ile Lys Glu Thr Lys Lys Lys Ile
        35                  40                  45
Ser Glu Ala Met Ser Ile Met Gln Leu Asp Glu Leu Lys Cys Arg Lys
    50                  55                  60
Arg Val Leu Arg Arg Phe Gly Phe Ile Asn Glu Ala Glu Val Val Gln
65                  70                  75                  80
Leu Lys Ala Arg Val Ala Cys Glu Ile Ser Thr Gly Asp Glu Leu Met
                85                  90                  95
Leu Ser Glu Leu Leu Phe Asn Gly Phe Phe Asn Lys Leu Thr Pro Glu
            100                 105                 110
Gln Ile Ala Ala Val Leu Ser Val Phe Val Phe Glu Glu Lys Ser Lys
        115                 120                 125
Glu Thr Pro Ala Leu Thr Arg Asp Glu Leu Ala Lys Pro Leu Lys Glu
    130                 135                 140
```

```
Ile Gln Ala Gln Ala Arg Ile Val Ala Lys Val Ser Gln Glu Ser Lys
145                 150                 155                 160
Leu Ala Val Asn Glu Glu Glu Tyr Val Asn Ser Phe His Trp Glu Leu
                165                 170                 175
Met Glu Val Ile Tyr Glu Trp Ala Asn Gly Lys Ser Phe Ala Asp Ile
            180                 185                 190
Trp Tyr Val Val Tyr Leu Ser Ala Leu Ser Ser Gln Ser Pro Leu Gln
        195                 200                 205
Lys Leu Thr Cys Leu Ser His Ser Gly Met Thr Asp Val Tyr Glu Gly
    210                 215                 220
Ser Leu Ile Arg Val Phe Arg Arg Leu Glu Glu Cys Leu Arg Gln Met
225                 230                 235                 240
Ala Gln Ala Ser Lys Val Met Gly Asn Glu Glu Leu Glu Ser Lys Phe
                245                 250                 255
Glu Glu Ala Leu Thr Lys Val Arg Arg Asp Ile Val Ala Ala Gln Ser
            260                 265                 270
Leu Tyr Leu
        275
```

<210> 37986
<211> 117
<212> PRT
<213> A.fumigatus

<400> 37986

```
Gly Leu Arg Gln Leu Val Pro Arg Glu Ser Arg Ser Phe Phe Gly Leu
1               5                   10                  15
Leu Leu Glu Asn Glu Tyr Thr Gln Tyr Ser Ser Asp Leu Phe Arg Ser
            20                  25                  30
Lys Phe Val Glu Glu Thr Val Glu Lys Lys Leu Ala Glu His Glu Leu
        35                  40                  45
Ile Ser Arg Ala Asp Leu Ala Gly Asp Ser Cys Leu Gln Leu His Asp
    50                  55                  60
Phe Gly Leu Val Asp Glu Thr Glu Pro Thr Lys Tyr Pro Leu Thr Ala
65                  70                  75                  80
Leu Glu Leu Ile Lys Leu His Asp Gly His Ser Leu Gly Asn Leu Leu
                85                  90                  95
Leu Arg Leu Leu Tyr Leu Arg Pro Gln Leu Tyr Leu Leu Gly Ile Leu
            100                 105                 110
Leu Ile Lys Phe Trp
        115
```

<210> 37987
<211> 79
<212> PRT
<213> A.fumigatus

<400> 37987

```
Arg Gly Val Phe Ala Gly Gln Pro Ser Ser Gln His Leu Ile Val Ser
1               5                   10                  15
Thr Pro Ala Ser Phe Ile Pro Val Ala Ile Phe Arg Leu Gly Ala Ser
            20                  25                  30
Met Leu Ser Trp Ser Trp Ile Ser His Glu Pro Trp Asn Gly Ser Leu
        35                  40                  45
Gly Tyr Leu Ser Tyr Gln Gln Ser Asn Gln Cys Ser Pro Leu Thr His
    50                  55                  60
```

```
Asn Phe Pro Trp Ser Ala Glu Trp Leu Thr Pro Tyr Ser Ile Gly
65                  70                  75

<210> 37988
<211> 90
<212> PRT
<213> A.fumigatus

<400> 37988
Val Ser Leu Ile Gly Pro Ile Tyr Ala Trp Ser Tyr Asn Pro Ser Asp
1               5                  10                  15
Asp Thr Ser His Asn Leu Pro Pro Phe His Ile Ser Val Tyr Leu Phe
            20                  25                  30
Leu Phe Glu Arg Phe Leu Ser His Ser Thr Thr Ala Phe Leu Tyr Thr
        35                  40                  45
Ile His Phe Leu Leu Phe Glu Gly Tyr Phe Val Gln Ser Leu Glu Thr
    50                  55                  60
Arg Phe Asp Lys Asp Leu Cys Phe Pro Val Leu Phe Ala Phe Asp Ile
65                  70                  75                  80
Phe Ser Val Leu Phe Val Cys Asp Thr Leu
                85                  90

<210> 37989
<211> 151
<212> PRT
<213> A.fumigatus

<400> 37989
Glu Glu Leu Ala Gln Ala Asn Ser Lys Ile Glu Glu Leu Glu Gln Gln
1               5                  10                  15
Asn Ser Cys Leu Arg Asp Asn Leu Asp Ala Lys Thr Ser Glu Leu Ala
            20                  25                  30
Glu Leu Thr Gln Asp Ile Glu Arg Lys Ser Asn Glu Ile Val Thr Leu
        35                  40                  45
Arg Ser Arg Ser Asn Leu Ser Gln Gln Asn Trp Leu Lys Glu Lys Glu
    50                  55                  60
Glu Leu Leu Gln Gln Glu Ser Tyr Leu Gln Ser Glu Phe Glu Gln Ala
65                  70                  75                  80
Lys Glu Ala Met His Asn Trp Glu Ile Leu Ala Met Glu Glu Arg Ser
                85                  90                  95
Ile Arg Glu Ser Leu Gly Glu Lys Val Ile Asp Leu Glu Glu Gln Leu
            100                 105                 110
Val Ala Leu Lys Asp Ser Tyr Glu Lys Val Ala Cys Glu Arg Asp Ser
        115                 120                 125
Gln Ile Ala Thr Val Asp Gly Leu Gln Arg Ala Leu Gln Glu Ile Gln
    130                 135                 140
Ser Gly Arg Ala Tyr Pro Val
145                 150

<210> 37990
<211> 101
<212> PRT
<213> A.fumigatus

<400> 37990
Leu Phe Leu Ala Arg Lys Gln Glu Leu Arg Asp Leu Val Glu Ser Ser
```

```
1               5                   10                  15
Asn Thr Gln Leu Glu Glu Leu Arg Arg Ala Leu Gln Gly Ala Glu Ala
            20                  25                  30
Lys Ala Phe Glu Ala Glu Ser Ala Leu Gln Ala Ala Gln Lys Glu Leu
        35                  40                  45
Glu Arg Val Lys Pro Phe Glu Lys Glu Val Lys Glu Lys Asn Leu Leu
    50                  55                  60
Ile Gly Lys Leu Arg His Glu Ala Val Thr Leu Asn Asp His Leu Thr
65                  70                  75                  80
Lys Ala Leu Arg Phe Leu Lys Lys Gly Arg Ala Glu Asp Asn Val Asp
                85                  90                  95
Arg Leu Val Arg Ile
            100
```

<210> 37991
<211> 91
<212> PRT
<213> A.fumigatus

<400> 37991

```
Val Ile Ser Leu Lys Ser Trp Ser Trp Ile Tyr Asp Glu Gly Ser Ala
1               5                   10                  15
Leu Asn Arg Gly Met Asn Leu Lys Val Asp Arg Gln Val Asn Arg Leu
            20                  25                  30
Pro Tyr Glu Met Ala Arg Thr Val Ile Lys Glu Val Asp Ser Ser Thr
        35                  40                  45
Glu Tyr Val Val Asp Phe Pro Thr Leu Lys Phe Pro Asn Leu Glu Asn
    50                  55                  60
Pro Thr Pro Leu Leu Leu Asn Leu Phe Ser Gly Ala Tyr Gln Arg Cys
65                  70                  75                  80
Ile Lys Arg Glu Ile Ile Ser Glu Leu Phe Cys
                85                  90
```

<210> 37992
<211> 143
<212> PRT
<213> A.fumigatus

<400> 37992

```
Asp Trp Glu Val Lys Leu Ile Ser Gly Ala Gly Asn Lys Lys Asp Asn
1               5                   10                  15
Ile Thr Val Ile Tyr Thr Pro Trp Ser Asn Leu Leu Lys Asp Gly Ser
            20                  25                  30
Met Ala Thr Gly Gln Val Ser Phe His Asn Pro Lys Met Val Arg Lys
        35                  40                  45
Val Tyr Val Arg Gln Arg Glu Asn Ala Ile Val Asn Arg Leu Asn Lys
    50                  55                  60
Thr Arg Glu Glu Arg Phe Pro Asp Leu Arg Ala Glu Lys Glu Glu Phe
65                  70                  75                  80
Leu Lys Lys Lys Gln Lys Glu Glu Arg Arg Ala Arg Asp Glu Gln Arg
                85                  90                  95
Ala Arg Glu Lys Gln Glu Lys Arg Glu Arg Glu Gln Leu Lys Trp Gln
            100                 105                 110
Lys Glu His Ala Tyr Asp Asp Leu Phe Thr Glu Glu Asn Met Gln Ala
        115                 120                 125
Thr Ser Asn Gln Asp Arg Asp Ser Asp Phe Leu Asp Asp Phe Met
```

130 135 140

<210> 37993
<211> 78
<212> PRT
<213> A.fumigatus

<400> 37993
Arg Leu Thr Thr Glu Gln Arg Glu Gln Ala Gly Leu Ala Arg Pro Gly
1 5 10 15
Thr Ser Ser Asn Ala Gly Lys Phe Lys Met Pro Ser Ile Ser Met His
20 25 30
Arg Thr Pro Ser Thr Pro Thr Leu Ala Thr Asp Phe Leu Asp His Gly
35 40 45
Asn Pro Asn Lys Glu Ser Leu Ala Glu Leu Trp Ser Asn Phe Leu Glu
50 55 60
Gln Glu Ser Gln Ala Ser Gly Asn Pro Glu Ser Pro Lys Pro
65 70 75

<210> 37994
<211> 89
<212> PRT
<213> A.fumigatus

<400> 37994
Ala Asn Arg Gln Gln Gly Val Leu Arg Gly Leu Leu Asp Ser Asp Asn
1 5 10 15
Lys Ala Thr Ile Asn Glu Ser Met Ser Glu Ser Asp Cys Lys Pro Phe
20 25 30
Gln Pro Ala Leu Val Pro Arg Ala Phe Arg Ile Glu Met Arg Trp Asn
35 40 45
Ala Glu Ala Glu Gly Ser Leu Gly Asp Ser Val Leu Ser Ala Val Ala
50 55 60
Gly Ala Lys Asp Ile Leu Val Ala Phe Ser Ser Val Thr Pro Val Phe
65 70 75 80
Ile Tyr Ile Ser Lys Ala Lys Val Ser
85

<210> 37995
<211> 104
<212> PRT
<213> A.fumigatus

<400> 37995
Arg Met Arg Trp Val Asp Ser Ile Gln Val Arg Tyr Lys Thr Thr Ser
1 5 10 15
Ser Ser Thr Val Arg Arg Glu Gly Ser Met Ser Met Ser Asp Phe Val
20 25 30
Ser Gly Thr Gly Asn Asp Ser Phe Asn Gly Phe Leu Phe His Ser Pro
35 40 45
Arg Phe Thr Leu Ser Arg Ser Lys Arg Ser Cys Val Arg Phe Gly Leu
50 55 60
Asp Ser Arg Thr Ser Ser Ala Asn Asp Leu Met Ser Gly Asn Cys Gln
65 70 75 80
Ser Ile Thr Glu Gln Glu Ser Gln Arg His Met Ala Gly Thr Tyr Leu
85 90 95

Arg Asp Gln Val Gly Lys Tyr Ala
100

<210> 37996
<211> 127
<212> PRT
<213> A.fumigatus

<400> 37996
Ser Ile Leu Gly Ser Arg Arg Phe Gln Tyr Asn Asn Asp Asp Tyr Val
1 5 10 15
Leu Ser Ile Met Thr Glu Phe Gln Gln Lys Met Gly Pro Pro Asp Pro
20 25 30
Glu Gln Pro Gln Pro Pro Glu Gln Arg Val Arg Lys Arg Arg Arg Arg
35 40 45
Thr Met Ala Cys Thr Gln Cys Arg Ser Arg Lys Leu Arg Cys Asp Arg
50 55 60
Glu Tyr Pro Thr Cys Gly Arg Cys Val Gln Ser Lys Thr Pro Thr Lys
65 70 75 80
Cys Thr Tyr Glu Asp Gly Phe Leu Trp Gln Gln Pro Asn Thr Val Ala
85 90 95
Ser Pro Val Phe Ser Asp Arg Gly Ser Thr Ser Thr Gly Ser Asp Ala
100 105 110
Pro Ser Arg Ser Gly Ala Arg Thr Leu Leu Pro Gly Thr Arg Gly
115 120 125

<210> 37997
<211> 437
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (243)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 37997
Leu Ser Cys Ser Val Met Leu Trp Gln Phe Pro Asp Ile Arg Ser Phe
1 5 10 15
Ala Glu Glu Val Arg Leu Ser Ser Pro Asn Leu Thr Gln Leu Arg Phe
20 25 30
Asp Leu Glu Arg Val Lys Arg Gly Leu Trp Lys Arg Lys Pro Leu Asn
35 40 45
Glu Ser Phe Pro Val Pro Asp Thr Lys Ser Leu Ile Asp Met Leu Pro
50 55 60
Ser Arg Arg Thr Val Asp Glu Leu Val Val Leu Tyr Leu Thr Cys Ile
65 70 75 80
Glu Ser Thr His Arg Ile Leu His Val Pro Ser Phe Leu Lys Glu Leu
85 90 95
Asp Glu Phe Trp Ala Gln Lys Asp Asn Pro Ala Leu Val Ser Thr Gly
100 105 110
Phe Val Val Gln Leu Leu Leu Val Leu Ala Cys Ala Trp Asn Leu Ala
115 120 125
Asp Phe Asp Thr Leu Gln Leu Lys Asn Glu Ala Ser Leu Lys Cys Tyr
130 135 140
Thr Pro Val Glu Trp Val Leu His Val Glu Lys Trp Leu Asp Asn Ala

```
145                 150                 155                 160
His Ile Lys Arg Pro Glu Ile Thr Ala Leu Arg Ile Gln Ile Leu Leu
                165                 170                 175
Ile Ile Ala Gln Asn Gly Phe Gly Met Lys Arg Ser His Ala Trp Leu
            180                 185                 190
Ala Thr Gly Thr Leu Val Lys Gln Ala Met Ile Ala Gly Tyr His Arg
        195                 200                 205
Asp Pro Ser Arg Tyr Thr Lys Ile Ser Val Phe Asn Lys Glu Met Arg
    210                 215                 220
Arg Arg Ile Trp Thr Thr Ile Val Glu Leu Asp Leu Gln Val Ala Leu
225                 230                 235                 240
Glu Arg Xaa Met Pro Pro Ser Val Gln Glu Ser Asp Tyr Asp Thr Ala
                245                 250                 255
Pro Ala Ser Asn Ile Asn Asp Asn Glu Ile Gln Glu Thr Ser Thr Glu
            260                 265                 270
Leu Pro Arg Glu Arg Pro Leu His Glu Ile Thr Asp Ser Ser Phe Gln
        275                 280                 285
Ala Val Leu Thr Gln Ser Leu Pro Leu Arg Leu Lys Ala Cys Ser Leu
    290                 295                 300
Met His Ser Pro Arg Ile Ser Cys Arg Tyr Glu Glu Ile Gln Arg Leu
305                 310                 315                 320
Asp Trp Glu Leu Gly Arg His Leu Gln Lys Ile Pro Ala Trp Pro Thr
                325                 330                 335
Ala Gln Asn Asp Asp Cys Gln Ser Lys Asn Lys Val Thr Leu Leu Lys
            340                 345                 350
Ser Leu Leu Glu Thr Lys Ile Ala His Ser Leu Leu Ser Val His Thr
        355                 360                 365
Pro Phe Ala Ile Glu Ala Pro Arg Glu Pro Leu Phe Ala Pro Ser Ala
    370                 375                 380
Arg Ser Arg Leu Glu Val Ala Thr Leu Ile Leu Ser Asn Gln Lys Arg
385                 390                 395                 400
Leu His Glu Thr Ser Lys Gln Leu Ser Leu Cys Asn Phe Gly Glu Trp
                405                 410                 415
Thr Val Gln Ala Phe Cys Thr Val Cys Gln Ile Leu His Ala Gly Ser
            420                 425                 430
Ser Thr His Ser Glu
        435
```

<210> 37998
<211> 119
<212> PRT
<213> A.fumigatus

<400> 37998

```
Ile Cys His Ile Phe Ile Thr Thr Gln Arg Arg Glu Ser Asp Asp Ala
1               5                   10                  15
Met Phe Arg Ile Gln Leu Leu Leu Gln Ala Cys Val Leu Phe His Gln
            20                  25                  30
Ala Val Val Gly Ser Pro Ser Leu Ser Pro Lys Glu Lys Ser Ala Leu
        35                  40                  45
Phe Ser Asn Thr Asp Lys Tyr Pro Leu Pro Asn Gln Gly Asn Val Ile
    50                  55                  60
Thr His Asp Pro Asn Ile Ile Glu Tyr Asn Asp Thr Phe Tyr Leu Phe
65                  70                  75                  80
Met Gly Gly Val His Ile Pro Ile Ser Lys Ala Ser Ser Leu Asp Gly
                85                  90                  95
```

```
Pro Trp Thr Arg Val Gly Thr Asp Leu Asp Gly Pro Ser Ile Ile Glu
            100                 105                 110
Lys Gln Asn Arg Thr Arg Pro
        115

<210> 37999
<211> 131
<212> PRT
<213> A.fumigatus

<400> 37999
Ser Asp Arg Arg Pro Tyr Arg Gln Arg Lys Asn Arg Leu Ser Ser Pro
1               5                   10                  15
Thr Arg Ile Ser Thr Arg Ser Pro Ile Arg Ala Met Ser Leu Pro Thr
            20                  25                  30
Thr Pro Thr Ser Ser Ser Thr Thr Thr Pro Phe Thr Ser Ser Trp Glu
        35                  40                  45
Ala Ser Thr Ser Pro Ser Ala Arg Pro Gln Val Ser Thr Gly Pro Gly
    50                  55                  60
Gln Glu Ser Glu Gln Thr Ser Met Asp Pro Ala Ser Ser Arg Asn Arg
65                  70                  75                  80
Thr Gly Leu Asp Pro Glu Arg Arg Arg Trp Ser Ser Thr Thr Ala His
                85                  90                  95
Ser Thr Ala Thr Thr Arg Ser Ala Pro Ala Ala Ala Ala Thr Ala Pro
            100                 105                 110
Ser Ala Ser Gln Arg Pro Ile Pro Ser Thr Ala Gly Asn Gly Pro Ile
        115                 120                 125
Thr Glu Arg
    130

<210> 38000
<211> 195
<212> PRT
<213> A.fumigatus

<400> 38000
Gln Ser Gln Arg Met Met Ile Ser Ala Ser Asn Leu Arg Ser Pro Glu
1               5                   10                  15
Asp Leu Glu Thr Glu Lys Asp Asn Lys Gly Asn Thr Val Leu Ile Leu
            20                  25                  30
Pro Ser Phe Thr Phe Val Asp Cys Val Lys Pro Glu Asp Val Arg Glu
        35                  40                  45
Leu Val Asp Arg Tyr Ile Asp Thr Pro Gln Asp Ala Gly Thr Ser Gln
    50                  55                  60
Ser Asp Ser Gly Leu Ile Ser Arg Pro Cys Glu Tyr Asp Tyr Val Val
65                  70                  75                  80
Leu Leu Cys Ser His Lys Arg Arg Asp Ala Arg Cys Gly Ile Thr Ala
                85                  90                  95
Pro Leu Ile Lys Lys Glu Leu Glu Arg His Leu Arg Pro Leu Asp Leu
            100                 105                 110
Tyr Arg Asp Ala Tyr Asp Glu Arg Pro Gly Gly Val Gly Ile Phe Phe
        115                 120                 125
Val Ser His Val Gly Gly His Lys Phe Ala Ala Asn Val Met Ile Tyr
    130                 135                 140
Arg Lys Lys Glu Gln Gln Met Ile Trp Leu Ala Arg Val Arg Pro Glu
145                 150                 155                 160
```

```
His Cys Glu Gly Ile Val Lys Tyr Thr Leu Leu Gln Gly Lys Val Val
                165                 170                 175
His Pro Glu Ser Gln Leu Arg Gly Gly Phe Asp Arg Leu Arg Gly Leu
            180                 185                 190
Thr Ser Trp
        195

<210> 38001
<211> 139
<212> PRT
<213> A.fumigatus

<400> 38001
Pro Val Gly Gln Asp Asp Cys Ala Pro Ala Ser Val Cys Thr Pro Gln
1               5                   10                  15
Ser Ala Tyr His Phe Lys Leu Pro Cys Pro Cys Pro Cys Pro Cys Pro
            20                  25                  30
Cys Pro Cys Ser Cys Leu Val Thr Val Met Arg Ser Arg Arg Gly Met
        35                  40                  45
Pro Gln Ser Asp Leu His His Asn Thr Gly Thr Gly Arg Ser Val Arg
    50                  55                  60
Gly Arg Leu Leu Arg Lys Thr Leu Ser Phe His Cys Cys Ile Ala Ser
65                  70                  75                  80
Ile Phe Gln Ser Pro Leu Phe Leu Gln Val His Asp Pro Ser Pro Arg
                85                  90                  95
Pro Tyr Pro Tyr Thr Ala Ser Gly Tyr Arg Cys Lys Pro Lys His Ile
            100                 105                 110
Ile Ser Asp Arg Ile Gln Thr Pro Thr Pro Glu Gln Val Asn Glu Lys
        115                 120                 125
Lys Asn Met Asp Phe Pro Pro Gly His Pro Gly
    130                 135

<210> 38002
<211> 206
<212> PRT
<213> A.fumigatus

<400> 38002
Ala Thr Ser Ser Phe Gly Tyr Val Glu Tyr Val Asn Ala Ala Asp Ala
1               5                   10                  15
Ala Lys Ala Tyr Asn Ala Lys Lys Asp Thr Glu Ile Asp Gly Arg Lys
            20                  25                  30
Ile Asn Leu Asp Tyr Ala Thr Gly Arg Pro Ala Asn Asn Asn Asn Asn
        35                  40                  45
Gln Asp Arg Ala Gln Ala Arg Ala Arg Asn Phe Gly Asp Gln Thr Ser
    50                  55                  60
Pro Glu Ser Asp Thr Leu Phe Val Gly Asn Ile Pro Phe Ser Ala Asn
65                  70                  75                  80
Glu Asp Ser Val Ser Glu Leu Phe Gly Gln Ser Gly Thr Ile Val Gly
                85                  90                  95
Ile Arg Leu Pro Thr Asp Pro Glu Ser Gly Arg Pro Lys Gly Phe Gly
            100                 105                 110
Tyr Val Gln Phe Ser Ser Val Asp Glu Ala Arg Gln Ala Phe Asn Asp
        115                 120                 125
Leu Asn Gly Ala Glu Leu Asn Gly Arg Pro Val Arg Leu Asp Phe Ser
    130                 135                 140
```

```
Thr Pro Arg Pro Ser Asn Gly Asp Ala Pro Arg Gly Gly Arg Gly Gly
145                 150                 155                 160
Phe Gly Gly Arg Gly Gly Arg Gly Gly Pro Arg Gly Gly Gly Arg Gly
                165                 170                 175
Gly Arg Gly Gly Phe Gly Gly Arg Gly Gly Gly Ala Pro Asn Lys Ala
            180                 185                 190
Arg Gly Gly Ile Pro Glu Phe Lys Gly Thr Lys Val Thr Phe
        195                 200                 205
```

<210> 38003
<211> 153
<212> PRT
<213> A.fumigatus

<400> 38003

```
Thr Leu Arg Ala Gly Pro Ser Gly Pro Val Val Lys Thr Cys Leu Ile
1               5                   10                  15
His Leu Ala Lys Leu His Pro Val Ser Val Met Ser Ser Thr Ser Thr
            20                  25                  30
Arg Pro Thr Leu Pro Arg Leu Thr Thr Pro Arg Arg Thr Pro Arg Leu
        35                  40                  45
Met Val Ala Arg Ser Thr Ser Thr Thr Leu Leu Ala Ala Gln Pro Thr
    50                  55                  60
Thr Thr Thr Thr Arg Thr Ala Pro Arg Pro Ala Leu Gly Thr Ser Val
65                  70                  75                  80
Thr Lys Pro Ala Leu Arg Ala Thr Pro Cys Leu Ser Ala Thr Ser Pro
                85                  90                  95
Ser Val Pro Thr Arg Thr Arg Ser Arg Ser Ser Ser Val Asn Pro Val
            100                 105                 110
Pro Ser Leu Glu Ser Val Cys Pro Arg Thr Pro Ser Arg Gly Ala Pro
        115                 120                 125
Arg Ala Ser Val Thr Cys Ser Ser Pro Gln Leu Met Arg Leu Ala Arg
    130                 135                 140
Pro Ser Thr Thr Ser Thr Ala Leu Ser
145                 150
```

<210> 38004
<211> 142
<212> PRT
<213> A.fumigatus

<400> 38004

```
Ser Pro Ile Met Ala Thr Glu Lys Gly Asp Gln Asn Pro Glu Lys Ile
1               5                   10                  15
Glu Gln Ser Leu Pro Gln Lys Ile Pro Tyr Trp Arg Leu Val Val Asp
            20                  25                  30
Gln Gly Val Leu Thr Gln Gln Ile Ile Asp Tyr Pro Tyr Lys Gly Ser
        35                  40                  45
Gly Thr Glu Glu Asp Pro Tyr Glu Val Val Trp Met Glu Asn Asp Pro
    50                  55                  60
Arg Asn Pro Met Thr Trp Thr Gln Leu Arg Lys Trp Ser Leu Thr Met
65                  70                  75                  80
Thr Val Ala Val Ser Thr Leu Ala Val Ala Leu Val Ser Ser Ala Tyr
                85                  90                  95
Thr Gly Gly Val Arg Glu Ile Glu Ala Glu Phe His Ile Gly Ser Glu
            100                 105                 110
```

```
Val Ala Thr Leu Gly Val Ser Leu Phe Val Leu Gly Phe Ala Ile Gly
        115                 120                 125
Glu Phe Phe Pro Gly Phe Val Arg Ser Leu Pro Val Arg Gly
    130                 135                 140

<210> 38005
<211> 265
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (230)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38005
Cys Ala Ser Gly Pro Val Leu Gly Pro Ile Ile Gly Gly Phe Leu Gly
1               5                   10                  15
Met Asn Ala Gly Trp Arg Trp Val Met Gly Phe Leu Gly Ala Phe Ser
            20                  25                  30
Gly Ala Val Trp Ile Ile Cys Thr Ile Phe Val Pro Glu Thr Tyr Ala
        35                  40                  45
Pro Val Leu Leu Arg Arg Arg Ala Glu Lys Leu Ser Lys His Thr Gly
    50                  55                  60
Lys Val Tyr Val Ser Lys Ile Asp Ile Asp Gln Gly Arg Val Thr Leu
65                  70                  75                  80
Lys Asp Ala Phe Lys Thr Ala Leu Ser Arg Pro Trp Ile Leu Leu Phe
                85                  90                  95
Lys Glu Pro Ile Val Phe Leu Leu Ser Leu Tyr Met Ala Ile Ile Tyr
            100                 105                 110
Gly Thr Leu Tyr Met Leu Phe Ser Ala Tyr Pro Ile Val Phe Gln Gly
        115                 120                 125
Val Arg His Trp Asn Gln Gly Val Ser Ser Leu Pro Phe Leu Gly Ile
    130                 135                 140
Met Val Gly Met Met Phe Ala Val Thr Tyr Ser Val Trp Asp Asn Lys
145                 150                 155                 160
Val Tyr Phe Gln Val Gln Ala Lys His Gly Gly Phe Ala Pro Pro Arg
                165                 170                 175
Gly Arg His Ala Ala His Pro Asp Gly Phe Gly Cys His Pro Tyr Trp
            180                 185                 190
Ile Phe Leu Val Arg Leu Asp Gln Leu Pro Val Asp Pro Leu Asp Cys
        195                 200                 205
Leu His Pro Ser Arg Cys Ser Val Arg Phe Arg Tyr Gly Ser Gly Phe
    210                 215                 220
Pro Gly His His Glu Xaa Ser His Arg Cys Leu His His Phe Arg Arg
225                 230                 235                 240
Val Ser Pro Arg Ser Gln Phe Arg Pro Pro Phe Asp Phe Arg Arg Arg
                245                 250                 255
Phe Pro Ile Val His His Leu Tyr Val
            260                 265

<210> 38006
<211> 170
<212> PRT
<213> A.fumigatus
```

<400> 38006
Gly Phe Arg Gly Val Phe Phe Phe Phe Phe Gly Asp Phe Phe Phe Phe
1 5 10 15
Lys Lys Arg Lys Lys Lys Lys Lys Lys Ser Ile Leu Ala Gly Arg Arg
20 25 30
Leu Ile Leu Gln Thr Gly Ile His Trp Ala Ser Ser Ile Pro Ala Phe
35 40 45
Leu Ala Leu Ala Cys Val Pro Phe Pro Phe Leu Phe Tyr Lys Tyr Gly
50 55 60
Ala Thr Ile Arg Lys Arg Cys Glu Tyr Ala Ala Lys Ser Asp Ala Phe
65 70 75 80
Met Arg Lys Leu Ala Glu Gln Met Lys Gln Ala Pro Glu Pro Glu Ser
85 90 95
Glu Glu Thr Glu Glu Pro Val Phe Asp Arg Thr Glu Ala Pro Ala Pro
100 105 110
Asp Val Ser Asp Val Ser Glu Thr Glu Ser Asn Val Glu Glu Leu Pro
115 120 125
Asp Val Arg Gln Met Arg Ser Arg Ala Ser Thr Arg Thr Ala Ser Ser
130 135 140
Leu Arg Arg Val Val Ser Tyr Glu Gly Asn Pro Tyr Asp Ile Asp Arg
145 150 155 160
Val Asn Thr Arg Glu Ser Phe Thr Lys Lys
165 170

<210> 38007
<211> 100
<212> PRT
<213> A.fumigatus

<400> 38007
Phe Ile Ile Asn Met Ser Ile Tyr Ser Phe Gly Ile Asn His Tyr Val
1 5 10 15
Thr Gln Val Lys Ser Leu Arg His Ser Gly Val Gly His Leu Phe Glu
20 25 30
Leu Tyr Asn Ser Asn Val Cys Leu Val Lys Ser His Leu Tyr Phe Ser
35 40 45
Arg Arg Lys Asp Ser Ile Asp Glu Thr Ala Leu His Asp Val Thr Ser
50 55 60
Gly Thr Arg Asp Ile Leu Val Val Ala Ser Leu Phe Lys Leu Thr Gln
65 70 75 80
Ser Gln Gly Ser Gln Ile Phe Ser Thr Ser Tyr Asp Ser Gly Glu Thr
85 90 95
Glu Val Glu Asn
100

<210> 38008
<211> 205
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (81)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38008

```
Cys Leu Leu Ser Pro Thr Val Phe Gly Thr Thr Arg Phe Ile Ser Lys
1               5                  10                  15
Phe Lys Pro Ser Thr Gly Asp Leu Leu Pro Pro Glu Glu Gly Met Pro
            20                  25                  30
Pro Thr Leu Met Val Ser Val Ala Ile Pro Ile Gly Phe Phe Trp Phe
        35                  40                  45
Ala Trp Thr Asn Tyr Pro Ser Ile His Trp Ile Val Cys Ile Leu Ala
    50                  55                  60
Gly Ala Pro Phe Gly Phe Gly Met Val Leu Val Phe Leu Gly Ile Met
65                  70                  75                  80
Xaa Tyr Leu Ile Asp Ala Tyr Thr Ile Phe Ala Ala Ser Val Leu Ala
                85                  90                  95
Ala Asn Ser Val Leu Arg Ser Ile Phe Gly Ala Val Phe Pro Leu Phe
            100                 105                 110
Thr Thr Tyr Met Tyr Glu Asp Leu Gly Glu Ser Phe Ser Phe Phe Leu
        115                 120                 125
Val Ile Phe Phe Phe Leu Lys Lys Glu Lys Lys Lys Lys Lys Asn Leu
    130                 135                 140
Ser Leu Leu Ala Gly Gly Ser Phe Cys Lys Gln Glu Ser Ile Gly Arg
145                 150                 155                 160
Pro Gln Ser Arg Arg Phe Trp Arg Trp Pro Val Phe Arg Phe Pro Ser
                165                 170                 175
Cys Ser Thr Ser Thr Ala Leu Pro Phe Val Ser Ala Ala Ser Met Pro
            180                 185                 190
Pro Asn Pro Met Arg Ser Cys Gly Ser Leu Pro Ser Arg
        195                 200                 205
```

<210> 38009
<211> 144
<212> PRT
<213> A.fumigatus

<400> 38009

```
Ile Gly Pro Leu Leu Trp Ala Pro Leu Ser Glu Met Phe Gly Arg Gln
1               5                  10                  15
Ile Ile Phe Thr Val Thr Tyr Cys Ala Leu Thr Ala Phe Asn Ala Gly
            20                  25                  30
Ser Ala Gly Ala Gln Asn Ser Trp Thr Leu Ile Ile Leu Arg Phe Phe
        35                  40                  45
Ala Gly Ala Phe Gly Ala Ser Pro Leu Thr Asn Ala Gly Gly Val Ile
    50                  55                  60
Ala Asp Met Phe His Ala Lys Gln Arg Gly Ile Ala Met Ser Leu Phe
65                  70                  75                  80
Ala Ala Ala Pro Phe Leu Gly Met Ser Ser Ser Ser Ser Tyr Cys Ile
                85                  90                  95
Asp Arg Met Leu Met Arg Leu Arg Ser Cys Phe Gly Ser Asn His Trp
            100                 105                 110
Trp Phe Pro Arg Asn Glu Arg Arg Met Ala Met Gly His Gly Leu Leu
        115                 120                 125
Gly Arg Leu Leu Arg Cys Ser Leu Asp Tyr Leu His Tyr Phe Arg Ser
    130                 135                 140
```

<210> 38010
<211> 70
<212> PRT
<213> A.fumigatus

<400> 38010
His Phe Cys Gly Asp His Val Leu Glu Ala Tyr Val Asp Leu Val Ser
1 5 10 15
Leu Phe Gly Val Ile Ser Ser Leu Ile Tyr Ser Thr Glu Trp Tyr Leu
20 25 30
Phe Ser Val Val Glu Gln Tyr Arg Gly Ile Asp Leu Val Lys Pro Ser
35 40 45
Pro Thr Leu Asn Ala Trp Gly Ser Val Ile Leu Met Tyr Val Pro Pro
50 55 60
Thr Phe His Ser Leu Asp
65 70

<210> 38011
<211> 980
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (1),(2),(3),(5),(702),(715)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38011
Xaa Xaa Xaa Asp Xaa Pro Leu Arg Ala Ala Gly Ser Phe Gln Pro Arg
1 5 10 15
Gly Glu Asp Pro Arg Trp Thr Gly Lys Gln Met Ile Ser Met Ala Leu
20 25 30
Pro Ser Gly Leu Asn Leu Leu Arg Val Glu Lys Asp Asn Ser Ser Leu
35 40 45
Ala Glu Lys Phe Ser Pro Leu Thr Asp Gly Gly Leu Leu Ile His Gly
50 55 60
Gly Gln Leu Met Tyr Gly Met Phe Ser Lys Lys Thr Val Gly Ala Ser
65 70 75 80
Gly Gly Gly Val Ile His Thr Ile Phe Asn Glu Tyr Gly Pro Asp Thr
85 90 95
Ala Val Ala Phe Phe Asn Gly Ala Gln Thr Ile Val Asn Tyr Trp Leu
100 105 110
Leu His Asn Gly Phe Ser Ile Gly Ile Gly Asp Thr Ile Pro Asp Ala
115 120 125
Ile Thr Ile Gln Arg Ile Glu Asn Cys Val Arg Glu Arg Lys Lys Glu
130 135 140
Val Glu Ala Ile Thr Ala Ser Ala Thr Glu Asn Thr Leu Glu Pro Leu
145 150 155 160
Pro Gly Met Asn Val Arg Glu Thr Phe Glu Ser Lys Val Ser Arg Ala
165 170 175
Leu Asn Asn Ala Arg Asp Glu Ala Gly Ser Glu Thr Glu Lys Ser Leu
180 185 190
Lys Asp Leu Asn Asn Ala Ile Gln Met Ala Arg Ser Gly Ser Lys Gly
195 200 205
Ser Thr Ile Asn Ile Ser Gln Met Thr Ala Val Val Gly Gln Gln Ser
210 215 220
Val Glu Gly Lys Arg Ile Pro Phe Gly Phe Lys Tyr Arg Thr Leu Pro
225 230 235 240
His Phe Thr Lys Asp Asp Tyr Ser Pro Glu Ser Arg Gly Phe Val Glu
245 250 255

```
Asn Ser Tyr Leu Arg Gly Leu Thr Pro Thr Glu Phe Phe Phe His Ala
            260                 265                 270
Met Ala Gly Arg Glu Gly Leu Ile Asp Thr Ala Val Lys Thr Ala Glu
        275                 280                 285
Thr Gly Tyr Ile Gln Arg Lys Leu Val Lys Ala Leu Glu Glu Val Met
    290                 295                 300
Val Lys Tyr Asp Gly Thr Phe Gln Lys Leu Ser Trp Val Met Gly Ile
305                 310                 315                 320
Lys Phe Ile Tyr Gly Glu Asp Gly Leu Asp Gly Ala His Ile Glu Asn
                325                 330                 335
Gln Arg Val Asp Val Ile Arg Cys Ser Asp Asp Lys Phe Arg Glu Arg
            340                 345                 350
Phe Arg Val Asp Leu Met Asp Pro Glu Arg Ser Leu Gly Pro Glu Val
        355                 360                 365
Leu Glu Gln Ala Asn Glu Ile Ala Gly Asp Val Glu Val Gln Arg Tyr
    370                 375                 380
Leu Asp Glu Glu Trp Glu Gln Leu Leu Lys Asp Arg Ala Phe Leu Arg
385                 390                 395                 400
Thr Val Ala Lys Glu Asp Asp Glu Met Met Gln Leu Pro Ile Asn Val
                405                 410                 415
Gln Arg Ile Leu Glu Thr Ala Arg Ser Thr Phe Arg Ile Arg Glu Gly
            420                 425                 430
Ala Ile Ser Asp Leu His Pro Ala Glu Val Ile Pro Gln Val Arg Ser
        435                 440                 445
Leu Leu Asp Arg Leu Leu Val Val Arg Gly Asp Asp Pro Ile Ser Arg
    450                 455                 460
Glu Ala Gln Glu Asn Ala Thr Met Leu Phe Lys Ala Gln Leu Arg Ser
465                 470                 475                 480
Arg Leu Ala Phe Arg Arg Leu Val Thr Glu Tyr Ser Met Asn Lys Leu
                485                 490                 495
Ala Phe Gln His Val Leu Gly Ala Ile Glu Ser Arg Phe Ala Lys Ala
            500                 505                 510
Ala Ala Asn Pro Gly Glu Met Val Gly Val Leu Ala Ala Gln Ser Ile
        515                 520                 525
Gly Glu Pro Ala Thr Gln Met Thr Leu Asn Thr Phe His Phe Ala Gly
    530                 535                 540
Val Ser Ser Lys Asn Val Thr Leu Gly Val Pro Arg Leu Lys Glu Ile
545                 550                 555                 560
Leu Asn Val Ala Thr Asn Ile Lys Thr Pro Ser Met Thr Val Tyr Gln
                565                 570                 575
Leu Pro His Arg Cys His Asp Lys Glu Ser Ala Lys Gln Leu Arg Ser
            580                 585                 590
Val Val Glu His Thr Ser Leu Arg Ser Val Thr Glu Ala Thr Glu Ile
        595                 600                 605
Tyr Tyr Asp Pro Asp Ile Gln Thr Thr Val Ile Glu Asn Asp Arg Asp
    610                 615                 620
Met Val Glu Ser Tyr Phe Ile Ile Pro Glu Asp Val Thr Asp Ala Thr
625                 630                 635                 640
Ser Arg Gln Ser Lys Trp Leu Leu Arg Ile Ile Leu Ser Arg Pro Lys
                645                 650                 655
Leu Leu Asp Lys Gly Leu Thr Val Gln Asp Val Ala Ala Lys Ile Lys
            660                 665                 670
Gln Ala Tyr Pro Lys Asp Ile Ala Val Ile Phe Ser Asp Asn Asn Ala
        675                 680                 685
Asp Glu Gln Val Ile Arg Ile Arg Gln Ile Gln Asp Tyr Xaa Glu Asp
    690                 695                 700
```

```
Glu Asp Asp Glu Arg Leu Glu Phe Asp Val Xaa Leu Lys Lys Leu Glu
705                 710                 715                 720
Gln His Leu Leu Asp Thr Leu Thr Leu Arg Gly Val Gln Gly Val Glu
                725                 730                 735
Arg Ala Phe Ile Asn Glu Lys Ser Lys Val Arg Val Leu Glu Asp Gly
            740                 745                 750
Ser Leu Phe Ala Ser Lys Thr Asp Pro Leu Cys Lys Glu Trp Val Leu
        755                 760                 765
Glu Thr Ser Gly Ser Ser Leu Gly Glu Val Leu Ala Val Pro Gly Val
    770                 775                 780
Asp Ala Thr Arg Thr Tyr Ser Asn Gln Phe Ile Glu Val Phe Glu Val
785                 790                 795                 800
Phe Gly Ile Glu Ala Ala Arg Thr Ala Val Leu Arg Glu Leu Thr Gln
                805                 810                 815
Val Leu Ala Phe Asp Gly Ser Tyr Val Asn His Arg His Leu Ala Leu
            820                 825                 830
Leu Val Asp Val Met Thr Val Arg Gly Tyr Leu Thr Pro Val Thr Arg
        835                 840                 845
His Gly Ile Asn Arg Ala Asp Asn Gly Ala Leu Met Arg Cys Ser Phe
    850                 855                 860
Glu Glu Thr Val Glu Ile Leu Leu Glu Ala Ala Ala Phe Gly Glu Leu
865                 870                 875                 880
Asp Asp Cys Arg Gly Val Ser Glu Asn Leu Ile Leu Gly Gln Met Ala
                885                 890                 895
Pro Ala Gly Thr Gly Glu Phe Asp Leu Tyr Leu Asp Gln Asn Leu Leu
            900                 905                 910
Asn Thr Val Val Ser Asn Asn Ala Arg Phe Gly Val Met Gly Asn Ile
        915                 920                 925
Gly Ala Asn Asp Ala Ile Ile Ser Asp Cys Ala Ala Thr Gln Tyr Asp
    930                 935                 940
Thr Gly Ser Pro Met Gln Glu Ser Ala Phe Ile Gly Thr Pro Asp Pro
945                 950                 955                 960
Glu Ser Ala Phe Ser Pro Ile Leu Gln Ala Ser Ala Glu Ser Pro Gly
                965                 970                 975
Gly Phe Thr Glu
            980
```

<210> 38012
<211> 190
<212> PRT
<213> A.fumigatus

<400> 38012

```
Gln Thr Ile Glu Gln Arg Ala Asp Leu Arg Asp Asn Leu Ser Arg Met
1               5                   10                  15
Gln Val Thr Asn Gly Pro Phe Thr Tyr Pro Glu Cys Ala Pro Ser Ser
            20                  25                  30
Phe Lys Asp Ser Leu His Val Asp Gly Lys Leu His His Leu Ile Val
        35                  40                  45
Phe Phe Arg Asp Ser Ala Lys Glu Cys Pro Val Phe Glu Gln Leu Leu
    50                  55                  60
Pro Phe Phe Val Glu Ile Ser Leu Asp Phe Asn Ile Ala Ser Asn Phe
65                  70                  75                  80
Ile Gly Leu Phe Gln Asp Phe Arg Ser Gln Ala Pro Leu Gly Ile His
                85                  90                  95
Glu Ile His Thr Glu Ser Leu Ser Glu Leu Val Ile Arg Ala Ser Asp
```

```
            100                 105                 110
Asn Val Asp Pro Leu Val Phe Asp Val Ser Thr Ile Lys Thr Val Phe
        115                 120                 125
Ser Val Asp Glu Phe Asp Ser His His Pro Arg Glu Phe Leu Glu Gly
    130                 135                 140
Thr Val Ile Leu Asn His Asp Leu Phe Gln Gly Leu Asn Gln Leu Pro
145                 150                 155                 160
Leu Asn Ile Thr Ser Phe Gly Ser Leu Asp Gly Ser Ile Asp Gln Thr
                165                 170                 175
Phe Ser Thr Gly His Gly Met Lys Glu Glu Phe Ser Trp Gly
            180                 185                 190
```

<210> 38013
<211> 240
<212> PRT
<213> A.fumigatus

<400> 38013

```
Cys Phe Leu Ile Cys Met Leu Leu Phe Tyr Ser Ser Asn Lys Phe Trp
1               5                   10                  15
Glu Ser Tyr Ala Glu Arg Leu Pro Ser Ser Phe Gly Arg Gly Tyr Ser
            20                  25                  30
Asp Cys Pro Ser Asp Ala Pro Gln Asp Asp Arg Leu Phe Ala Thr Gln
        35                  40                  45
Ile Phe Leu Ala Leu Ser Ser Ser Pro Val Ser Trp Thr Gly Ala Gly
    50                  55                  60
Ser Gly Lys Phe Cys Leu Val Gly Tyr Ser Leu Gly Gly Gly Ile Ala
65                  70                  75                  80
Ala Ala Phe Ala Ser Tyr Phe Pro Asn Leu Leu Ser Gly Leu Val Leu
                85                  90                  95
Leu Ala Pro Ala Gly Leu Ile Arg Asp Ser Gln Ile Ser Leu Gln Ser
            100                 105                 110
Arg Leu Leu Tyr Ser Arg Gly Leu Val Pro Glu Arg Val Leu Gly Phe
        115                 120                 125
Leu Val Gly Arg Arg Leu Arg Ala Gly Pro Leu Thr Thr Pro Lys Pro
    130                 135                 140
Lys Asn Glu Lys Leu Asn Ala Ala Asp Ala Leu Thr Glu Glu Leu Pro
145                 150                 155                 160
Ser Gln Thr Val Gly Asn Met Gln Val Leu Ser Arg Ala Tyr Pro His
                165                 170                 175
Val Ser Val Pro Asn Ala Val Ser Trp Gln Val Asn Asn His Ala Gly
            180                 185                 190
Phe Val His Ala Phe Met Ser Ser Met Arg Phe Gly Pro Ile Leu Lys
        195                 200                 205
Gln Arg Gln Trp Asp Thr Trp Thr Arg Leu Gly Lys His Leu Ala Ala
    210                 215                 220
Gln Lys Gln Leu Ser Thr Glu Glu Gln Leu Thr Asn Gly Leu Pro Lys
225                 230                 235                 240
```

<210> 38014
<211> 65
<212> PRT
<213> A.fumigatus

<400> 38014

```
Gln Met Val Phe Pro Ser Asp Lys Val Leu Ile Met Cys Gly Ile His
```

```
1               5                   10                  15
Asp Ala Ile Ile Val Lys Asp Glu Ile Val Pro Asp Ala Thr Leu Ala
            20                  25                  30
Leu Gln Gly Asn Val Asp Phe Glu Phe Tyr Asn Ala Gly His Glu Phe
        35                  40                  45
Pro Ser Thr Leu Tyr Asp Lys Val Ala Gln Arg Ile Leu Glu Leu Leu
    50                  55                  60
Gln
65
```

<210> 38015
<211> 153
<212> PRT
<213> A.fumigatus

<400> 38015

```
Val Ser Pro Thr Leu Ala Asn Thr Gln Asn Cys Leu Leu Thr Phe Asn
1               5                   10                  15
Ser Arg Phe Phe Phe Ser Asp Gly Asp Tyr Ile Phe Val Pro Lys Leu
            20                  25                  30
Gln Glu Asp Asp Pro Tyr Asp Ala Ala Trp Ala Gly Leu Glu Gln Cys
        35                  40                  45
Leu Cys Asp Ala Pro Pro Asn Met Ile Ser Lys Tyr Ser Leu Lys Tyr
    50                  55                  60
Val Phe Glu Gln Val Val Gly Glu Gly Gln Leu Glu His Leu Ser Gln
65                  70                  75                  80
Phe Phe Arg His Thr Leu Ser Ile Pro Asp Ala Ser Trp Ser Asp Leu
                85                  90                  95
Thr Gly Glu Leu Val Glu Arg Ser Gln Asn His Cys Val Asp Phe Asp
            100                 105                 110
Gln Ile Phe His Met Tyr Lys Tyr Leu Ser Glu Met Glu Ile Phe Ser
        115                 120                 125
Ile Asp Asp Leu Arg Gln Val Ser Thr Phe Leu Phe Leu Ser Trp Asp
    130                 135                 140
Cys Ile Lys Glu Leu Asn Phe Tyr Phe
145                 150
```

<210> 38016
<211> 335
<212> PRT
<213> A.fumigatus

<400> 38016

```
Thr Ser Arg Leu Thr Trp Ile Phe Ala Ser Trp Ile Gln Gln Arg Leu
1               5                   10                  15
Pro Met Lys Thr Ala Glu Arg Phe Ser His Ile Trp Glu Pro Trp Ser
            20                  25                  30
Cys Arg Leu Val Gln Phe Asp Leu Gln Tyr Trp Arg Ile Ile Asp Pro
        35                  40                  45
Cys Ala Thr Gly Phe Ala Ser Lys Ile Arg Glu Phe His Leu Arg Tyr
    50                  55                  60
Leu Tyr Leu Thr His Asn Arg Arg Gln Ile Glu Glu Asp Phe Cys Asn
65                  70                  75                  80
Val Cys Val Tyr Cys Asp His Gly Thr Met Asn Asn Pro His Glu Glu
                85                  90                  95
Glu Ile Tyr Leu Pro His Ser His Pro Tyr Gly Pro Lys Ala Leu Leu
```

```
            100                 105                 110
Gly Pro Thr Glu Tyr Ser Gln Gly Met Glu Val Leu Leu Met His Ser
        115                 120                 125
Thr Tyr Phe Glu Ser Ile Pro Ser Arg Pro His Ser Asp Tyr Pro Ser
    130                 135                 140
Trp Arg Ala Trp Leu Thr Thr Ser Leu Gly Ile Arg Glu Arg Leu Ser
145                 150                 155                 160
Leu Val Ser Ser Asp Gly Asp Ser Leu Ser Asp Ser Trp Thr Tyr Ile
                165                 170                 175
Ala Glu Thr Arg Pro Gly Lys Leu Leu Gly Leu Leu Gln Tyr Leu Trp
            180                 185                 190
Lys Tyr Gln Ser Ser Glu Leu Arg Gln Asn Ala Asp Leu Ile Met Glu
        195                 200                 205
Ile Gln Ser Met Asn Ala Arg Lys Leu Cys Asn Arg Asp Leu Pro Asp
    210                 215                 220
Asp Cys Arg Leu Asp Glu Thr Tyr Leu Pro Leu Ser Asn Leu Arg Ala
225                 230                 235                 240
Leu Cys His Arg Phe Met Glu Glu Asp Glu Pro Phe Pro Phe Leu Tyr
                245                 250                 255
Leu Glu Glu Leu Leu Asp Glu Glu Leu Tyr Ser Lys Trp Ile Phe Leu
            260                 265                 270
His Asn Asp Phe Ser Val Gly Lys Asp Asp Asp Met Gly Phe Leu Leu
        275                 280                 285
Asn Val Leu Tyr Trp Ile Gln Ser Ala Asn Pro Asp Glu Ser Ala Leu
    290                 295                 300
Thr Ser Tyr Glu Arg Leu Trp Asp Leu Tyr Ile Thr Ile Gly Ala Lys
305                 310                 315                 320
His Leu Ala Ala Glu Asp Arg Val Val Ala Gly Asp Lys Ile Lys
                325                 330                 335

<210> 38017
<211> 95
<212> PRT
<213> A.fumigatus

<400> 38017
Cys Gln Ser Arg Ile Val Ser Arg Thr Ile Leu Pro Val Ser Thr Cys
1               5                   10                  15
Met Tyr Arg Glu Val Ala Ile Ala Gln Tyr Gly Arg Asn Leu Thr Leu
            20                  25                  30
Asn Leu Asp Ser Arg Thr Gly Lys Lys Ala Asn Ile Ser Cys Phe Ser
        35                  40                  45
Ser Lys Gly Leu Glu Ser Thr Val Arg Gly Asn Ala Lys Thr Thr Ser
    50                  55                  60
Ala Ser Glu Asn Ala Val Leu Val Ser Ser Val Leu Arg Arg Leu Arg
65                  70                  75                  80
Leu Ser Leu Val Gly Ser Ser Val Ala Val Arg Leu Val Thr Trp
                85                  90                  95

<210> 38018
<211> 105
<212> PRT
<213> A.fumigatus

<400> 38018
Arg His Arg Ser Leu Gln Ala Phe Arg Ser Gly Val Ala Asp Asn Met
```

```
1               5                   10                  15
Leu Val Leu Val Asp Ala Tyr Ala Asp Trp Cys Gly Pro Cys Lys Ala
            20                  25                  30
Ile Ala Pro Lys Leu Glu Leu Phe Ser Asn Gln Tyr Ala Asn Ile Lys
        35                  40                  45
Phe Phe Lys Val Asn Val Asp Lys Val Pro Asp Val Ala Gln Glu Leu
    50                  55                  60
Gly Val Ser Ser Met Pro Ser Phe Tyr Leu Phe Arg Ala Gly Asp Tyr
65                  70                  75                  80
Val Glu Lys Val Val Gly Ala Asn Pro Gly Leu Leu Glu Thr Tyr Ile
                85                  90                  95
Lys Lys His Ala Glu Ser Val Gln Gly
            100                 105
```

<210> 38019
<211> 276
<212> PRT
<213> A.fumigatus

<400> 38019

```
Asn Leu Arg Met Ser Lys Tyr Val Leu Phe Gly Arg Pro Trp Pro Arg
1               5                   10                  15
Arg Gly Pro Pro Trp Gln Arg Leu Ser Leu Pro Arg Arg Ser Pro Ala
            20                  25                  30
Leu Ile Lys Pro Leu Ser Thr Gly Thr Thr Pro Lys Pro Thr Ser Ser
        35                  40                  45
Arg Pro Asn Gly Arg Leu Gln Val Trp Pro Trp Leu Ala Gly Pro Ile
    50                  55                  60
Leu Gly Val Ser Leu Phe Leu Ser Ala His Arg Arg Pro Met Gln Leu
65                  70                  75                  80
Glu Thr Asp Thr Gly Leu Gln Arg Gly Asn Leu Thr Arg Asp Glu Ser
                85                  90                  95
Gln Asp Asp Ile Asp Leu Pro Lys Glu Asp Ala Ile Leu Thr Thr Ala
            100                 105                 110
Pro Asn Val Pro Pro Pro Ile Thr Arg Thr Arg Pro Val Leu Leu His
        115                 120                 125
Val Pro Leu Thr Thr Ala Thr Lys Thr Arg Gln Leu Thr Ser Gln Tyr
    130                 135                 140
Lys Tyr Asp Thr Trp Thr Phe Asn Asp Thr Val Pro Gly Pro Phe Ile
145                 150                 155                 160
Arg Ala Arg Val Gly Asp Val Val Glu Leu Thr Leu Thr Asn His Asp
                165                 170                 175
Leu Ser Gly Asn Pro His Asn Ile Asp Cys His Ala Phe Thr Gly Pro
            180                 185                 190
Gly Gly Gly Ala Ala Val Thr Thr Ala Glu Glu His Glu Thr Lys Thr
        195                 200                 205
Ala Arg Phe Lys Leu Leu Tyr Pro Gly Leu Phe Val Tyr His Cys Ala
    210                 215                 220
Ala Ala Pro Val Pro Val His Ile Ala Asn Gly Met Tyr Gly Leu Ile
225                 230                 235                 240
Tyr Val Gln Pro Glu Asp Gly Asp Ala Leu Ser Pro Val Asp Arg Glu
                245                 250                 255
Tyr Tyr Val Met Gln Ser Glu Phe Tyr Val Phe Thr Thr Gly Trp Lys
            260                 265                 270
Gly Arg Ser Asn
        275
```

<210> 38020
<211> 276
<212> PRT
<213> A.fumigatus

<400> 38020
Tyr Gln Met His Leu Met Thr Gln Ser Gly Leu Gln Ser Gln Val Ser
1 5 10 15
Met Gln Asp Tyr Ser Ile Pro Ala Arg Asp Gly Phe Pro Leu Glu Ala
20 25 30
Arg Ser Tyr Arg Pro Val Gly Val Pro Ser Pro Gln Arg Leu Pro Val
35 40 45
Tyr Leu His Leu His Gly Gly Gly Phe Leu Phe Gly Thr Leu Ala Ser
50 55 60
Glu Asp Ala Ile Cys Ser Arg Ile Val Ala Thr Leu Ala Thr Glu Asn
65 70 75 80
Thr Pro Val Val Val Val Asn Val Asn Tyr Arg His Thr Pro Glu Tyr
85 90 95
Lys Tyr Pro Val Pro Trp Asn Asp Ala Ala Asp Ala Leu His Trp Val
100 105 110
His Asp His Leu Ala Glu Leu Gly Gly Asp Gly Asp Asn Val Val Val
115 120 125
Gly Gly Ile Ser Ala Gly Ala Trp Met Thr Ala Ser Leu Thr Leu Ala
130 135 140
Gln His Leu Gly Thr Asp Glu Gln Leu Ala Lys Arg Pro Lys Ile Arg
145 150 155 160
Gly Gln Val Leu Met Ile Pro Pro Leu Val Gly Pro Gly Cys Tyr Ala
165 170 175
Pro Gln Leu Lys Tyr Leu Lys Asp Pro Lys Leu Ser Ser Tyr Val Asp
180 185 190
Ser Glu His Ala Pro Ile Leu Pro Val Thr Arg Ile Asn Ser Phe Met
195 200 205
Asp Leu Leu Glu Ala Lys Gly His Glu Thr Asp Leu Val Leu Asn Pro
210 215 220
Gly Asn Ala Thr Ala Glu Gln Val Arg Gly Leu Pro Pro Thr Thr Phe
225 230 235 240
Gly Ile Ala Gly Arg Asp Pro Leu Arg Asp Glu Gly Leu Phe Tyr Ala
245 250 255
Lys Leu Leu Thr Asp Asn Gly Trp Val Arg Val Glu Gln Arg His Cys
260 265 270
Gly Gln Ala Tyr
275

<210> 38021
<211> 794
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (2),(5)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38021
Ala Xaa Glu Ala Xaa Asp Ala Lys Gly Ala Arg Gly Glu Leu Phe Tyr

```
1               5                   10                  15
Pro Glu Tyr Tyr Ser Met Ser Lys Ile Met Thr Gly Leu Arg Ala Gly
            20                  25                  30
Thr Leu His Gln Gly Val Phe Asn Val Ser Pro Tyr Asn Tyr Leu Glu
        35                  40                  45
Gly Ser Val Asn Val Ala Ala Phe Asp Lys Pro Leu Leu Ile Leu Gly
    50                  55                  60
Arg Asp Asn Ser Asn Arg Ala Ile Ala Gly Asp Val Val Val Ile Glu
65                  70                  75                  80
Val Leu Pro Lys Asp Gln Trp Lys Ser Pro Ser Thr Lys Leu Val Asp
                85                  90                  95
Glu Glu Ala Val Thr Arg Asn Asp Asn Pro Glu Ala Glu Asp Asn Glu
            100                 105                 110
Glu Val Val Thr Glu Lys Glu Arg Lys Ala Leu Gln Glu Glu Val Lys
        115                 120                 125
Lys Ala His Gly Lys His Ser Glu Gly Arg Pro Gln Pro Thr Ala Lys
    130                 135                 140
Val Val Gly Val Ile Lys Arg Asn Trp Arg Gln Tyr Val Gly His Val
145                 150                 155                 160
Asp Gln Ser Ser Thr Gly Ala Ser Ala Ser Ser Gly Arg Arg Gln Gln
                165                 170                 175
Asn Val Phe Val Leu Pro Met Asp Lys Arg Ile Pro Lys Ile Arg Val
            180                 185                 190
Arg Thr Arg Gln Ala Ser Asp Leu Leu Gly Gln Arg Ile Leu Val Thr
        195                 200                 205
Ile Asp Ala Trp Asp Arg Asp Ser Arg Tyr Pro Thr Gly His Phe Ile
    210                 215                 220
Arg Ser Leu Gly Glu Leu Glu Thr Lys Gly Ala Glu Thr Glu Ala Leu
225                 230                 235                 240
Leu Leu Glu Tyr Asp Val Gln Tyr Lys Pro Phe Pro Lys Ala Val Leu
                245                 250                 255
Asp Cys Leu Pro Pro Glu Gly His Asp Trp Lys Val Pro Ala Asp Lys
            260                 265                 270
Glu His Val Gly Trp Lys Gly Arg Arg Asp Leu Arg Asp Ile Leu Val
        275                 280                 285
Cys Ser Ile Asp Pro Pro Gly Cys Gln Asp Ile Asp Asp Ala Leu His
    290                 295                 300
Ala Arg Pro Leu Pro Asn Gly Asn Phe Glu Val Gly Val His Ile Ala
305                 310                 315                 320
Asp Val Ser His Phe Val Lys Pro Asn Asn Ala Met Asp Leu Glu Ala
                325                 330                 335
Ser Ala Arg Gly Thr Thr Val Tyr Leu Val Asp Lys Arg Ile Asp Met
            340                 345                 350
Leu Pro His Leu Leu Gly Thr Asp Leu Cys Ser Leu Lys Pro Tyr Val
        355                 360                 365
Glu Arg Tyr Ala Phe Ser Val Leu Trp Glu Met Thr Pro Asn Ala Glu
    370                 375                 380
Val Val Ser Ala Glu Phe Thr Lys Ser Val Ile Arg Ser Arg Glu Ala
385                 390                 395                 400
Phe Ser Tyr Glu Gln Ala Gln Lys Arg Ile Asp Asp Pro Ser Gln Asn
                405                 410                 415
Asp Glu Leu Thr Gln Ser Met Arg Thr Leu Leu Arg Leu Ser Lys Ile
            420                 425                 430
Leu Arg Gln Lys Arg Met Asp Ala Gly Ala Leu Asn Leu Ala Ser Pro
        435                 440                 445
Glu Val Arg Ile Glu Thr Asp Ser Asp Glu Val Gly Asp Pro Leu Thr
```

```
    450                 455                 460
Asp Val Lys Thr Lys Ala Met Leu Ala Thr Asn Ser Leu Val Glu Glu
465                 470                 475                 480
Phe Met Leu His Ala Asn Ile Thr Val Ala Ala Lys Ile Tyr Asp Ser
                485                 490                 495
Phe Ser Gln Thr Ala Leu Leu Arg Arg His Ala Thr Pro Pro Pro Gln
            500                 505                 510
Asn Phe Glu Glu Leu Ile Asn Gln Leu Ser Lys Lys Arg Asn Leu Glu
        515                 520                 525
Leu Asp Val Ser Ser Ser Arg Ala Leu Ala Asp Ser Leu Asp Arg Cys
    530                 535                 540
Val Asp Pro Glu Asn Pro Phe Phe Asn Thr Leu Val Arg Ile Leu Ala
545                 550                 555                 560
Thr Arg Cys Met Thr Ser Ala Glu Tyr Phe Cys Ala Gly Ala His Ala
                565                 570                 575
Glu Ser Glu Phe Arg His Tyr Gly Leu Ala Ser Pro Ile Tyr Thr His
            580                 585                 590
Phe Thr Ser Pro Ile Arg Arg Tyr Ala Asp Leu Leu Val His Arg Gln
        595                 600                 605
Leu Ala Ala Ala Ile Gly Tyr Glu Gly Glu Asp Gly Arg Ala Gln Val
    610                 615                 620
Glu Gly Val Met Thr Arg Asn Arg Leu Glu Asp Ile Cys Arg Asn Ile
625                 630                 635                 640
Asn Tyr Arg His Arg Asn Ala Gln Phe Ala Gly Arg Ala Ser Ile Glu
                645                 650                 655
Tyr Tyr Val Gly Gln Ala Leu Lys Ala Arg Gly Glu Lys Met Ala Ala
            660                 665                 670
Asp Gly Val Asp Ala Gly Ile Glu Glu Glu Gly Tyr Val Met Arg Val
        675                 680                 685
Phe Glu Asn Gly Val Val Val Phe Val Pro Arg Phe Gly Ile Glu Gly
    690                 695                 700
Val Val Arg Leu Glu Asp Phe Val Leu Pro Gly Glu Ser Ala Val Arg
705                 710                 715                 720
Ser Ala Glu Glu Arg Arg Glu Leu Leu Val Arg Arg Glu Ser Asp Phe
                725                 730                 735
Asp Gly Glu Glu Tyr Thr Leu Arg Val Ser Glu Lys Gly His Pro Glu
            740                 745                 750
Lys Glu Arg Gly Val Thr Val Glu Leu Phe Gln Arg Val Lys Val Asn
        755                 760                 765
Val Ser Ser Val Lys Glu Glu Gly Gly Arg Gly Ala Gly Lys Arg Arg
    770                 775                 780
Val Arg Ile Leu Ile Leu Gly Ala Gly Lys
785                 790
```

<210> 38022
<211> 158
<212> PRT
<213> A.fumigatus

```
<400> 38022
Thr Pro Val Thr Leu Cys Leu Cys Phe Thr Ser Asp Ile Val Val Trp
1               5                   10                  15
Arg Val Gln Asn Phe Tyr Phe Pro Ala Pro Arg Ile Asn Ile Arg Thr
            20                  25                  30
Arg Leu Phe Pro Ala Pro Arg Pro Pro Ser Ser Phe Thr Glu Leu Thr
        35                  40                  45
```

```
Phe Thr Leu Thr Arg Trp Lys Ser Ser Thr Val Thr Pro Arg Ser Phe
    50                  55                  60
Ser Gly Cys Pro Phe Ser Glu Thr Arg Ser Val Tyr Ser Ser Pro Ser
65                  70                  75                  80
Lys Ser Leu Ser Arg Arg Thr Ser Ser Ser Arg Leu Ser Ser Ala Asp
                85                  90                  95
Arg Thr Ala Asp Ser Pro Gly Ser Thr Lys Ser Ser Arg Arg Thr Thr
            100                 105                 110
Pro Ser Ile Pro Asn Arg Gly Thr Lys Thr Thr Thr Pro Phe Ser Lys
        115                 120                 125
Thr Arg Met Thr Tyr Pro Ser Ser Ser Ile Pro Ala Ser Thr Pro Ser
    130                 135                 140
Ala Ala Ile Phe Ser Pro Arg Ala Leu Ser Ala Cys Pro Thr
145                 150                 155
```

<210> 38023
<211> 122
<212> PRT
<213> A.fumigatus

<400> 38023

```
Asp His Glu Lys Gln Asn Ala Asn Asn Gln Asn Ser Asn Ile Ala Ile
1               5                   10                  15
Gln His Arg Phe Glu Asp Ile His Asn Arg Pro Lys Gln Ser Met Asp
            20                  25                  30
Arg Leu Gln Lys Ala Ala Gly Leu Gly Val Trp Tyr Ile Arg Ile Leu
        35                  40                  45
Ser Phe Val Arg Gly His Ser Gly Cys Leu Phe Gly Pro Cys Ile Ile
    50                  55                  60
Leu Ser Thr Phe Thr Ser Phe Thr Pro Cys Phe Gly Ser Ala Ser Ala
65                  70                  75                  80
Thr Thr Thr Arg Ser Asn Ser Gly Phe Glu Gly Ser Asp Lys Leu Ile
                85                  90                  95
Ala Glu Cys Gly Leu Ala Ile Asn Gly Thr Leu Phe Asp Arg Thr Tyr
            100                 105                 110
Met Phe Leu Ala Leu Ile His Val Arg Ser
        115                 120
```

<210> 38024
<211> 916
<212> PRT
<213> A.fumigatus

<400> 38024

```
Arg Thr Pro Pro Leu Thr Thr Arg Asn Ser His Thr Asp Phe Tyr Thr
1               5                   10                  15
Ser Ser Ser Pro Leu Ile Lys Thr Thr Ser Val Asp Pro Asn Asp Thr
            20                  25                  30
Asp Glu Thr Gln Ala Asp Val Glu Ser Ala Val Ser Gly Pro Ser Ala
        35                  40                  45
Thr Ala Ser Glu Thr Leu Pro Glu Gly Glu Leu Ser Arg Pro Ala Thr
    50                  55                  60
Ala Ser Gly Pro Met Leu Ser Ile Pro Glu Glu Arg Ser Ser Lys Lys
65                  70                  75                  80
Arg Ala Val Ser Pro Gly Arg Arg Leu Lys Lys Ala Phe Ser Ser Asn
                85                  90                  95
```

```
Ser Asn Lys Lys Asp Thr Asn Arg Glu Arg Thr Ser Ser Thr Ser Gly
            100                 105                 110
Ala Ser Thr Lys Ser Gly Gly Leu Leu Ser Arg Arg Ser Ser Leu Ser
        115                 120                 125
Ser Lys Arg Ser Gln Thr Met Glu Val Glu Pro Leu Pro Val Pro Pro
    130                 135                 140
Pro Val Leu Thr Asn Leu Lys Glu Asp Lys Pro Leu Arg Ile Ser Asp
145                 150                 155                 160
Gly Pro Asn Pro Pro Arg Thr Pro Pro His Thr Ala His Pro Ala Pro
                165                 170                 175
Gln Thr Thr Val Thr Pro Pro Thr Pro Thr Asp Ser Arg Ser Glu Phe
            180                 185                 190
Pro Arg Leu Phe Ser Ser Pro Asp Val Thr Glu Ser Pro Glu Ser Val
        195                 200                 205
Lys Ser Lys Asp Leu Pro Ser Gly Val Ile Val Ser Thr Ser Gly Asn
    210                 215                 220
Met Ile Ser His Arg Arg Val Arg Ser Ala Ser Ser Ala Ser His Lys
225                 230                 235                 240
Pro Ser Lys Leu Ser Asn Ser Ile Ser Val Leu Thr Pro Thr Ala Glu
                245                 250                 255
Glu Pro Lys Ala Pro Ser Arg Ser Pro Ser Ser Asn Gln Gln Thr Gly
            260                 265                 270
Phe Phe Ser Ser Val Phe Ser Ala Ala Gln Asn Ala Ala Ser Thr Leu
        275                 280                 285
Ser Ser Ser Leu Asn Pro Gln Ala Lys Ala Arg Met Val Ala Gln Pro
    290                 295                 300
Glu Pro Ala Ala Ser Asp Glu Ser Gln Ser Lys Ser Thr Ala Glu Gly
305                 310                 315                 320
Ser Lys Glu Asn Glu Trp Ser Thr Gly Glu Lys Lys Pro Ser Ala Ile
                325                 330                 335
Asp Thr Leu Gly Ser Gly Asp Leu Asn Phe Ser His Leu Asp Ile Asp
            340                 345                 350
Ala Pro Ser Gly Gly Ser Val Ser Thr Pro Asp Gly Val Val Ile Thr
        355                 360                 365
Lys Pro Asp Arg Val Thr Glu Lys Arg Ala Ala Tyr Lys Lys Asp Glu
    370                 375                 380
Glu Ala Ala Arg Leu Glu Asp Gln His Ala Ala Arg Ala Val Ser Met
385                 390                 395                 400
Ala Tyr Glu Lys Pro Ser Glu Gln Ser Ser Ala His Pro Ala Glu Glu
                405                 410                 415
Gly Leu Glu Leu Gln Ser Ala Asn Ser Leu Ser Arg Ala Asp Gly Asp
            420                 425                 430
Gln Thr Thr Pro Ser Gly Ser Ile Phe Glu Gly Glu Thr Gly Thr Arg
        435                 440                 445
Pro Tyr Arg Ser Gly Ser Val Arg Ser Arg Leu Ala Gln Arg Arg His
    450                 455                 460
Arg Gly Ser Ser Gly Ala Thr Ala Ser Thr Val Gly Leu Ala Gly Ala
465                 470                 475                 480
Ser Ala Ile Ala Leu Gly Val Pro Gly Ala Asn Ala Ser Val Pro Arg
                485                 490                 495
Leu Thr Gly Phe Ala Val Ala Ser Lys Lys Arg Asn Arg Asp Phe His
            500                 505                 510
Gln Leu Phe Arg Ser Val Pro Glu Asp Asp Tyr Leu Ile Glu Asp Tyr
        515                 520                 525
Ser Cys Ala Leu Gln Arg Glu Ile Ile Leu Ala Gly Arg Ile Tyr Ile
    530                 535                 540
```

```
Ser Glu Gly His Ile Cys Phe Ser Ser Asn Ile Leu Gly Trp Val Thr
545                 550                 555                 560
Thr Leu Val Ile Ser Phe Asp Glu Ile Val Ala Ile Glu Lys Glu Ser
                565                 570                 575
Thr Ala Met Val Phe Pro Asn Ala Ile Ala Ile Gln Thr Leu His Ala
            580                 585                 590
Arg His Thr Phe Arg Ser Leu Leu Ser Arg Glu Ser Thr Tyr Asp Leu
        595                 600                 605
Met Val Asn Ile Trp Lys Ile Asn His Pro Ala Leu Lys Ser Ser Val
    610                 615                 620
Asn Gly Thr Arg Val Ala Thr Gly Thr Gly Asp Lys Thr Glu Lys Ala
625                 630                 635                 640
Gly Glu Ser Glu Val Glu Ser Asp Asp Asp Glu Glu Glu Glu Ile Tyr
                645                 650                 655
Asp Glu Asp Glu Glu Gly Asp Asn Ala Glu Ser Val Phe Gly Pro Gly
            660                 665                 670
Gly Ala Ser Ala Asn Ala Ser Glu Arg Ser Leu Pro Thr Lys Gly Leu
        675                 680                 685
Ser Arg Gln Ala Ser Gly Leu Leu Gln Asn Gly Asn Gly Thr Ala Pro
    690                 695                 700
Thr Ala Met Pro Asn Ser Ser Gly Glu Ser Lys Ala Gly Lys Ser Ser
705                 710                 715                 720
Pro Gly Gly Asp Leu Asp Ala Asp Phe Pro Gly Pro Ala Thr His Pro
                725                 730                 735
Pro Thr Glu Tyr Thr Glu Ser Asn Gly Gln Tyr Asp Lys Val Ile Lys
            740                 745                 750
Asp Glu Ile Ile Pro Ala Pro Leu Gly Lys Val Tyr Ser Tyr Val Phe
        755                 760                 765
Gly Pro Ala Ser Gly Ser Phe Ile Pro Lys Phe Leu Val Glu Asn Gln
    770                 775                 780
Lys Ser Gly Glu Leu Gln Phe Glu Ser Glu Lys Lys Gly Leu Thr Asn
785                 790                 795                 800
Glu Ser Arg Thr Arg Lys Tyr Ser Tyr Ile Lys Pro Leu Asn Gly Ser
                805                 810                 815
Ile Gly Pro Lys Gln Thr Lys Cys Ile Ser Thr Glu Thr Leu Asp Phe
            820                 825                 830
Leu Asp Leu Glu Lys Ala Val Leu Val Thr Leu Ser Thr Gln Thr Pro
        835                 840                 845
Asp Val Pro Ser Gly Asn Val Phe Cys Thr Lys Thr Lys Tyr Leu Phe
    850                 855                 860
Thr Trp Ala Pro Gly Asn Gln Thr Arg Phe Phe Met Thr Cys Thr Ile
865                 870                 875                 880
Glu Trp Ser Gly Lys Ser Trp Leu Lys Gly Asn Ile Arg Phe Arg Ser
                885                 890                 895
Phe Met Asn Glu Arg Gly Leu Thr Leu Arg Thr Tyr Arg Ser Tyr Arg
            900                 905                 910
Lys Gly Cys His
        915
```

<210> 38025
<211> 173
<212> PRT
<213> A.fumigatus

<400> 38025
Leu Asp Trp Ser Lys His Tyr Leu His Ser Ala Ser Thr Pro Arg Pro

```
1               5                   10                  15
Val Pro Ser Leu Pro Ser Leu Phe Pro His Ser Ala Ile Phe Leu Met
            20                  25                  30
Glu Glu Pro Ala Ile Pro Glu Pro Pro Pro Val Pro Gln Thr Glu Pro
        35                  40                  45
Gln Gly Phe Ser Lys Ser Asn Arg Thr Trp Thr Thr Pro Ala Asp Leu
    50                  55                  60
Asp Thr Met Trp Ser Ser Gly Arg Ser Asn Gly Gly Ala Ser Ile Ser
65                  70                  75                  80
Ser Gly Ser Asp Arg Pro Lys Ser Gln Ala Gly Glu Val Ala Glu Thr
                85                  90                  95
Ala Lys Ala Gly Ser Ser Gly Phe Ser Lys Leu Leu Asn Ala Arg Arg
            100                 105                 110
Lys Arg Lys Lys Glu Lys Glu Gln Lys Gln Thr Glu Glu Ser Ser Leu
        115                 120                 125
Val Ser Gln Asn Asp Pro Asp Leu Gln Glu Ser Arg Ser Asn Glu Ser
    130                 135                 140
Arg Gly Glu Ser Ala Ser Ala Asn Asp Asn Leu Ser Pro Pro Gly Glu
145                 150                 155                 160
Val Ile Thr Leu Leu Thr Asp Asp Ser Glu Pro Asp Arg
                165                 170
```

<210> 38026
<211> 178
<212> PRT
<213> A.fumigatus

<400> 38026

```
Thr Arg Ser Phe Gln Pro Arg Gly Glu Asp Glu Thr Gln Asn Gln Ile
1               5                   10                  15
Ala Asp Glu Asn Arg Arg Leu Ala Asp Leu Ser Gly Gly Ser Tyr Ser
            20                  25                  30
Arg Lys Glu Glu Gln Val Gln Gln Ala Lys Ile Glu Ala Ala Glu Ile
        35                  40                  45
Arg Lys Gln Cys Glu Glu His Gln Gln Ser Ala Arg Gln Leu Tyr Gln
    50                  55                  60
Glu Ala Glu Glu Ala Glu Ile Ala Val Lys Leu Ala Ala Ala Pro Ile
65                  70                  75                  80
Asp Lys Met Lys Ala Glu Val Asp Gln Ala Glu Ser Asn Leu Arg Ser
                85                  90                  95
Leu Ser Arg Glu Gly Ile Arg Arg Thr Gly Phe His Glu Arg Met Pro
            100                 105                 110
Ala Leu Leu Lys Glu Val Glu Thr Glu Arg Ser Phe Ser Arg Lys Pro
        115                 120                 125
Val Gly Pro Ile Gly Ser Tyr Val Ser Leu Leu Lys Pro Glu Trp Ser
    130                 135                 140
Ser Ile Leu Glu Asn Ala Leu Gly Thr Thr Leu Asn Ser Phe Ile Val
145                 150                 155                 160
Thr Ser Lys Arg Asp Met Asn Ile Leu Ser His Ile Met Gln Arg Val
                165                 170                 175
Gly Trp
```

<210> 38027
<211> 233
<212> PRT

<213> A.fumigatus

<400> 38027
Gly Val Ala Thr Ser Thr Asn Ile Arg Val His Arg Ile Gln Arg Asp
1 5 10 15
Val Val Ala Gly Leu Arg Arg Glu Leu Ser Asn Gln Glu Gln Gln Leu
20 25 30
Arg Ser Ala Arg Ser Arg Leu Glu Ser Cys Lys Gln Ala Ile Glu Arg
35 40 45
His Lys Arg Arg Ser Lys Glu Leu Gln Val Leu Leu Gln Arg Gln Glu
50 55 60
Asp Gln Val Glu Glu Leu Thr Asp Ala Leu Glu Arg Glu Thr Val Glu
65 70 75 80
Asp Gly His Leu Asp Val Leu Arg Thr Thr Leu Gln Glu Ala Glu Ala
85 90 95
Glu Lys His Leu Asn Glu Gly Ser Leu Lys Asp Ser Val Asp Ala Met
100 105 110
Asp Ala Ile Met Arg Lys Leu Lys Ala Thr Lys Gln Glu Leu Ser Ala
115 120 125
Lys Asp Ala Glu Ile Ser Thr Leu Gln Glu Glu Leu Arg Val Ala Gln
130 135 140
Gly Glu Glu His Leu Val Gln Asp Lys Arg Arg Lys Ile Ile Gly Leu
145 150 155 160
Lys Asn Thr Ala Ile Glu Arg Val Asn Asp Ile Lys Leu Asn Arg Thr
165 170 175
Arg Ile Gln Gln Glu Lys Asp Arg Val Ala Ala Arg Val Val Glu Tyr
180 185 190
Glu Glu Lys Ala Ser Leu Val Ser Pro Arg Val Ala Ile Asp Glu Gly
195 200 205
Glu Thr Ala Asn Ser Leu Ser Lys Lys Leu Glu Arg Leu His Gly Asp
210 215 220
Leu Gln Arg Ser Asn Gln Gln Ser Val
225 230

<210> 38028
<211> 83
<212> PRT
<213> A.fumigatus

<400> 38028
Pro Phe Val Gln Val Leu Lys Ala Thr Leu Arg His Arg Lys Ala Arg
1 5 10 15
Trp Leu Ile Phe Arg Ser His Ile Ser Ser Arg Ala Lys Ala Gln Phe
20 25 30
Thr Tyr Leu Leu Ser Glu Arg Ser Phe Arg Gly Arg Leu Leu Thr Asp
35 40 45
His Asn Ser Lys Leu Leu Asp Leu Gln Ala Gly Asp Ala Glu Tyr Arg
50 55 60
Gln Ala Trp Ser Leu Asp Leu Thr Ser Tyr Leu Gly Arg Ala Gly His
65 70 75 80
Asn Lys Gly

<210> 38029
<211> 439
<212> PRT

<213> A.fumigatus

<400> 38029

```
Leu Thr Pro Val Asp Ile Leu Pro Leu Ile Arg Leu Gly Leu Asp Ser
1               5                  10                  15
Ser Ala His Ser Leu Val Asp Ala Ala Ile Lys Cys Leu Pro Val Ile
            20                  25                  30
Leu Pro Val Leu Asp Phe Ser Thr Val Lys Asn Glu Val Phe Pro Pro
        35                  40                  45
Ile Ala Ser Thr Phe Ser Arg Thr Ser Ser Leu Ala Ile Lys Val Arg
    50                  55                  60
Cys Leu Asp Ala Phe Ala Val Leu Cys Gly Gly Thr Thr Gly Asp Asp
65                  70                  75                  80
Ala Ala Ser Glu Asp Gly Leu Ser Gly Ile Ala Thr Val Lys Thr Pro
                85                  90                  95
Thr Thr Val Lys Ser Ser Ile Leu Asp Lys Tyr Thr Ile Gln Glu Lys
            100                 105                 110
Leu Val Pro Ser Leu Lys Ala Ile Lys Thr Lys Glu Pro Ala Val Met
        115                 120                 125
Met Ala Ala Leu Lys Val Phe Gly Gln Ile Gly Thr Ile Val Asp Thr
    130                 135                 140
Glu Phe Leu Ala Leu Glu Val Leu Pro Ile Leu Trp Thr Phe Ser Leu
145                 150                 155                 160
Gly Pro Leu Leu Ser Leu Arg Gln Phe Glu Glu Tyr Met Thr Val Ile
                165                 170                 175
Lys Arg Leu Ser Ser Lys Ile Glu Arg Glu Gln Thr Lys Lys Leu Arg
            180                 185                 190
Glu Leu Ser Ser Gly Pro Glu Ala Thr Gly Phe Gln Thr Gly Leu Gly
        195                 200                 205
Ser Ser Leu Ser Met Ser Asn Asp Leu Met Gln Ser Glu Val Asp Thr
    210                 215                 220
Thr Arg Asn Asn Phe Glu Arg Leu Val Leu Gly Arg Glu Ser Thr Thr
225                 230                 235                 240
Pro Ser Ser Gln Gly Leu Asp Pro Trp Gln Glu Leu Ala Ser Gln Ala
                245                 250                 255
Pro Ala Pro Gln Ile Ser Thr Gln Lys Lys Ala Ala Asp Ala Phe Pro
            260                 265                 270
Trp Ser Ser Val Ser Arg Gly Gly Pro Gln Ser Asn Leu Asn Thr Arg
        275                 280                 285
Ser Val Thr Pro Asp Tyr Ser Met Ser Ser Phe Pro Ser Leu Glu Pro
    290                 295                 300
Val Ala Arg Glu Lys Ser Pro Ile Val Ala Gln Thr Val Pro Thr Ser
305                 310                 315                 320
Gln Pro Ser Ser Ser Thr Ala Trp Ser Leu Pro Gly Leu Leu Glu Tyr
                325                 330                 335
Ser Ala Gln Tyr Ala Gly Gln Trp Asn Trp Gln His Asp Trp Phe Asp
            340                 345                 350
His Gly Cys Ile Asp Arg Tyr Glu Val Ala Glu Gln Ala Arg Phe Gly
        355                 360                 365
Arg Leu Val Ala Ala Val Leu Gln Leu Phe Arg Phe Leu Asn Ser Thr
    370                 375                 380
Ser Ser Val Ser Thr Lys Tyr Asp Gly Val Val Cys Tyr Gln Leu Trp
385                 390                 395                 400
Trp Phe Asp Tyr Arg Trp Gln Gly Phe Ala Cys Arg Glu Ser Pro Gly
                405                 410                 415
Thr Cys Gln Leu Leu Lys Pro Arg Phe Asn Leu Asn Ala Asp Tyr Ala
```

420 425 430
Glu Ala Arg Ser Gly Lys Val
435

<210> 38030
<211> 314
<212> PRT
<213> A.fumigatus

<400> 38030
Arg Ala Val Trp Ser Leu Asp His Arg Ala Ala Phe Glu Gly Thr Arg
1 5 10 15
Ile Thr Leu Arg Gln Val Ser Pro Glu Ser Glu Pro Ile Tyr Asp Leu
20 25 30
Ile Ile Ala Leu Tyr Asn Ala Cys Asn Gly Asp Trp Val Ser Leu Ala
35 40 45
Arg Lys Thr Lys Val Ser Asp Glu His Leu Arg Phe Phe Leu Glu Tyr
50 55 60
Ala Ala Gln Phe Leu Gly Asn Cys Gly Asn Tyr Lys Gly Phe Gly Asp
65 70 75 80
Ser Lys Phe Ile Pro Arg Leu Pro Val Ala Ala Phe Glu Ala Leu Ala
85 90 95
Ser Ile Thr Pro Asp Ala Lys Ala Ala Phe Glu Lys Ala Asn Arg Thr
100 105 110
Gly Gly Gly Ile Tyr Glu Thr Ser Asn Gln Ser Leu Met His Leu Gly
115 120 125
Tyr Thr Glu Gly Gly His Met Thr Thr Tyr Tyr Pro Asp Ser Pro Ser
130 135 140
Ile Thr Lys Asp Glu Ile Thr Ala Ile Gly Asp Leu Met Glu Gln Lys
145 150 155 160
Gly Leu Pro Leu Glu Asn Thr Arg Leu Lys Lys Leu Pro Ser Gly Asp
165 170 175
Phe Glu Leu Leu Ile Ala Ser Gly Val Ser Ser Pro Pro Ser Arg Asp
180 185 190
Arg Asp Leu Gly Asp Val Glu Ser Leu Asp Leu Asp Gly Lys Leu Lys
195 200 205
Gly Lys Lys Val Gln Leu Val Phe Gly Asp His Arg Glu Glu Met Ala
210 215 220
Lys Ile Ala His Ser Val Lys Gln Ala Ser Leu Tyr Ser Ala Asn Glu
225 230 235 240
Asn Gln Lys Arg Met Leu Asn Ala Tyr Ala Leu Ser Phe Gly Ala Gly
245 250 255
Ser Ile Glu Ala Phe Lys Glu Ala Gln Arg Ile Trp Val Lys Asp Gln
260 265 270
Lys Pro Ile Leu Glu Thr Asn Leu Gly Phe Val Glu Thr Tyr Arg Asp
275 280 285
Pro His Gly Val Arg Gly Glu Trp Glu Gly Phe Val Ala Leu Val Ser
290 295 300
His Val Leu Arg Leu Val Ile Pro Gly Gly
305 310

<210> 38031
<211> 139
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (81)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38031
Val Asn Leu Glu Arg Thr Arg Ala Phe Gly Lys Leu Val Asp Ser Ala
1 5 10 15
Glu Ser Met Ile Pro Lys Leu Pro Trp Ser Lys Asp Phe Glu Lys Asp
20 25 30
Lys Phe Leu Ser Pro Asp Phe Thr Ser Leu Glu Val Leu Ser Phe Gln
35 40 45
Ser Ser Gly Val Pro Ala Gly Ile Thr Leu Pro Thr Met Thr Thr Ser
50 55 60
Pro Lys Ser Arg Leu Gln Lys Leu Leu Leu Arg Glu Phe Leu Ser Cys
65 70 75 80
Xaa Thr Pro Asn Glu Pro Val Pro Phe Ile Pro Gln Glu Arg Leu Gly
85 90 95
Val Leu Arg Lys Tyr Arg Asn Leu Pro Phe Gln Val Gln Phe Gly Phe
100 105 110
Pro Asn Phe Pro Gly Leu Glu Arg Glu Asn Leu Cys Arg Lys Arg Ser
115 120 125
Pro Glu Ile Thr Leu Gln Val Ser Asn Pro Pro
130 135

<210> 38032
<211> 309
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (56)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38032
Val Trp Gln Asp Leu Pro Asn Phe Arg Glu Phe Thr Phe Ile Ser Phe
1 5 10 15
Arg Arg Arg Val Leu Ser Glu Phe Phe Tyr His Asp Pro Glu Leu Pro
20 25 30
Gln Ser Val Gln Leu Asn Leu Glu Tyr Thr Ser Pro Asp Phe Ala Leu
35 40 45
Asp Ser Asn Val Thr Thr Ala Xaa Asp Met Phe Ser Leu Gly Leu Val
50 55 60
Val Ile Ala Leu Tyr Asn Ser Pro His Val Ser Pro Leu Gln Ser His
65 70 75 80
Ser Asn Leu Ser Ser Tyr Lys Lys Leu Leu Ser Ser Pro Ser Ser Thr
85 90 95
Pro Ser Gln Gly Asn Asn Phe Leu Cys Ala Gly Ala Ile Pro Lys Asp
100 105 110
Leu Ser Ser His Leu Leu Pro Lys Leu Ile Thr Arg Arg Pro Ala Gln
115 120 125
Arg Leu Asn Ala Arg Glu Phe Gln Gln Ser Gln Tyr Phe Asp Asn Ile
130 135 140
Leu Val Ser Thr Ile Arg Phe Leu Glu Ser Leu Pro Ala Lys Asn Ala
145 150 155 160

```
Asn Glu Lys Ser Gln Phe Met Arg Gly Leu Gln Gln Val Ile Thr Glu
                165                 170                 175
Phe Pro Pro Thr Val Leu Glu Lys Lys Val Leu Gly Ala Leu Leu Glu
            180                 185                 190
Glu Leu Lys Asp Arg Glu Leu Leu Pro Leu Thr Leu Gln Asn Val Phe
        195                 200                 205
Ala Ile Leu Gln Arg Val Ala Ser Ala Arg Arg Thr Leu Ser Glu Lys
    210                 215                 220
Val Ile Pro Arg Leu Lys Glu Ile Phe Phe Ala His Gln Ser Gly Lys
225                 230                 235                 240
Gly Thr Val Gln Glu Arg Asp Ser Lys Lys Asp Ala Gly Leu Met Val
                245                 250                 255
Val Leu Gln Asn Met Asn Ile Val Ala Glu Asn Cys Ser Gly Lys Glu
            260                 265                 270
Phe Lys Asp Gly Glu Ser Thr Ile His Tyr Ser Phe Ala Leu Val Thr
        275                 280                 285
Asp Pro Ser Arg His Phe Ala Ala Asp Ser Ala Trp Phe Gly Leu Val
    290                 295                 300
Ser Pro Phe Pro Gly
305
```

<210> 38033
<211> 81
<212> PRT
<213> A.fumigatus

<400> 38033

```
Leu Met Val Thr Ser Tyr Leu Asn Ser Ser Arg Asn Ala Pro Ser Ser
1               5                   10                  15
Arg Cys Leu Glu Ala Ser Ala Val Glu Ser Pro Val Ala Leu His Pro
            20                  25                  30
Pro Pro Ile Tyr Tyr Tyr Asp His Phe Ser Leu Thr Pro Gln Leu Ser
        35                  40                  45
Ala Ser Leu Phe Ala Pro His Pro Thr Ile Gln Phe Leu Ile Phe Asp
    50                  55                  60
Ser Phe Leu Cys Lys Leu Tyr Pro Ser Phe Asp Val Phe Arg Ser Arg
65                  70                  75                  80
Val
```

<210> 38034
<211> 82
<212> PRT
<213> A.fumigatus

<400> 38034

```
Asp Ile Ala Met Thr Ser Gly Pro His Gln Glu Gln Ala Arg Glu Met
1               5                   10                  15
Tyr Ser Ser Leu Arg Lys Asn Leu Val Glu Asn Val Phe Arg Gln Trp
            20                  25                  30
Lys Glu Thr Gly Phe Ala Trp Glu Gln Tyr Asn Pro Glu Thr Gly Lys
        35                  40                  45
Gly Gln Arg Thr Gln His Phe Thr Gly Trp Thr Ser Met Val Val Lys
    50                  55                  60
Ile Met Ser Met Pro Asp Leu Pro Ala Asn Lys Gln Ile Gly His Asp
65                  70                  75                  80
```

Glu Leu

<210> 38035
<211> 269
<212> PRT
<213> A.fumigatus

<400> 38035
Ser Leu Ser Leu His Leu Leu Thr Ile Thr Thr Glu Leu Ser Ala Asn
1 5 10 15
Gly Leu Lys Pro Arg Trp Ile Leu Leu Pro Val Phe Ala Lys Lys Ala
20 25 30
Ala Gly Lys Tyr Phe Val Lys Phe Ser Leu Pro Cys Ser Tyr Phe Met
35 40 45
Asn Ile Asp Cys Asn Ser Gly Gly Arg Gly Glu Phe Lys Trp Ser Asp
50 55 60
Val Lys Asp Ser Ala His Arg Glu Asn Tyr Leu Gly His Ser Leu Met
65 70 75 80
Ala Pro Val Gly Arg Trp Gln Gln Gly Arg Asp Leu Gln Trp Tyr Thr
85 90 95
Lys Gly Glu Thr Thr Ala Glu Glu Gln Ala Arg Arg Asp Arg Glu Glu
100 105 110
Leu Gln Arg Val Lys Gln Ala Glu Glu Glu Ala Met Ala Arg Ala Leu
115 120 125
Gly Leu Pro Leu Pro Val Ser Ser Gly Ser Ala Asn Ala Asn Leu Thr
130 135 140
Pro Leu Gly Glu Arg Glu Thr Glu Thr Ala Val Gln Asp Pro Ala Asp
145 150 155 160
Arg Lys Arg Glu Arg Arg Ser Glu Gln Ser Arg Ser Pro Gly Arg His
165 170 175
Arg Ile Arg Asp Arg Glu Ser Asn Arg Asp Arg Asp Arg Asp Arg Arg
180 185 190
Asp His Arg His His Arg His His Arg His His Glu Asp Arg Glu Arg
195 200 205
His His Arg Asn His Arg His Arg Ser Arg Ser Pro Ser Gly Asp Arg
210 215 220
Glu His Arg Arg Arg Arg Ser Ser Ser Arg Ser Thr Ser Arg Val Arg
225 230 235 240
Ala Gly Glu Asp Gly His Arg Arg His Arg Glu Asp His Arg Arg Arg
245 250 255
His Pro Arg Asp His Asp Ser Asp His Tyr Arg Arg Arg
260 265

<210> 38036
<211> 374
<212> PRT
<213> A.fumigatus

<400> 38036
Gln Trp Val Trp Ile His Ser Glu Met Thr Ala Trp Ser Trp Phe Leu
1 5 10 15
Phe His Cys Asp Arg Leu Ala Arg Lys Asn Thr Phe Asn Leu Phe Asn
20 25 30
Leu Arg Cys Gly Lys Val Arg Arg His Ser Asp Val Val Thr Lys Pro
35 40 45

```
Cys Val Gly Phe Met Ile Asn His Ile Pro His Arg Ser Phe Thr Val
    50                  55                  60
Asp Ile Leu Ser Ser Ser Pro Thr Leu Tyr Trp Pro Lys Asn Met Glu
65                  70                  75                  80
Asn His Pro Thr Ala Leu Ser Ile Ile Glu Ala Glu Asn Leu Thr His
                85                  90                  95
Ala Leu Pro Asp Lys Val Ile Phe Ile Thr Gly Cys Ser Ser Gly Leu
            100                 105                 110
Gly Ala Ala Thr Ala Arg Ala Leu Ser Asn Thr Asn Ala Thr Leu Phe
        115                 120                 125
Leu Ala Val Arg Asp Thr Pro Lys Ala Arg His Val Leu Ala Asp Leu
    130                 135                 140
Leu Ala Ser Ala Ser Asp Ser Asp Ser Gly Ser Arg Leu Ala Ser Asp
145                 150                 155                 160
Ala Asp Gly Lys Cys Ser Thr Ser Thr Ser Thr Ser Thr Ser Gln Ser
                165                 170                 175
Glu Ile Arg Leu Leu His Met Asp Leu Ala Ser Leu Ser Ser Ile Arg
            180                 185                 190
His Ala Val Thr Ser Phe Leu Ser Gln Ser Asp Lys Leu Asn Ile Leu
        195                 200                 205
Ile Asn Asn Gly Gly Val Met Ala Thr Pro Glu Ser Arg Thr Glu Asp
    210                 215                 220
Gly Phe Glu Thr Gln Phe Gly Thr Asn His Leu Gly His Phe Leu Leu
225                 230                 235                 240
Phe Gln Leu Leu Lys Pro Leu Leu Leu Arg Ser Ala Thr Pro Gln Phe
                245                 250                 255
His Ser Arg Val Val Ser Val Thr Ser Ser Ala His Arg Lys Ser Gly
            260                 265                 270
Ile Arg Phe Gly Asp Leu His Phe Glu Thr Glu Lys Tyr Asp Gly Ala
        275                 280                 285
Leu Ala Tyr Ala Gln Ser Lys Thr Ala Asn Ile Tyr Met Met Asn Glu
    290                 295                 300
Ile Glu Arg Arg Phe Gly Gly Gln Gly Leu His Gly Leu Ser Val His
305                 310                 315                 320
Pro Gly Leu Ile Leu Thr Gly Leu Gln Lys Phe Thr Asp Arg Arg Val
                325                 330                 335
Ser Gly Glu Ala Phe Arg Asn Ser Thr Glu Leu Leu Lys Asp Thr Glu
            340                 345                 350
Thr Lys Leu Thr Thr Arg Asp Gly Glu Lys Arg Arg Arg Asp Asp Ser
        355                 360                 365
Ile Ile Lys Leu Leu Ile
    370
```

<210> 38037
<211> 125
<212> PRT
<213> A.fumigatus

<400> 38037

```
Thr Pro Pro Ser Gly Ser Ala Ile Leu Ser Ser Thr Gln Lys Pro Leu
1               5                   10                  15
Arg Asn Thr Thr Ala Ile Arg Ile Lys Phe Ile Met Ser Ser Thr Ile
            20                  25                  30
Asp His Val Gly Ile His Ala Pro Lys Asp Gln Phe Glu Ser Ile Ile
        35                  40                  45
Asp Trp Tyr Lys Lys Ala Leu Ala Pro Leu Asn Tyr Arg Glu Ile Met
```

```
    50                  55                  60
Arg Phe Pro Gly Ala Val Gly Leu Gly Ser Glu His Pro Asp Phe Trp
65                  70                  75                  80
Ile Ser Glu Thr Asp Glu Gln Cys Gly Gly Phe His Phe Ala Phe Ile
                85                  90                  95
Ala His Gly Arg Phe Pro Leu Val Pro Gly Gly Pro Thr Ala Asp Asp
            100                 105                 110
Gln Thr Met Leu Arg Leu Thr Leu Phe Thr Arg Leu Leu
        115                 120                 125

<210> 38038
<211> 64
<212> PRT
<213> A.fumigatus

<400> 38038
Leu Leu Val Glu Asp Gly Ala Asp Val His Gln Lys Ala Tyr Leu Gly
1               5                   10                  15
Arg Ser Ala Arg Ser Leu Ala Ala Asp Gln Gly His Val Glu Ser Val
            20                  25                  30
Arg Trp Arg Ile Asp Gln Arg Ala Asp Ile Asn Glu Ser Asp Gly Ile
        35                  40                  45
Ser Arg Thr Pro Leu Ser Trp Ala Met Gln Met Asp Ser Arg Gly Gly
    50                  55                  60

<210> 38039
<211> 80
<212> PRT
<213> A.fumigatus

<400> 38039
Leu Trp Cys Ser Cys Val Ala Leu Asp Gly Arg Leu Ser Ser Ser Cys
1               5                   10                  15
Trp Pro Ser Leu Ala Ile Gly Val Pro His Val Tyr Leu Val Ser Leu
            20                  25                  30
Ser Ile Trp Pro Tyr Arg Thr Leu Leu Gln Leu Ile Ser His Phe Asn
        35                  40                  45
Ser Gly Thr Phe Leu His Gly Asp Asn Ile Val Thr Gln Met Ala Tyr
    50                  55                  60
Leu Ser Phe Pro Phe Glu Ser Ser Phe Tyr Arg Asp Tyr Cys Arg Cys
65                  70                  75                  80

<210> 38040
<211> 269
<212> PRT
<213> A.fumigatus

<400> 38040
Gly Leu Ala Ile Leu Thr Val Leu Lys Ala Gly Phe Leu Gly Ser Ala
1               5                   10                  15
Arg Phe Gly Ser Gly Ile Val Val Ala Arg Leu Ala Asp Gly Thr Trp
            20                  25                  30
Ser Ala Pro Ser Ala Ile Ala Thr Ala Gly Ala Gly Phe Gly Gly Gln
        35                  40                  45
Ile Gly Phe Glu Leu Thr Asp Phe Val Phe Ile Leu Asn Asp Ala Ala
    50                  55                  60
```

```
Ala Val Arg Thr Phe Ser Gln Val Gly Thr Leu Thr Leu Gly Gly Asn
65                  70                  75                  80
Val Ser Ile Ala Ala Gly Pro Val Gly Arg Asn Ala Glu Ala Ala Gly
                85                  90                  95
Ala Ala Ser Thr Lys Gly Val Ala Ala Val Phe Ser Tyr Ser Lys Thr
            100                 105                 110
Lys Gly Leu Phe Ala Gly Val Ser Leu Glu Gly Ser Met Leu Val Glu
        115                 120                 125
Arg Lys Asp Ala Asn Glu Lys Met Tyr Asn Ser Arg Val Ser Ala Arg
    130                 135                 140
Gln Leu Leu Ser Gly Thr Ile Arg Pro Pro Pro Ala Ala Asp Pro Leu
145                 150                 155                 160
Leu Arg Val Leu Asn Ser Arg Ala Phe Tyr Gly Asn Gly Arg Asn Gly
                165                 170                 175
Asp Thr Met Tyr Asn Asp Ile Pro Ile Tyr Asp Asp Arg His Asp Asp
            180                 185                 190
Val Val Trp Glu Gly Arg Arg Gly Glu Ala Tyr Gly Glu Gly Gln Arg
        195                 200                 205
Arg Asp Arg Gly Gly Phe Asn Gly Thr Asp Asp Tyr Glu Tyr Arg Asp
    210                 215                 220
Arg Pro Arg Ala Ser Thr Trp Ala Asp Asp Val Tyr Asp Arg Pro Pro
225                 230                 235                 240
Ala Gly Leu Ala Arg Ser Phe Tyr Tyr Gly Ser Arg Arg Cys Phe Arg
                245                 250                 255
Gln Ile Arg Arg Pro Gln Ser Glu Gln His Arg Ser Ile
            260                 265
```

<210> 38041
<211> 445
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (53),(61),(78)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38041

```
Leu Arg Leu Leu Pro Gln Thr Lys Met Thr His Leu Val Tyr Ser Gly
1               5                   10                  15
Phe Gln Leu Gly Cys Ile Gln Ser Trp Leu Pro Arg Ser Ser Asn Pro
            20                  25                  30
Ser Ser Lys Leu Arg Arg Asn Arg Ser Asp Glu Asn Arg Ala Lys Phe
        35                  40                  45
Ser Ala Ser Asn Xaa Val Gly Gln Gly Gly Arg Phe Xaa Arg Lys Lys
    50                  55                  60
Ser Met Leu Ser Arg Gln Ile Asp Thr Leu Pro Gly Tyr Xaa Asp Gly
65                  70                  75                  80
Arg Glu Pro Phe Gln Pro Glu Arg Ser Gln Ser Arg Asn Lys Ser Leu
                85                  90                  95
Ser Pro Asn Leu Leu Gln Leu Glu Ser Val Ser Glu Asp Ser Lys Leu
            100                 105                 110
Gln Thr Pro Ser Ala Ala Ser Phe Leu Asp Gly Val Gln Lys Leu Thr
        115                 120                 125
Ile Glu Glu Asp Val Pro Ile Leu Pro Pro Ala Pro Pro Gly His Ser
    130                 135                 140
```

```
Leu Arg Arg Ser Thr Arg Thr Gln Tyr Arg Lys Ala Gly Ser Leu Arg
145                 150                 155                 160
Lys Gly Glu Lys Val Pro Phe Ser Lys Arg Ala Gly Arg Ala Ser Asp
                165                 170                 175
Thr Asn Asp Arg Ala Ser Ser Ile Thr Ser Ser Ser Ala Asp Glu Pro
            180                 185                 190
Pro Ser Gly Leu Thr Arg Val Ala Thr Asp Pro Thr Pro Ser Thr Arg
        195                 200                 205
Arg Ala Gln Ala Glu Pro His Tyr Pro Ile Gln Ala Ala Val Ser Ser
    210                 215                 220
Ser Thr Gln Phe Asp Asn Ser Arg Ala Asn Gly Trp Pro Glu Thr Asn
225                 230                 235                 240
Leu Gly Asp Arg Thr Asn Ala Ser Pro Gln Ala Arg His Gln Trp His
                245                 250                 255
Ser Arg Ile Ser Ser Asn Gly Arg Ser Thr Leu Asn Ile Pro Pro Thr
            260                 265                 270
Glu Gln Arg Val Pro Glu Ile Ile Glu Thr Pro Pro Ala Glu Ser Pro
        275                 280                 285
Ala Thr Pro Thr Thr Pro Thr Thr Ser Thr Thr Pro Thr Thr Pro Thr
    290                 295                 300
Tyr His His Ser Tyr Ser Ser Gly Arg Glu Ala Ser Gln Asp Ala Pro
305                 310                 315                 320
Pro Thr Leu Pro Ser Lys Asp Ser Pro Leu Arg Asp Pro Ser Thr Thr
                325                 330                 335
Lys Arg Ser Gly Ala Ala Arg Leu Pro Gly Lys Glu Ser Ser Lys Thr
            340                 345                 350
Leu Asn Asp Phe Ala Asn Asn Pro Gln Pro Leu Pro Gly Asn Thr Thr
        355                 360                 365
Arg Thr Asp Asn Leu Ser Phe Ile Pro Thr Ile Ser Glu Asp Arg Lys
    370                 375                 380
Pro Glu Pro Lys Lys Ser Lys Asp Lys Lys Asp Ser Glu Gly Ser Arg
385                 390                 395                 400
Lys Ser Ser Trp His Trp Leu Leu Gly Ser Glu Glu Lys Asp Lys Asp
                405                 410                 415
Lys Asp Lys Glu Lys Lys Lys Asp Lys Asp Ser Asp Leu Lys Lys Ser
            420                 425                 430
Glu Ser Lys Ser Ala Gly Ser Thr Ser Arg Arg Ser Lys
        435                 440                 445
```

<210> 38042
<211> 189
<212> PRT
<213> A.fumigatus

<400> 38042

```
Thr Pro Ala His Ser Thr Ala Met Ala Glu Thr Glu Thr Pro Cys Thr
1               5                   10                  15
Met Ile Phe Pro Ser Met Met Thr Asp Met Thr Met Leu Ser Gly Arg
            20                  25                  30
Ala Glu Gly Ala Arg His Thr Val Arg Gly Asn Gly Val Thr Ala Ala
        35                  40                  45
Val Leu Thr Ala Pro Met Thr Thr Ser Ile Ala Thr Asp Leu Ala Arg
    50                  55                  60
Val Leu Gly Gln Thr Thr Phe Thr Ile Gly Pro Pro Gln Val Trp Pro
65                  70                  75                  80
Val Leu Ser Ile Met Val His Ala Asp Ala Phe Asp Arg Tyr Gly Ala
```

```
                85                  90                  95
Arg Ser Arg Ser Asn Thr Val Pro Phe Asp Glu Asp Tyr Val Tyr Ser
            100                 105                 110
Asp Arg Lys Pro Ser Arg Pro Arg Lys Pro Lys Pro Val Phe Gly Gln
        115                 120                 125
Arg Thr Gly Gln Ser Ala Leu Leu Arg Ala Asp Gln Pro Phe Ala Leu
    130                 135                 140
Tyr Thr Phe Asp Ala Asp Gln Glu Gly Asp Leu Gly Phe Lys Lys Gly
145                 150                 155                 160
Asp Ile Ile Thr Ile Leu Lys Arg Thr Asp Lys Ala Glu Asp Trp Trp
                165                 170                 175
Thr Gly Arg Ile Gly Asp Arg Val Gly Ile Phe Pro Arg
            180                 185
```

<210> 38043
<211> 62
<212> PRT
<213> A.fumigatus

<400> 38043

```
Thr Ser Leu Asn Ile Leu Glu Phe Val Arg Asn Arg Leu Ser Phe Ala
1               5                   10                  15
Gln Tyr Val Ile Thr Phe Leu Leu Arg Thr Leu Ile Ile Arg Glu Ile
            20                  25                  30
Met Tyr Pro Met Asn Trp Ile Lys Ala Glu Ile Ala Glu Pro Pro Thr
        35                  40                  45
Leu Ser Arg Val Pro Tyr Phe Val Val Pro Val Ser Ile Ala
    50                  55                  60
```

<210> 38044
<211> 247
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (230),(238)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38044

```
Ala Ser Pro Ser Pro Ser Glu Ala Gly Gly Gly Tyr Gly Thr Arg Arg
1               5                   10                  15
Gly His Val Pro Gln Leu Ser Ile Ser Asp Pro Ser His His Val Thr
            20                  25                  30
Glu Ala Ile Gly His Met Tyr Glu Asp Asp Tyr Asp Arg Arg Glu Ser
        35                  40                  45
Lys Arg Leu Ser Phe Leu Ser Ser Pro Leu Ser Glu Ser Ile Ser Ile
    50                  55                  60
Ile Pro Pro Ser Leu Ala Gly Ser Glu Asp Ser Ala Ser Pro Gln Ser
65                  70                  75                  80
Leu His Val Gln Asn Arg Ser Asn Ala Val Asp Ser Pro Gln Thr Asn
                85                  90                  95
Gly Arg Ser Arg Pro Ser Leu Val Ser Ser Lys Ser Val Asp Arg Asp
            100                 105                 110
Thr Ser Asn Pro Thr Ser Pro Pro Ser Thr Asp Thr Ala Thr Thr Ser
        115                 120                 125
```

```
Phe Pro Leu Asn Asp Val Asp Tyr Glu Ser Asp Pro Ala Ala Val Ala
    130                 135                 140
Gln Glu Leu Ser Asn Leu Ala Ala Ile Arg Arg Met Ser Met Asp Val
145                 150                 155                 160
Thr Ala Thr Gly Asp Pro Asp Leu Pro Ser Phe Ser Val Pro Ser Ile
                165                 170                 175
Ala Pro Ser Pro Ser Ala Asp Glu Asn Asp Ala Ser Arg Leu Phe Trp
            180                 185                 190
Val Pro Ala Arg Leu His Pro Glu Leu Ala Pro Lys Glu Phe Lys Ser
        195                 200                 205
Phe Leu Glu Thr Lys Ala Glu Gln Ile Arg Arg Lys Ser Gly Glu Ile
    210                 215                 220
Leu Gly Phe Glu His Xaa Gly Ala Gly Gly Ser Leu Pro Xaa Lys Lys
225                 230                 235                 240
Val Tyr Val Val Pro Thr Asp
                245
```

<210> 38045
<211> 195
<212> PRT
<213> A.fumigatus

<400> 38045

```
Met Ile Ser Thr Ile Leu Ser Gln Val Val Gln Leu Ile Pro Ala Pro
1               5                   10                  15
Cys Arg Arg Thr Cys Thr Phe Pro Thr Arg Pro Leu Gly Gly Gln Arg
            20                  25                  30
Ala Leu Ser Leu Arg Thr Thr Asn Ser Asn Arg Asp Trp Gly Thr Thr
        35                  40                  45
Gly Gly Pro Leu Pro Cys Asn Val Arg Asn Pro Thr Phe Asp Ser Ser
    50                  55                  60
His Pro Pro Pro Phe Gly Ser Ile Phe Leu Asn Gln Phe Leu Ala Ala
65                  70                  75                  80
Gln Arg Ser Gly Ser Cys Ala Arg Asp Ile Arg Phe Ser Phe Val Thr
                85                  90                  95
Cys Pro Ile Arg Asn Val Pro Leu Val Phe Leu Ala Glu Ala Asn Trp
            100                 105                 110
Arg Cys Ile Ile Phe Leu Pro Ile Ser Phe Tyr Leu Gly Phe Ala His
        115                 120                 125
Ile Pro His His His His His His His His His His Tyr Ala Leu Leu
    130                 135                 140
Pro Leu Arg Ile Cys Phe Leu Ser Val His Gly His Phe Ala Leu Ile
145                 150                 155                 160
Arg Pro Cys Ile Ser Ala Leu Gly Gly Val Arg Thr Ser Ser Asp Leu
                165                 170                 175
Cys Ser Leu Phe Val Ser Phe Cys Leu Met Cys Asp Thr Thr Arg Thr
            180                 185                 190
Lys His Gln
        195
```

<210> 38046
<211> 162
<212> PRT
<213> A.fumigatus

<400> 38046

```
Val Leu Ala Phe Ser Gly Ala Thr Leu Arg Arg Arg Ser Ser Ser Ser
1               5                  10                  15
Ser Ala Ser Lys Gly Ala Met Ser Leu Ser Thr Pro Lys Ser Pro Pro
            20                  25                  30
Ser Leu Phe Cys Val Asn Ser Leu Cys Arg Lys Glu Ser Gly Ser Arg
        35                  40                  45
Phe Leu Ser Leu Ala Ser Leu Cys Thr Asn Ser Ser Ser Thr Ser Ser
    50                  55                  60
Ser Ser Ser Ser Ser Phe Arg Phe Pro Ser Thr Pro Ser Ala Ser Gly
65                  70                  75                  80
Lys Arg Thr Ser Phe Ser Leu Thr Phe Val Val Arg Gly Gly Lys Arg
                85                  90                  95
Gly Cys Ala Ala Ser Arg Pro Ile Val Ala Ala Val Leu Ala Ser Arg
            100                 105                 110
Leu Pro Leu Pro Ile Gly Pro Glu Pro Pro Ala Leu Leu Pro Ala Pro
        115                 120                 125
Ile Asn Pro Pro Ala Ala Asp Ala Arg Arg Glu Arg Gly Arg Gly Cys
    130                 135                 140
Val Val Val Glu Gly Gly Pro Arg Cys Cys Met Glu Gly Thr Ser Glu
145                 150                 155                 160
Ala Tyr
```

<210> 38047
<211> 78
<212> PRT
<213> A.fumigatus

<400> 38047

```
Pro Ala Ala Pro Asp Gln Thr Trp Ile Ile Ile Val Leu Ile Leu Ile
1               5                  10                  15
Ser Ile Val Val Thr Thr Ser Glu Val Phe Leu Arg Phe Gly Leu Leu
            20                  25                  30
Ser Ala Arg Glu Lys Asn Pro Ser Ser Thr Ser Phe Gly Ala Met Leu
        35                  40                  45
Phe Ser Arg Ala Ser Asn Pro Ala Ile Cys Ser Cys Pro Ala Gln Gly
    50                  55                  60
Ala Phe Asp Met Asn Ala Thr Gly Leu Gly Ser His Tyr Ser
65                  70                  75
```

<210> 38048
<211> 385
<212> PRT
<213> A.fumigatus

<400> 38048

```
Ala Ile Ala Val Leu Pro Ala Arg Gly Glu Asp Leu Thr Pro Lys Leu
1               5                  10                  15
Gln Val His Ala Ser Asp Asp Asn Ala Lys Asp Gly Tyr Thr Thr Asp
            20                  25                  30
His Glu Thr Asp Arg Ile Ser Ala Asn Gly Ser Thr Leu Lys Pro Ala
        35                  40                  45
Pro Lys Ser Gly Ala Pro Ala Pro Lys Lys Arg Ala Asn Asp Lys Asp
    50                  55                  60
Ser Thr Thr Lys Arg Thr Asn Pro Thr Lys Ser Lys Ser Ser Thr Asn
65                  70                  75                  80
```

```
Ser Thr Leu Thr Gly Arg Val Thr Lys Lys Thr Glu Arg Lys Pro Ala
                85                  90                  95
Ser Lys Thr Glu Gly Lys Phe Lys Ser Ala Glu Phe Val Gln Glu Ser
            100                 105                 110
Asp Glu Asp Asp Thr Asp Met Pro Asp Ala Pro Val Pro Thr Pro Ala
        115                 120                 125
Pro Ala Pro Glu Lys Ala Lys Pro Glu Gln Ser Lys Val Gln Pro Lys
    130                 135                 140
Thr Lys Gln Thr Ala Ser Ser Asn Val Gly Asp Leu Ser His Ala Leu
145                 150                 155                 160
Thr Pro Lys Ala Asn Gln Phe Asp Ala Pro Pro Pro Arg Ala Glu Ser
                165                 170                 175
Ser Ser Gln Asn Ala Ile Arg Pro Val Ala Ala Lys Arg Pro Pro Ser
            180                 185                 190
Asn Arg Ala Pro Asn Gln Arg Ser Pro Gln Lys Pro Ser Pro Leu Gly
        195                 200                 205
Ser Ser Pro Pro Glu Asn Ala Ser Asp Ser Gln Ser Arg Ser Arg Ser
    210                 215                 220
Ser Ser Gln Asn Asp Thr Ser Ser Ser Ser Ser Ser Pro Leu Ile Thr
225                 230                 235                 240
Gln Leu Thr Lys Pro Asn Lys Val Thr Pro Ser Thr Gly Ala Ile Lys
                245                 250                 255
Thr Asn Gly Val Thr Lys Thr Thr Glu Ser Val Asn Pro Leu Lys Arg
            260                 265                 270
Lys Ala Glu Thr Asp Arg Pro Ser Ala Asn Gln Ser Lys Thr Thr Gly
        275                 280                 285
Arg Thr Thr Gly Asn Leu Glu His Lys Arg Arg Arg Ala Val Ser Thr
    290                 295                 300
Cys Ser Gly Ser Thr Gly Ser Ala Ser Pro Pro Leu Ser Arg Glu Ile
305                 310                 315                 320
Leu Arg Gln Gln Leu Arg Glu Lys Ser Gln Lys Phe Lys Gln Tyr Tyr
                325                 330                 335
Ala Lys Tyr Arg Ala Val His Asp Ser Leu Ala Ser His Pro Asp Pro
            340                 345                 350
Pro Arg Gly Glu Leu Glu Arg Leu Pro Arg Gln His Ile Arg Leu Gln
        355                 360                 365
Arg Met Lys Lys Glu Ile Trp Asp Glu His Gly Arg Leu Arg Asp Gly
    370                 375                 380
Leu
385
```

<210> 38049
<211> 172
<212> PRT
<213> A.fumigatus

<400> 38049

```
Lys Ser Ile Ser Val Ser Pro Ser Gln Gln Cys Leu Gly Ser Ser Ser
1               5                  10                  15
Phe Pro Gln Ala Asn Lys Arg Asn Pro Gln Ile Ala Ser Asn Met Leu
            20                  25                  30
Asp Val Pro Asn Phe Phe Trp Glu Ser Glu Pro Thr Leu Tyr Pro Leu
        35                  40                  45
Tyr Asn Ala Val Arg Glu Tyr Leu Glu Ile Lys Pro Arg Ile Gln Val
    50                  55                  60
Leu Asn Glu Arg Cys Arg Val Phe Leu Asp Leu Ala Glu Ile Leu Ser
```

65 70 75 80
Asp Ser Ile Ala Asp Asn Arg Thr Ser Arg Val Ser Phe Pro Leu Leu
85 90 95
Thr His Leu Thr Asp Phe Leu Thr Asn Arg Leu His Gln Ile Lys Pro
100 105 110
Gly Ser Leu Ser Ser Ser Ser Leu Ser Pro Ser Leu Leu Gln Pro Pro
115 120 125
Arg Ser Ser Ser Ala Leu Val Cys Ser Arg Leu Ala Lys Arg Ile Pro
130 135 140
Leu Arg Leu Pro Leu Ala Pro Cys Phe Ser Leu Ala Leu Gln Ile Arg
145 150 155 160
Leu Ser Ala Arg Val Leu Arg Arg Val Arg Leu Thr
165 170

<210> 38050
<211> 515
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (345)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38050
Val Thr Asp Ser Arg Glu Gln Gln Pro Gln Pro Val Arg Arg Ala Ser
1 5 10 15
Gly Thr Arg Phe Ile Thr Val Asp Asn Val Leu Gln Tyr Ala Ser Asp
20 25 30
Val Pro Ser Met Gln Gln Arg Gly Pro Pro Ser Thr Thr Thr Gln Pro
35 40 45
Arg Pro Arg Ser Arg Leu Ala Ser Ala Ala Gly Gly Leu Ile Gly Ala
50 55 60
Gly Ser Ser Ala Gly Gly Ser Gly Pro Ile Gly Ser Gly Ser Arg Leu
65 70 75 80
Ala Asn Thr Ala Ala Thr Met Gly Arg Leu Ala Ala Gln Pro Arg Leu
85 90 95
Pro Pro Arg Thr Thr Lys Val Ser Glu Lys Leu Val Leu Leu Pro Glu
100 105 110
Ala Glu Gly Val Glu Gly Asn Leu Asn Glu Glu Glu Glu Glu Asp Glu
115 120 125
Val Asp Glu Glu Phe Val Gln Arg Leu Ala Lys Glu Arg Asn Leu Asp
130 135 140
Pro Asp Ser Leu Arg Gln Arg Leu Leu Thr Gln Lys Arg Leu Gly Gly
145 150 155 160
Asp Phe Gly Val Asp Asn Asp Ile Ala Pro Leu Leu Ala Glu Glu Glu
165 170 175
Leu Leu Arg Arg Arg Lys Val Ala Pro Glu Lys Ala Lys Thr Tyr Ala
180 185 190
Glu Arg Leu Pro Lys Ala Arg Arg Ala Glu Lys Leu Ala Arg Val Thr
195 200 205
Ala Tyr Cys Thr Ala Gln Ala Tyr Lys Met Ser Ser Leu Ala Ala Phe
210 215 220
Val Lys Asp Lys His Gly Gly Arg Thr Lys Leu Tyr Asp Asp Cys Leu
225 230 235 240
Tyr Thr Ala Tyr His Leu Pro Leu Leu Pro Gly Leu Glu Gly Tyr Arg

```
                245                 250                 255
Val Arg Ser Ser Pro Met Val Lys Lys Pro Gly Gly Lys Ser Leu Leu
            260                 265                 270
Asp Glu Glu Ile Glu Arg Asn Glu Leu Arg Asp His His Asp Asp Tyr
        275                 280                 285
Val Met Asp Ala Glu Glu His Ser Val Gly Gly His His Gln Arg His
    290                 295                 300
Ser Ser Leu His Asp Ala Ser Glu Ser Leu Val Leu Asp Gly Thr Leu
305                 310                 315                 320
Ile Asn Lys Phe Glu Glu Asp Leu His His Ser Glu Ser Asp Thr Val
                325                 330                 335
Lys Glu Gly Ser Arg Val Ser Val Xaa Gly His Arg Pro Ala Gln Gly
            340                 345                 350
Ser Pro Ala Ser Thr Glu Pro Ala Arg Leu Pro Tyr Asp Val Ala Glu
        355                 360                 365
Met Phe Val Phe Ser Tyr Gly Val Val Val Phe Trp Asn Leu Thr Glu
    370                 375                 380
Arg Gln Glu Lys Asp Leu Leu Ala Asp Leu Ala Phe Ala Asn Ser Ser
385                 390                 395                 400
Thr Thr Gly Ser Arg Ile Pro Leu Ala Thr Met Pro Leu Asp Glu Glu
                405                 410                 415
Asp Phe Glu Thr Glu Glu Phe His Phe Glu Tyr Ser Thr Glu Ile Ser
            420                 425                 430
Arg Pro Arg Val Phe Asn Asp Met Ile Thr Leu Arg Ser Gly Asp His
        435                 440                 445
Met Ile Lys Leu Ala Ile Ser His Gly Ile Ala Gln Ser Thr Lys Leu
    450                 455                 460
Cys Phe Phe Glu Glu Val Met Ala Arg Gln Met Ala Glu Ala Lys Asp
465                 470                 475                 480
Val Pro Arg Arg Leu Ala Met Thr Gly Lys Leu Gly Met Lys Arg Glu
                485                 490                 495
Glu Asp Leu Pro Tyr Pro Arg Gln Ala Phe Gln Lys Pro Arg Arg Ser
            500                 505                 510
Gln Ser Leu
        515
```

<210> 38051
<211> 142
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (56)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38051

```
Leu Asp Ser Thr Gln Ile Arg Glu Glu Arg Ala Ala Glu Tyr Glu Arg
1               5                  10                  15
Ala Leu Glu Glu His Arg Arg Gln Leu Glu Met Leu Arg Lys Glu Asn
            20                  25                  30
Gly Asp Ser Asp Glu Glu Thr Tyr Ser Ser Asn Gly Asp Val Asp Glu
        35                  40                  45
Gln Asp Glu Trp Glu Gly Phe Xaa Glu Leu Pro Ala Val Asp Tyr Val
    50                  55                  60
Ala Glu Tyr Ile Asp Glu Asp Lys Tyr Thr Thr Val Thr Val Glu Glu
```

```
65                  70                  75                  80
Met Asp Ala Ser Arg Glu Gly Leu Leu Arg Ala Ala Glu Gly Asp Lys
                85                  90                  95
Ser Asp Glu Asp Glu Asp Glu Arg Thr Lys Thr Lys Ile Gly Ser Arg
            100                 105                 110
Cys Gln Ile His Asn His Lys Phe Ser Arg Glu Glu Asn Glu Gly Glu
        115                 120                 125
Glu Gln Ala Lys Lys Glu Glu Lys Glu Val Pro Val Arg Lys
    130                 135                 140
```

<210> 38052
<211> 104
<212> PRT
<213> A.fumigatus

<400> 38052

```
Pro Asn Ile Ser Met Lys Thr Asn Ile Leu Pro Leu Leu Leu Lys Arg
1               5                   10                  15
Trp Met Arg Pro Glu Lys Ala Tyr Ser Gly Leu Arg Arg Ala Thr Ser
            20                  25                  30
Gln Thr Arg Met Arg Thr Ser Glu Arg Lys Arg Arg Ser Glu Ala Asp
        35                  40                  45
Val Lys Ser Thr Thr Thr Asn Ser Ala Glu Lys Lys Met Lys Glu Lys
    50                  55                  60
Ser Lys Pro Lys Lys Lys Lys Lys Lys Phe Arg Tyr Glu Ser Lys Glu
65                  70                  75                  80
Glu Arg Lys Val Thr Leu Met Lys Gln Arg Gln Ala Lys Ser Arg Lys
                85                  90                  95
Ala Lys Val Arg Arg Glu Arg Gly
            100
```

<210> 38053
<211> 146
<212> PRT
<213> A.fumigatus

<400> 38053

```
Asp Ala Tyr Arg Pro His Asn Asp Leu Glu Ser Glu Lys Leu Thr Phe
1               5                   10                  15
Ser Asn Ile Ile Val Glu Leu Pro Asp Ile Pro Asp Asp Ile Ala Tyr
            20                  25                  30
Asp Thr Thr Phe Pro Gln Phe Gln Pro Lys Asn Leu Ala Leu Gly Leu
        35                  40                  45
Glu Ser Val Tyr Gly Asp Asn Gln Val Gly Glu Asp Gly Leu Thr Lys
    50                  55                  60
Arg Gln Arg Lys Phe Gln Glu Asp Ser Ile Ala Phe Asp Lys Lys Val
65                  70                  75                  80
Asp Glu Met Ile Leu Lys Gln Leu Glu Glu Ile Gly Phe Glu Asp Lys
                85                  90                  95
Thr Glu Leu Asp Pro Pro Ser Glu Pro His Val Glu Glu Val Pro Lys
            100                 105                 110
Arg Arg Leu Glu Val Arg Arg Ala Lys Leu Thr Met Thr Lys Pro Lys
        115                 120                 125
Tyr Thr Ser Asn Ile Cys Leu His His Gly Ala Gly Arg Ala Ala Leu
    130                 135                 140
Thr Asn
```

145

<210> 38054
<211> 112
<212> PRT
<213> A.fumigatus

<400> 38054
Arg Met Asn Ala Leu Arg Leu Glu Ala Asp Glu Ala Gln Asn Lys Val
1 5 10 15
Glu Glu Leu Lys Ala Lys Val Lys Thr Leu Glu Gln Glu Asn Leu Ala
20 25 30
Lys Glu Gln Glu Ile Thr Ser Leu Asn His Arg Asn Gln Leu Leu Glu
35 40 45
Gly Glu Val Glu Lys Leu Glu Ala Ala Leu Lys Glu Ala Lys Glu Ser
50 55 60
Ala Asn Gln Ser Ala Gln His Asp Thr Gln Asn Glu Ala Leu Gln Arg
65 70 75 80
Arg Val Gln Leu Leu Glu Glu Glu Ala Glu Glu Ala Asp Arg Asn Leu
85 90 95
Arg Glu Thr Asn Glu Lys Tyr Asp Ser Ala Cys Ser Val His Ile Pro
100 105 110

<210> 38055
<211> 117
<212> PRT
<213> A.fumigatus

<400> 38055
Gln Ala Pro Ser Ser Ile Leu Ala Thr Ser Ser Asn Ile Lys Ala Ala
1 5 10 15
Thr Ser Val Leu Glu Asp Leu Ser Ser Gln Leu Ser Thr Cys Pro Ser
20 25 30
Asp Tyr Tyr Val Ile Ala Ser Gln Pro Gly Val His Ser Ser Asp Phe
35 40 45
Ala Thr Arg Lys Ser Ala Pro Arg Leu Gly Ala Lys Leu Thr Gly Asn
50 55 60
Asp Lys Ala Ile Arg Ser Ser Met Ile Val Lys Glu Val Ala Gly Val
65 70 75 80
Leu Glu Ala Lys Gln Ile Gln Ser Ile Ile Glu Lys Glu Cys Gly Ala
85 90 95
Arg Ser Thr Leu Ile Asp Ala Ser Gly Glu Phe Glu Arg Leu Ile Ser
100 105 110
Phe Arg Ser Arg Asp
115

<210> 38056
<211> 106
<212> PRT
<213> A.fumigatus

<400> 38056
His Arg Met Phe Val Leu Thr Asp Asp Lys Asp Gly Leu Leu Ala Asn
1 5 10 15
Ile Ile Asp Arg Ile Pro Ser Ser Lys Lys Tyr Thr Leu Leu Tyr Val
20 25 30

```
Thr Ser Pro Arg Glu Phe Glu Gly Ser Glu Gly Val Val Tyr Lys Ala
        35                  40                  45
Glu Asp Ser Tyr Gln Asp Pro Leu Arg Met Glu Leu Lys Arg Asp Tyr
    50                  55                  60
Ser Ala His Glu Ser Gln Ser Thr Pro Ala Ser Asn Lys Ser Leu Phe
65                  70                  75                  80
Arg Glu Tyr Gln Tyr Leu Thr Pro Gly Thr Ile Ser Glu Gly Phe Leu
                85                  90                  95
Gln Cys Pro Asn Val Val Thr Asp His Phe
            100                 105
```

<210> 38057
<211> 77
<212> PRT
<213> A.fumigatus

<400> 38057
```
Ser Leu Gly Leu Pro Asp Asp Leu Gln Cys Thr Thr Val Gln Tyr Gln
1               5                   10                  15
Ser Val Phe Ala Met Arg Pro Ile His Leu Phe Tyr Ser Ile Ala Leu
            20                  25                  30
Ala Ser Asn Gly His Glu Pro Asp Thr Ile Leu Tyr Ser Leu Leu Asp
        35                  40                  45
Thr Leu His Gly Leu Leu Leu Ile Arg Pro Ser Thr Asp Glu Ser Phe
    50                  55                  60
Pro Thr Val Gln Gly Thr Leu Ile Ser Phe Ser Ser Cys
65                  70                  75
```

<210> 38058
<211> 78
<212> PRT
<213> A.fumigatus

<400> 38058
```
Val Leu Leu Phe Arg Pro Val Trp His Leu Ser Pro Leu Leu Thr Leu
1               5                   10                  15
Leu Ala Glu Lys Val Ser Met Gln Asp Phe Tyr Arg Val Pro Leu Lys
            20                  25                  30
Gln Pro Ser Leu Pro Ser Phe Pro Tyr Tyr Phe Leu Leu Leu Leu Arg
        35                  40                  45
Ser Asn Gly Gly Ser Ser Gly Asn Arg Ala Glu Ala His Leu Lys Pro
    50                  55                  60
Val Thr Ser Arg His Gln Gln Val Ile Arg Gln Asp Gly Arg
65                  70                  75
```

<210> 38059
<211> 94
<212> PRT
<213> A.fumigatus

<400> 38059
```
Gly Lys Leu Ala Ala Met Gln Gln Pro Lys Asp Thr Asp Pro Asn Phe
1               5                   10                  15
Pro Val Asp Gly Gly Gly Cys Arg Pro Gln Gly Glu Thr His Ile Glu
            20                  25                  30
Thr Gln Arg Ser Val Asp Pro Asn Met Ser Ile Glu Asp Tyr Asn Arg
```

```
        35                  40                  45
Val Met Leu Gln Tyr Thr Gln Arg Arg Met Ser Thr Phe Leu Asp Met
    50                  55                  60
Gly Asn Asp Gly Gly Pro Pro Pro Ser Arg Asn Gly Arg Ser Ser Asp
65                  70                  75                  80
Ser Val Ala Thr Leu Ser Lys Arg Val Phe Leu Tyr His Tyr
                85                  90
```

<210> 38060
<211> 105
<212> PRT
<213> A.fumigatus

<400> 38060

```
Pro Ile Arg Arg Phe Thr Leu Val Phe Pro Ser Phe Glu Thr Arg Leu
1               5                   10                  15
Arg Thr Ile Val Tyr Phe Pro Ala Ser Thr Lys Gln His Gly Leu Gln
            20                  25                  30
Gln His Arg Asn Arg Gln Arg Ala Asn Tyr Asp Phe Asp Thr Arg Ile
        35                  40                  45
Lys Ala Thr Ile Asn Lys Asn Ala Ser Tyr Asn Tyr Pro Leu His Pro
    50                  55                  60
Arg Tyr Thr Leu Asn His Thr Gly Arg Pro Ile Leu Pro Gly Ile Gln
65                  70                  75                  80
Ile Asn Gln Arg Ile Lys Ile Asp Leu Phe Phe Asn Ser Ala Gly Lys
                85                  90                  95
Ser Thr Leu Ala Asn Thr Gln Arg Thr
            100                 105
```

<210> 38061
<211> 485
<212> PRT
<213> A.fumigatus

<400> 38061

```
Val Leu Asn Ser Asp Gln Gly His Ser Tyr Leu Arg Leu Asn Val Met
1               5                   10                  15
Ile Ile Phe Arg Tyr Ile Asp Tyr Leu Gly Cys Gln Gly Val Asn Leu
            20                  25                  30
Thr Arg Ala Asn Asn Tyr Tyr Ala Arg Tyr Thr Thr Ser Thr Ile Cys
        35                  40                  45
Ser Gly Leu Val Gln Ser Ser Lys Thr His Cys Asn Leu Ser Asp Gln
    50                  55                  60
Gln Ser Arg Pro Leu Cys Ala Asp Thr Cys Ala Leu Met Ala Thr Ser
65                  70                  75                  80
Glu Ala Glu Ile Val Val Asn Ala Asp Leu Cys Arg Thr Thr Gly Ser
                85                  90                  95
Asn Tyr Met Ser Gln Ile Arg Ser Asp Phe Thr Ile Cys Ser Leu Pro
            100                 105                 110
Ala Asp Ser Leu Thr Gly Thr Cys Ile Ser Gly Ala Asp Asn Glu Pro
        115                 120                 125
Gln Glu Cys Gly Tyr Arg Ser Asn Leu Ile Gly Leu Cys Gly Tyr Cys
    130                 135                 140
Gly Ala Ser Ser Pro Asn Ser Thr Asp Ser Cys Cys Val Asn Ala Asp
145                 150                 155                 160
Ala Ala Ser Arg Cys Glu Gly Val Thr Ile Pro Thr Pro Thr Val Thr
```

```
                165                 170                 175
Leu Arg Pro Ile Phe Thr Ser Thr Ser Asn Leu Thr Ala Asp Ala Gly
            180                 185                 190
Ala His Asp Gly Leu Ser Gly Gly Gln Ile Ala Gly Ile Val Ile Gly
        195                 200                 205
Ser Val Ala Gly Ala Ala Leu Leu Ala Ala Leu Ile Phe Leu Val Leu
    210                 215                 220
Phe Cys Val Arg Arg Arg Arg Gln Ser Arg Asp Tyr Ser Ala Leu Asn
225                 230                 235                 240
Lys Pro Asn Pro Gln Arg Arg Gly Ile Pro Ala Met Gln Gln Asp Lys
                245                 250                 255
Asn Gln Gln Gly Leu Pro Ser Val Pro Gly Gly Arg Val Ala Arg Met
            260                 265                 270
Ser Ala Leu Arg Glu Val Pro Ser Leu Ser Pro Thr Arg Ser Arg Asn
        275                 280                 285
Ser Ala Ala Arg Phe Gly Ser Thr Lys His Ser Asp Thr Ser Asp Ser
    290                 295                 300
Glu Gly Tyr Gly Ala Ser Pro Gly Ala Met Ser Lys Arg Ile Pro Pro
305                 310                 315                 320
Val Thr Gly Arg Arg His Gly Ser Leu Ser Ser Asn Ser Ala Leu Ala
                325                 330                 335
Gly Ala Tyr Ser Asp Thr Ser Pro Arg Ser Gly Thr Val Gly Gln Phe
            340                 345                 350
Ser Ser Pro Glu Gly Val Ala Ser Gly Gln Ser Glu Gln Leu Ser Ser
        355                 360                 365
Phe Gln Asp Tyr Tyr Ser Ser Asp Asp Ile His Pro Gly Asp Lys Val
    370                 375                 380
Ala Val Leu Trp Ala Tyr Gln Pro Arg Ala Gly Asp Glu Phe Ala Leu
385                 390                 395                 400
Glu Arg Gly Glu Met Leu Lys Val Ile Gly Ile Trp Asp Asp Gly Trp
                405                 410                 415
Ala Thr Gly Ile Arg Val Pro Glu Thr Ala Glu Asp Tyr Asp Ala Arg
            420                 425                 430
His Arg Lys Gln Arg Asp Ser Gly Val Ser Asn Gly Ser Gln Arg Leu
        435                 440                 445
Ala Ala Ser Pro Ser Pro Thr Gly Asp Ile Lys Ala Phe Pro Leu Val
    450                 455                 460
Cys Val Cys Leu Pro Gln His Trp Arg Lys Ile Ile Glu Gly Gly Gln
465                 470                 475                 480
Asp Glu Asp Phe Ser
                485
```

<210> 38062
<211> 79
<212> PRT
<213> A.fumigatus

<400> 38062

```
Trp Ser Leu Phe Asn Tyr Leu Ser Arg Thr Phe Glu Ala Lys Val Thr
1               5                   10                  15
Gly Asn Ala Gln Glu Lys Tyr Leu Ser Tyr Cys Ala Val Pro Asp Tyr
            20                  25                  30
Leu Ser Thr Tyr Trp Leu Ser Gly Arg Tyr Pro Leu Leu Leu Phe Phe
        35                  40                  45
Phe Cys Thr Ala Pro Gly Cys Arg Leu Pro Ser Ala Gly Cys Glu Ser
    50                  55                  60
```

Val Ile Ile Glu Ser Thr Trp Gly Ser Arg Pro Tyr Phe Asp Pro
65 70 75

<210> 38063
<211> 282
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (29),(44),(57),(113)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38063
Phe Lys Gly Pro Lys Arg Thr Lys Thr Asn Ser Ala Arg Met Ser Asn
1 5 10 15
Ser Pro Leu Leu Lys Cys Ser Lys Ile Leu Pro Arg Xaa Val Asn Glu
20 25 30
Gln Ala Leu Pro Ser Lys Phe Gln Phe His Gln Xaa Phe Ile Trp Gly
35 40 45
Leu Phe Val Ala Gly Ser Trp Leu Xaa Tyr Ser Leu Phe Phe Gln Pro
50 55 60
Tyr Asp Leu Gly Ser Lys Tyr Ser Tyr Ala Val Thr Phe Leu Met Leu
65 70 75 80
Ile Ile Ile Ser Tyr Gly Gly Met Met Phe Ala Ser Ser Tyr Val Lys
85 90 95
Lys Glu Gln Gln Phe Trp Tyr Trp Val Val Thr Ala Trp Thr Val Tyr
100 105 110
Xaa His Ile Lys Ser Leu Arg Pro Trp His Gly Ser Lys Asp Thr Arg
115 120 125
Phe Ser Phe Ser Pro Phe Ala Arg Cys Met Thr Val Gly Leu Ala Ile
130 135 140
Ser Tyr Arg Ile Leu Arg Arg Trp Asn Gln Thr Gly Gln Lys Phe Ala
145 150 155 160
Ala Glu Pro Asp Ile Ala Arg Asp Phe Phe Pro Arg His Gln Asn Ile
165 170 175
Leu Trp Ala Leu Ile Ile Leu Thr Tyr Phe Asp Thr Cys Met His Leu
180 185 190
Cys Leu Asn Ser His Ser Ser Asn Ile Trp Arg Ser Ala Ala Ile Leu
195 200 205
Thr Thr Ile Ala Ala Phe Phe Phe Lys Leu Val Phe Val Ala Ser Asp
210 215 220
Ser Pro Glu Leu Leu Tyr Glu Ser Leu Leu Ser Pro Ile Gln Lys Ser
225 230 235 240
Leu Glu Glu Met Pro Leu Val Leu Pro Ala Arg Leu Val Phe Cys Gly
245 250 255
Ile Ala Leu Leu Val Val Thr Ser Phe Cys Met Ile Asn Ala Thr Gln
260 265 270
Lys Arg Ser Ser Leu Thr Gly Gly Glu Cys
275 280

<210> 38064
<211> 200
<212> PRT
<213> A.fumigatus

<400> 38064
Gln Thr Leu Val Ile Pro Pro Gly Asn Ile Phe His Glu Ser Leu Thr
1 5 10 15
Leu Phe Leu Ile Thr Gln Ser Lys Ala Val Asn Ile Pro Ile Phe Leu
20 25 30
Met Phe Arg Leu Gln Ala Ile Ile Leu Asp Phe Leu Lys Met Ser Ala
35 40 45
Ile Glu Val Thr Leu Thr Ser Leu Leu Ser Gln Asn Met Thr Phe Phe
50 55 60
Ala Phe Gly Gly Ser Asn Ala Ile Ser Ser Val Asp Leu Ser Asn Ala
65 70 75 80
Tyr Asn Gly Ile Gly Ser Tyr Ser Val Val Leu Val Gly Val Leu Thr
85 90 95
Phe Ile Ser Asn Trp Ala Gly Pro Ile Trp Trp Ala Ser Ala Ala Arg
100 105 110
Leu Leu Tyr Ser Asn Pro Thr Phe Ala Glu Arg Tyr Gly Gln Arg Thr
115 120 125
Leu Leu Thr Phe His Ala Ala Thr Ser Leu Met Ser Val Met Ala Ala
130 135 140
Cys Thr Met Leu Arg Thr His Leu Phe Ile Trp Thr Val Phe Ser Pro
145 150 155 160
Lys Tyr Leu Tyr Thr Leu Ala Trp Thr Ile Leu Asn His Met Phe Ile
165 170 175
Asn Leu Pro Ala Thr Ala Asn Val Ser Gln Val Leu Asn Trp Gln Tyr
180 185 190
Ala Phe His Ser Val Ala Cys Arg
195 200

<210> 38065
<211> 108
<212> PRT
<213> A.fumigatus

<400> 38065
Asp His Asp Phe Ser Gly Ala Gly Gly Val Leu Val Val Pro Tyr Leu
1 5 10 15
Ala Ser Ser Ser Lys Asn Ala Lys Lys Thr Ala Pro Val Tyr Lys Gly
20 25 30
Tyr Leu Asn His Gly Val Gly Leu Phe Leu Phe Ile Ile Ile Leu Phe
35 40 45
Thr Asn Thr Ile Phe Leu Ser Val Leu Phe His Leu Val Ile Leu Phe
50 55 60
Pro Cys Leu Phe Ala Cys Leu His Ala Leu Pro Leu Ile Leu Tyr Leu
65 70 75 80
Thr Thr Pro Val Pro Ser Ile Phe Ser Leu Asn Asn Gly Phe Glu Gln
85 90 95
Pro Val Ile Val Cys Ser Ala Gln Glu Leu Pro Ser
100 105

<210> 38066
<211> 205
<212> PRT
<213> A.fumigatus

<400> 38066
Leu Gly Ile Ser Asn Gly Val Tyr Thr Ala Ala Gly Ser Gln Ala Leu

```
1               5                   10                  15
Phe Asp Thr Ala Gly Ala Ser Trp Cys Gly Ala Gly Cys Gly Lys Cys
            20                  25                  30
Tyr Asn Leu Thr Ser Thr Gly Ser Ala Pro Cys Thr Gly Cys Gly Thr
        35                  40                  45
Gly Gly Ala Ala Gly Glu Ser Ile Ile Val Met Val Thr Asn Leu Cys
    50                  55                  60
Pro Tyr Asn Gly Asn Gln Gln Trp Cys Pro Gln Val Gly Ala Thr Asn
65                  70                  75                  80
Asn Tyr Gly Tyr Ser Tyr His Phe Asp Ile Met Ala Gln Ser Glu Val
                85                  90                  95
Phe Gly Asp Asn Val Val Val Asn Phe Glu Pro Val Ala Cys Pro Gly
            100                 105                 110
Gln Ala Thr Ser Asp Trp Glu Thr Cys Val Cys Tyr Gly Gln Thr Glu
        115                 120                 125
Thr Asp Glu Thr Pro Val Gly Met Thr Pro Gly Gly Ser Asn Pro Ser
    130                 135                 140
Pro Leu Thr Ser Thr Thr Thr Thr Lys Thr Thr Thr Thr Glu Thr Thr
145                 150                 155                 160
Thr Thr Thr Thr Thr Gly Gly Ala Thr Gln Thr Leu Tyr Gly Gln Cys
                165                 170                 175
Gly Gly Ser Gly Trp Thr Gly Pro Thr Ala Cys Ala Ser Gly Ala Thr
            180                 185                 190
Cys Lys Val Leu Asn Pro Tyr Tyr Ser Gln Val Leu Ser
        195                 200                 205
```

<210> 38067
<211> 212
<212> PRT
<213> A.fumigatus

<400> 38067

```
Ser Ser Cys Pro Ser Cys Gly Arg Val Glu Asn Gly Gln Ile Leu Ala
1               5                   10                  15
Leu Leu Met Asn Lys Asn Ser Thr Thr Leu Tyr Ser Leu Asn Gly Val
            20                  25                  30
Thr Tyr Asp Thr Leu Lys Asp Trp Ile Ile Ser Gly Val Gln Glu Tyr
        35                  40                  45
Tyr Ser Thr Leu Gln Thr Thr Trp Pro Asp Leu Thr Pro Phe His Gln
    50                  55                  60
Ala Gly Gly Lys Val Ile His Tyr His Gly Asp Ala Asp Phe Ser Ile
65                  70                  75                  80
Pro Thr Ala Ser Ser Ile Arg Tyr Trp Glu Ser Val Arg Ser Thr Met
                85                  90                  95
Tyr Gly Asn Leu Ser Tyr Lys Ala Gly Ala Asn Ala Leu Asn Glu Trp
            100                 105                 110
Tyr Arg Leu Tyr Thr Val Pro Gly Ala Gly His Cys Ser Thr Asn Asp
        115                 120                 125
Ala Met Pro Asn Gly Pro Trp Ala Gln Thr Asn Leu Ala Thr Met Ile
    130                 135                 140
Glu Trp Val Glu Lys Gly Val Thr Pro Val Thr Leu Asn Ala Thr Val
145                 150                 155                 160
Leu Gln Gly Glu Tyr Glu Gly Glu Thr Gln Gln Leu Cys Ala Trp Pro
                165                 170                 175
Leu Arg Pro Leu Trp Lys Asn Lys Gly Lys Thr Leu His Cys Val Tyr
            180                 185                 190
```

```
Asp Gln Ala Ser Ile Asn Ser Trp His Tyr Asp Leu Asp Ala Val Pro
        195                 200                 205
Met Pro Val Tyr
    210
```

<210> 38068
<211> 153
<212> PRT
<213> A.fumigatus

<400> 38068

```
Arg Thr Asn His Ile Ile Thr Ala Pro Asn Ser Ser Leu Ala Asp Thr
1               5                  10                  15
Phe Leu Lys Pro Pro Arg Ser Val Ile Pro Gly Leu Ser Thr Arg Arg
            20                  25                  30
Arg Leu Asp Glu Tyr Asn Lys Val Thr Ser His Leu Lys His Glu Thr
        35                  40                  45
Gln Thr Ser Ile Lys Ala Asp Arg Ser Asp Arg Lys Ile Leu Ser Arg
    50                  55                  60
Ser Cys His Phe Thr Ile Phe Ile Phe Asp Thr Met Pro Ala Lys Pro
65                  70                  75                  80
Ile Leu Ala Leu Ala Leu Ile Ala Ala Val Ser Ala Ala Lys Pro Thr
                85                  90                  95
Val Tyr Leu Ile Arg His Gly Glu Lys Pro Ser Asp Gly Gly Asn Gly
            100                 105                 110
Leu Ser Ala Gln Gly Leu Glu Arg Ala Gln Cys Leu Arg Asn Val Phe
        115                 120                 125
Gly Ser Ala Ser Ser Tyr Asn Ile Gly Tyr Ile Met Ala Gln Thr Pro
    130                 135                 140
Lys Arg Ser Met Met Thr Val Phe Phe
145                 150
```

<210> 38069
<211> 123
<212> PRT
<213> A.fumigatus

<400> 38069

```
Tyr Ile His Pro Asp Gly Lys Arg Ala Arg Pro Tyr Glu Thr Val Glu
1               5                  10                  15
Pro Leu Ala Glu Asp Leu Gly Leu Thr Val Asp Thr Ser Cys Asp Arg
            20                  25                  30
Asp Asp Pro Lys Cys Val Arg Asp Val Val Glu Gly Tyr Thr Gly Ser
        35                  40                  45
Gly Asn Ile Leu Ile Cys Trp Glu His Asp Ala Leu Thr Glu Ile Val
    50                  55                  60
Asp Lys Leu Gly Asp Asp Asp Ala Pro Ser Tyr Pro Asp Asp Arg Ser
65                  70                  75                  80
Val Val Phe Lys Tyr Lys Leu Thr Ile Pro Trp Leu Asn Asn Leu Arg
                85                  90                  95
Phe Asp Leu Ile Trp Thr Asp Pro Tyr Pro Tyr Ser Glu Ile Thr Ala
            100                 105                 110
Gln Thr Ser Glu Gln Cys Pro Gly Leu Asp Gly
        115                 120
```

<210> 38070

<211> 196
<212> PRT
<213> A.fumigatus

<400> 38070
Asn Pro His Ser Arg His Thr Arg Val Arg Thr Thr Thr Ser Arg Arg
1 5 10 15
Arg Thr Met Lys Met Asp Ser Val Leu Val His Ala Tyr Glu Gln Glu
20 25 30
Ala Asn Asp Ala Asp Gly Val Asp Gln Val Arg Asp Glu Tyr Ser Gly
35 40 45
Ser Met Ala Gly Val Lys Ser Thr Tyr Ala Pro Asn Met Arg Val Ala
50 55 60
Ser Asn Glu Lys Ser Gly Asn Arg Ala Leu Ala Lys Asp Ile Ala Val
65 70 75 80
Gly Met Arg Leu Pro Ser Phe Pro Val Val Asn Gln Ala Asp Gly Ser
85 90 95
Thr Ile Ser Leu Leu Asn Leu Met Ser Ser Gly Gly Cys Trp Arg Leu
100 105 110
Ile Val Phe Ser Gly Asp Leu Arg Arg Pro Arg Val Cys Glu Arg Leu
115 120 125
Thr Ser Phe Ala Glu Ser Phe Thr Gln His Ser His Leu Ala His Gln
130 135 140
Gln Gln Thr Glu Ser Pro Gln Arg Arg Gly Pro Pro Leu Gln Thr Leu
145 150 155 160
Leu Val His Ala Asn Pro Arg Met Ser Ile Ser Leu Leu Asn Leu Pro
165 170 175
Ile Ile Phe His Pro Ser Asp Gly Glu Leu Gly Arg Asp Tyr Trp Lys
180 185 190
Thr Cys Arg Arg
195

<210> 38071
<211> 134
<212> PRT
<213> A.fumigatus

<400> 38071
Gln Pro Arg Arg Glu Asn His Arg His Ser Leu Glu Leu Gly Gly Gly
1 5 10 15
Cys Ala Lys Gly Ala Ala Arg Ala Gly Arg Tyr Pro His Pro Arg Arg
20 25 30
Pro Asp Glu Pro Ala Pro Ala Ala Gly Asp Arg Leu Val Arg Gly Leu
35 40 45
Ser Arg Gly Glu Gly Arg His Ala Val Ala Arg Glu Ala Ser Ser Gly
50 55 60
Gly Pro Gly Asp Gly Arg Ala His Leu Arg Leu Ala Cys Leu Gly Ser
65 70 75 80
Pro Ala Val Pro Pro Gly Gly Thr Ala Pro Asp Ile Leu Leu Ala Pro
85 90 95
Leu Pro Pro Arg Arg Arg Met Glu His Leu Pro Leu Pro Pro Arg Pro
100 105 110
Ile Pro Asp Val Pro Arg Arg Gly Gly Asn Pro Thr Pro Pro Ala Ser
115 120 125
His Pro Arg Pro Pro Gln
130

<210> 38072
<211> 652
<212> PRT
<213> A.fumigatus

<400> 38072
Ile Asp Thr Leu Arg Ser Met Met Lys Lys Leu Leu Val Ala Asn Arg
1 5 10 15
Gly Glu Ile Ala Val Arg Ile Leu His Ala Ala Arg Glu Leu Ser Pro
20 25 30
Pro Val Gln Thr Val Ala Leu Ser Thr Pro Asn Asp Thr Ser His Cys
35 40 45
Leu Leu Gly His Pro Asp Gln Thr Ile Ala Leu Pro Ser Ala Ala Ser
50 55 60
Tyr Leu Asp Ile Ser Leu Leu Ala Gln Ile Cys Gln Lys His Ala Ile
65 70 75 80
Asp Ala Val His Pro Gly Tyr Gly Phe Leu Ser Glu Ser Pro Glu Phe
85 90 95
Ala Arg Arg Met His Gln Ile Gly Val Thr Val Ile Gly Pro Gly Ala
100 105 110
Glu Ile Leu Glu Gln Thr Gly Asp Lys Leu Gln Ala Lys Ala Leu Ala
115 120 125
Thr Ser Cys Ser Val Pro Val Leu Pro Ser His Ser Ala Gln Ser Leu
130 135 140
Asp Glu Ile Arg Ala Phe Val Glu Lys Val Gly Tyr Pro Val Met Ile
145 150 155 160
Lys Ala Val Asp Gly Gly Gly Gly Arg Gly Ile Arg Leu Ile His Gln
165 170 175
His Gln Ala Ser Glu Leu Gly Ser Leu Val Ala Arg Ala Arg Ser Glu
180 185 190
Ser Pro Ser Gln Thr Val Phe Val Glu Lys Ala Ala Val Asp Gly Phe
195 200 205
His His Val Glu Val Gln Val Leu Gly Asp Gly Thr Gly Thr Val His
210 215 220
His Leu His Glu Arg Asp Cys Ser Val Gln Arg Arg Phe Gln Lys Ile
225 230 235 240
Val Glu Cys Ala Pro Ser Leu Leu Asp Arg Ser Ile Ile Glu Lys Val
245 250 255
Ser Glu Ala Ala Leu Arg Ile Ala Arg Thr Ile Arg Tyr Arg Ser Leu
260 265 270
Gly Thr Phe Glu Phe Leu Val Ser Glu Ser Thr Ser Asp Phe Tyr Phe
275 280 285
Leu Glu Ile Asn Pro Arg Leu Gln Val Glu His Thr Val Thr Glu Ala
290 295 300
Val Thr Gly Val Asp Leu Val Gln Ala Gln Leu Arg Leu Ala Arg Gly
305 310 315 320
Glu Ser Leu Gln Gln Ile Leu Ala Glu Cys Ala Pro Thr Pro Ser Ala
325 330 335
Arg Ser Ile Gln Leu Arg Leu Cys Ala Glu Asp Pro Ser Ala Asn Phe
340 345 350
Ala Leu Ser Ile Gly Lys Ile Thr Asp Phe Phe Val Pro Ser Gly His
355 360 365
Gly Val Arg Val Asp Thr His Leu Ser Pro Pro Val Thr Val Ala Ser
370 375 380
Asp Phe Asp Asn Leu Val Ala Lys Ile Ile Val Thr Ala Ser Ser Trp

385 390 395 400
Glu Ala Ala Val Arg Lys Ala Arg Arg Val Leu Gly Gly Thr Arg Ile
405 410 415
Gln Gly Val Pro Thr Asn Leu Pro Leu Leu Arg Gly Ile Val Ser Ser
420 425 430
Ala Asp Phe Leu Ala Gly Arg Val Asp Thr Gln Trp Leu Glu Lys His
435 440 445
Leu Pro Ala Val Leu Gly Met Gly Glu Arg Ile Ser Ala Ser Leu Ala
450 455 460
Ser Val His Gln Pro Ser His Arg Ala Val Gln Leu Pro Thr Ser Ser
465 470 475 480
Leu Leu Leu Phe Arg Arg Gly Asp Ala Trp Ser Ile Ser Leu Ser Pro
485 490 495
Leu Gly Pro Ser Arg Thr Ser Gln Glu Glu Ala Glu Thr Arg His His
500 505 510
Leu Arg Leu Thr Arg Val Leu Arg Asn Asp Phe Pro Ser Ser Leu Thr
515 520 525
Ala Glu Ile Glu Tyr Thr Thr Pro Ser Ala Ser Ile Pro Tyr Thr Leu
530 535 540
His Leu Ala Ala Ala Gly Ala Asn Thr Ala Ala Ser Ala Leu Val Ser
545 550 555 560
Gly His Arg Arg Gly Asp Pro Ser Asn Pro Arg His Ile Val Leu Pro
565 570 575
Leu Ser Gly Lys Leu Ile Glu Val Leu Val Gln Pro Gly Glu Thr Ile
580 585 590
Ala Gln Asp Gln Val Val Ala Phe Val Lys Gln Met Lys Met Glu Leu
595 600 605
Glu Val Arg Ser Pro Arg Ala Gly His Val Thr Trp Val Phe Glu Gly
610 615 620
Ser Asp Gly Glu Glu Asp Val Val Glu Gly Met Leu Leu Val Glu Leu
625 630 635 640
Asp Pro Val Pro Ala Ser Val Thr Lys Gly Lys Leu
645 650

<210> 38073
<211> 200
<212> PRT
<213> A.fumigatus

<400> 38073
Pro Ser Pro Pro Thr Leu Thr Thr Ser Ser Arg Lys Ser Ser Ser Gln
1 5 10 15
Pro Arg Ala Gly Arg Arg Leu Cys Glu Arg Arg Gly Ala Cys Trp Ala
20 25 30
Val Pro Ala Ser Lys Ala Ser Arg Arg Thr Cys Pro Cys Cys Gly Gly
35 40 45
Ser Ser Arg Pro Arg Thr Phe Ser Arg Gly Gly Ser Thr Arg Ser Gly
50 55 60
Ser Arg Ser Ile Phe Arg Arg Ser Trp Gly Trp Ala Ser Ala Ser Pro
65 70 75 80
Pro Arg Leu Pro Arg Phe Thr Ser Arg Pro Thr Gly Arg Tyr Ser Ser
85 90 95
Arg His Pro Pro Cys Ser Ser Ser Ala Ala Ala Thr His Gly Ala Ser
100 105 110
Pro Ser Pro Pro Ser Ala His Pro Gly Arg Pro Lys Lys Arg Arg Lys
115 120 125

```
Pro Asp Thr Thr Cys Val Ser Pro Ala Ser Ser Ala Met Thr Phe Pro
    130                 135                 140
Pro Arg Ser Pro Pro Arg Ser Ser Ile Pro Arg His Arg Arg Pro Phe
145                 150                 155                 160
His Thr His Ser Thr Trp Gln Pro Pro Ala Pro Thr Pro Pro Pro Ala
                165                 170                 175
Pro Ser Ser Arg Ala Ile Ala Ala Ala Thr Arg Pro Thr Arg Gly Ile
            180                 185                 190
Leu Cys Ser Arg Cys Arg Gly Ser
        195                 200
```

<210> 38074
<211> 142
<212> PRT
<213> A.fumigatus

```
<400> 38074
Lys Thr Lys Lys Pro Pro Gly Val Ser Ile Asn Ser Pro Pro Thr Cys
1               5                   10                  15
Arg Pro Pro Gly Tyr His Gln Thr Thr Pro Thr Ser Cys Pro Pro Ser
            20                  25                  30
Ala Pro Ser Arg Lys Ser Pro Gln Pro Pro Thr Pro Leu Ala Ala Ala
        35                  40                  45
Thr His Ala Arg Asn Lys Gln Ala Ser Ser Gly Ser Ala Ser Ala Ser
    50                  55                  60
Pro Ser Ser Ser Thr Pro Thr Arg Ser Lys Arg Ser Ala Pro Cys Leu
65                  70                  75                  80
Ala Pro Ser Pro Gly Asn Pro Pro Val Pro Arg Pro Lys Ser Pro Ser
                85                  90                  95
Pro Ser Arg Pro Ala Thr Met Ser Arg Ala Ser Gly Ser Ser Thr Ala
            100                 105                 110
Asp Ala Ser Ser Ser Gln Pro Thr Thr Leu Ala Ser Ala Ala Ala Thr
        115                 120                 125
Pro Thr Ala Pro Arg Pro Thr Arg Pro Ser Thr Pro Arg Ser
    130                 135                 140
```

<210> 38075
<211> 211
<212> PRT
<213> A.fumigatus

```
<400> 38075
Ile Gly Leu Gly Ala Ala Arg Val Val Ser Cys His Phe Ser Val Met
1               5                   10                  15
Ala Ala Asp Ile Gly Ala Leu Phe Asn Ala Gly Pro Glu Val Val Ala
            20                  25                  30
Asn Ala Thr Phe Glu Glu Gly Leu Asp Phe Gln Asp Leu Gly Gly Pro
        35                  40                  45
Met Val His Cys Thr Asn Gly Thr Ile Asp Asn Leu Ala Ala Asn Glu
    50                  55                  60
Ala Glu Cys Phe Glu Gln Leu Arg Thr Val Leu Gly Phe Leu Pro Asn
65                  70                  75                  80
His Gly Gly Glu Ala Pro Pro Val Val Lys Cys Glu Asp Pro Val Glu
                85                  90                  95
Arg Glu Asp Val Gly Leu Arg Ser Val Ile Pro Arg Arg Ala Ala Arg
            100                 105                 110
```

```
Met Tyr Asn Pro Tyr Thr Ile Ile Arg Ser Val Val Asp Ala Gly Ser
        115                 120                 125
Trp Phe Glu Ile Gly Gly Leu Trp Gly Arg Thr Ala Ile Gly Gly Leu
    130                 135                 140
Ala Arg Leu Gly Gly Arg Pro Val Gly Ile Ile Ala Asn Asn Cys Glu
145                 150                 155                 160
Val Asn Gly Gly Ala Leu Asp Ala Ala Gly Ser Gln Lys Leu Ala Arg
                165                 170                 175
Leu Leu Lys Leu Cys Asp Val Met Asn Leu Pro Val Val Gln Phe Val
            180                 185                 190
Asp Val Arg Met Ser Trp Ser Phe Pro Phe Pro Leu Ala Thr Val Arg
        195                 200                 205
Lys Val Cys
    210
```

<210> 38076
<211> 119
<212> PRT
<213> A.fumigatus

```
<400> 38076
Asp Ala Gly Gly Val Gly Phe Pro Pro Leu Leu Gly Thr Ser Gly Met
1               5                   10                  15
Gly Arg Gly Gly Arg Gly Arg Cys Ser Met Arg Arg Arg Gly Gly Arg
            20                  25                  30
Gly Ala Arg Arg Met Ser Gly Ala Val Pro Pro Gly Gly Thr Ala Gly
        35                  40                  45
Glu Pro Arg Gln Ala Arg Arg Arg Cys Ala Arg Pro Ser Pro Gly Pro
    50                  55                  60
Pro Glu Asp Ala Ser Arg Ala Thr Ala Cys Arg Pro Ser Pro Arg Glu
65                  70                  75                  80
Ser Pro Arg Thr Arg Arg Ser Pro Ala Ala Gly Ala Gly Ser Ser Gly
                85                  90                  95
Arg Leu Gly Cys Gly Tyr Arg Pro Ala Arg Ala Ala Pro Phe Ala Gln
            100                 105                 110
Pro Pro Pro Ser Ser Arg Leu
        115
```

<210> 38077
<211> 218
<212> PRT
<213> A.fumigatus

```
<400> 38077
Lys Ala Ser Arg Arg Leu Asn Gln Leu Ser Ser His Leu Ser Thr Ala
1               5                   10                  15
Arg Leu Pro Pro Asp Tyr Ser Asp Val Leu Ser Thr Ile Ser Thr Leu
            20                  25                  30
Lys Glu Ile Ala Ala Thr Pro Asn Pro Ser Arg Arg Gly Tyr Ala Arg
        35                  40                  45
Gln Lys Gln Ala Gly Lys Leu Trp Val Arg Glu Arg Ile Thr Gln Leu
    50                  55                  60
Leu Asp Pro Asp Ser Phe Glu Glu Ile Gly Ser Val Ser Gly Thr Val
65                  70                  75                  80
Ala Trp Lys Pro Thr Gly Pro Thr Thr Glu Val Pro Glu Ser Phe Thr
                85                  90                  95
```

```
Pro Ser Asn Asn Val Gln Gly Phe Gly Lys Leu His Gly Arg Arg Val
            100                 105                 110
Leu Leu Thr Ala Asp Asp Phe Ser Ile Arg Ser Gly His Ala Asp Gly
        115                 120                 125
Ser Thr Ala Asp Lys Thr Ile Tyr Ala Glu Lys Leu Ala Val Ala Leu
    130                 135                 140
Lys Leu Pro Val Ile Lys Leu Val Asp Gly Ser Ser Gly Gly Gly Ser
145                 150                 155                 160
Val Thr Thr Ile Arg Lys Glu Gly Trp Ser Tyr Leu Pro Tyr Val Arg
                165                 170                 175
Met Tyr Ala Gln Val Val Glu Gln Leu Asn Lys Gly Ile Pro Asn Leu
            180                 185                 190
Gly Ala Val Val Gly Pro Ala Val Phe Ala Pro Ser Pro Ser Pro Phe
        195                 200                 205
Leu Pro Phe Pro Arg Ser Ile Pro Leu Asp
    210                 215
```

<210> 38078
<211> 171
<212> PRT
<213> A.fumigatus

```
<400> 38078
Gln Gln Leu Leu Ala Lys Ala Asp Thr Ser Pro Gln Ser Gly Ile Asp
1               5                   10                  15
Gln Met Gly Thr Pro Trp Ser Asp Gly Val Pro Gly Leu Ser Gln Arg
            20                  25                  30
Pro Ile Pro Ser Gly Ser Ser Phe Leu Tyr Lys Trp Asn Ala Gly Gln
        35                  40                  45
Tyr Gly Ser Tyr Met Tyr His Ala His Ser Arg Gly Gln Ile Asp Asp
    50                  55                  60
Gly Leu Tyr Gly Ala Ile Tyr Ile Arg Pro Gly Asp Glu Val Glu Lys
65                  70                  75                  80
Pro Phe Trp Leu Ile Ser Asn Arg Thr Arg Glu Val Lys Ala Met Arg
                85                  90                  95
Arg Ala Glu Glu Arg Thr Thr Pro Ile Val Leu Ser Asp Trp Arg Gln
            100                 105                 110
Leu Thr Ser Glu Glu Leu Trp His Ala Glu Glu Ala Thr Gly Leu Asp
        115                 120                 125
Ala Tyr Cys Val Asn Ala Leu Leu Val Asn Gly Arg Gly Ser Val Gln
    130                 135                 140
Cys Leu Asp Arg Ser Thr Leu Asp Arg Tyr Ser Ala Ala Lys Trp Ala
145                 150                 155                 160
Phe Leu Gly Asn Ser Ser Leu Thr Asp Ile Gly
                165                 170
```

<210> 38079
<211> 361
<212> PRT
<213> A.fumigatus

```
<400> 38079
Ser Glu Ala Asp Ser Pro Ser Cys Ala Pro Pro Thr Ile Pro Leu Leu
1               5                   10                  15
Gln Gly Asp Phe Pro His Asn Phe Ser Ala Thr Pro Pro Thr Leu Phe
            20                  25                  30
```

```
Ser Gly Cys Thr Pro Ser Gln Gly Ser Thr Glu Leu Leu Leu Val Asp
        35                  40                  45
Pro Gln Ala Ser Tyr Ala Ser Phe Asp Leu Ile Ser Ala Ala Gly Val
    50                  55                  60
Ser Met Pro Thr Phe Ser Ile Asp Glu His Pro Met Tyr Ile Tyr Ala
65                  70                  75                  80
Ile Asp Gly Arg Tyr Ile Val Pro Val Arg Val Asp Ala Ile Thr Ile
                85                  90                  95
Gly Asn Gly Asn Arg Tyr Ser Val Met Val Lys Leu Asp Lys Pro Ala
            100                 105                 110
Gly Asp Tyr Thr Val Arg Val Ala Asn Ala Gly Ile Asn Gln Leu Ile
        115                 120                 125
Thr Ala Asn Ala Ser Met Ser Tyr Asn Thr Leu Phe Arg Ala Gln Ser
    130                 135                 140
Arg Pro Ser Gln Pro Ser Ile Asp Ile Thr Gly Ala Asn Thr Thr Ala
145                 150                 155                 160
Asp Val Val Ile Leu Asp Glu Ser Arg Val Ile Pro Phe Pro Val Glu
                165                 170                 175
Val Pro Ala Gln Asp Val Ala Gln Thr Phe Phe Leu Asp Val Ala Arg
            180                 185                 190
Phe Asn Ala Ser Tyr Arg Trp Ile Leu Gly Ser Ser Asp Phe Pro Leu
        195                 200                 205
Ser Val Glu Glu Ser Pro Pro Leu Leu Phe Asn Arg Ser Ala Ala Lys
    210                 215                 220
Pro Asp Leu Ser Ile Ser Thr Arg Asn Gly Thr Trp Val Asp Leu Ile
225                 230                 235                 240
Phe Arg Val Thr Gly Pro Leu Gln Pro Pro His Pro Ile His Lys His
                245                 250                 255
Ser Asn Lys Phe Phe Val Ile Gly Gln Gly Asn Gly Val Phe Asn Tyr
            260                 265                 270
Thr Ser Val Thr Glu Ala Arg Lys His Ile Pro Glu Ser Phe Asn Leu
        275                 280                 285
Asn Ala Pro Gln Ile Arg Asp Thr Phe Ala Thr Pro Pro Ser Val Ser
    290                 295                 300
Gly Pro Thr Trp Leu Ala Ile Arg Tyr His Val Val Asn Pro Gly Ala
305                 310                 315                 320
Phe Leu Ile His Cys His Ile Gln Ile His Leu Ser Gly Gly Met Ala
                325                 330                 335
Leu Ala Ile Leu Asp Gly Val Asp Lys Trp Pro Val Asp Ile Pro Gln
            340                 345                 350
Glu Tyr Gln Leu Ala Ala Ser Gly Ser
        355                 360
```

<210> 38080
<211> 219
<212> PRT
<213> A.fumigatus

<400> 38080

```
Pro Gly Leu His Leu Phe Leu Pro Thr Phe His Thr Pro Pro Ser Lys
1               5                   10                  15
Asn Thr Tyr Ser Asp Ser Glu Phe Lys Arg Leu Cys Arg Gly Ile Leu
            20                  25                  30
Pro Tyr Asn Asn Gln Tyr His Ile Tyr Ser Asp Leu Trp Ile Cys His
        35                  40                  45
Thr Trp Asn Gln Tyr Arg Cys Ala Arg Ile Ile Val Ser Glu Met Ile
```

```
    50                  55                  60
Leu Ser Cys Leu Arg Arg Leu His Arg Lys Ser Pro Gly Ala Arg Ala
65                  70                  75                  80
Val Ser Glu Leu Gln Ser His Cys Ile Arg Ile Arg Ser Ser Thr Arg
                85                  90                  95
Gln Leu Ala Ala Asp Ile Cys Ala Ser Val Pro Tyr His Phe Gly Val
            100                 105                 110
Gly Ser Thr Gly Asp Ser Gln Thr Gly Ser Val Pro Leu Asn Glu Cys
        115                 120                 125
His Thr Ala Gly Leu Val Leu Leu Trp Pro Leu Val Met Ala Gly Ala
    130                 135                 140
Thr Glu Gly Lys Asn His Pro Val Arg Lys Trp Gly Ile Asp Cys Leu
145                 150                 155                 160
Arg Leu Ile Gly His Gly Met Gly Ile Asp Gln Ala Leu Ser Leu Ile
                165                 170                 175
Asp Val Leu Glu Thr Glu Ala Gly Val Tyr Asp Cys Val Gly Asp Asp
            180                 185                 190
Gly Val Leu Ile Glu Glu Ser Ser Ser Ala Ile Val Lys Asn Lys Val
        195                 200                 205
Leu Ala Thr Ala Trp Lys His Leu Glu Asp Lys
    210                 215
```

<210> 38081
<211> 160
<212> PRT
<213> A.fumigatus

<400> 38081

```
Leu Arg Leu Asp Lys Ala Ile Leu His Lys Ser Glu Leu Leu Leu Ala
1               5                   10                  15
Ser His Ala Thr Cys Ser Lys Arg Lys Arg Ala His Cys Ser Pro Val
            20                  25                  30
Ser Leu Phe Gly Ser Tyr Lys Ala Met Asp Ser Pro Cys Cys Ile Ile
        35                  40                  45
Pro Cys Ile Val Ala Phe Ala Leu Ser Trp His Leu Leu Ser Arg His
    50                  55                  60
Gly Leu Leu Ser Arg Trp Thr Asp Phe Leu Arg Pro Ala Ser Val Met
65                  70                  75                  80
Leu Cys Phe Met Gly Ser Ala Gly Val Val Arg Phe Lys Ile Thr Leu
                85                  90                  95
Thr Trp Glu Asp Trp Thr Pro Thr Gly Ile Ala Arg Lys Met Ile Leu
            100                 105                 110
Thr Asn Gly Gln Phe Pro Ala Pro Pro Leu Tyr Val Arg Gln Gly Asp
        115                 120                 125
Asp Val Glu Phe Leu Val Asp Asn Gln Leu Pro Phe Ala Thr Ala Val
    130                 135                 140
His Phe His Gly Lys Ala Cys Ser Leu Thr Ala Ile Ala Ser Gln Gly
145                 150                 155                 160
```

<210> 38082
<211> 318
<212> PRT
<213> A.fumigatus

<400> 38082

```
His Ile Gly Gly Phe Arg Pro Tyr Thr Ala Thr Gly Pro Leu Arg Cys
```

```
1               5                   10                  15
Ala His Pro Val Val Pro Leu Ala Arg Thr Ala Tyr Leu Phe Arg Asn
            20                  25                  30
Gly Phe Leu His Pro His Ile Val Pro Val Arg Pro Asn Lys Ile Ala
        35                  40                  45
Thr Tyr Trp Phe Thr Met Val Phe Cys Gly Lys Pro Ser Lys Gly Cys
    50                  55                  60
Gly Gln Cys Arg Ser Arg Lys Ile Arg Cys Asp Gln Glu Arg Pro Ala
65                  70                  75                  80
Cys Ser Gln Cys Leu Lys Gly Asn Arg Val Cys Pro Gly Tyr Arg Asp
                85                  90                  95
Glu Leu Ser Leu Met Phe Arg Asp Glu Ser Gln Gln Val Val Arg Lys
            100                 105                 110
Ala Arg Asn Ser Ala Ala Ala Arg Lys Ser Lys Thr Gln Glu Arg Lys
        115                 120                 125
Ala Ala Arg Arg Thr Leu Ser Pro Ser Glu Ser Ser Pro Glu Ser Thr
    130                 135                 140
Ser Gly Ala Thr Thr Val Ser Val Gly Arg Ser Ser Asp Val Ile Asp
145                 150                 155                 160
Phe Gly His Glu Ser Pro Val Gln Thr Glu Leu Ile Glu Arg Gln Pro
                165                 170                 175
Leu Thr Arg Ile Gln Pro Ser Tyr Gln Thr Thr Gln Asp Glu Ala Val
            180                 185                 190
Cys Tyr Phe Leu Arg Tyr Asn Arg Trp Pro Gly Phe His Trp Met Leu
        195                 200                 205
Asp Leu Ser Pro Glu Phe Leu Ala Ser Ser Gly Phe Ser Val Ser His
    210                 215                 220
Glu Ala Met Lys Ala Ser Val Gly Ala Val Gly Thr Ala Met Leu Gly
225                 230                 235                 240
Arg Val Arg Gln Asp Met Ser Met Ile Ile Ala Ala Gly Ala Glu Tyr
                245                 250                 255
Gly Phe Ala Leu Gln Met Leu Ala Phe Ala Val Ser Asp Pro Ala Glu
            260                 265                 270
Val Lys Ala Asn Ser Thr Leu Gly Ala Val Leu Met Leu Ala Ile Phe
        275                 280                 285
Glu Val Ser Cys Leu Ser Ser Leu Val Phe Leu His Met His Cys Ser
    290                 295                 300
Asp Ile Tyr Pro Gly Arg Asp Gln Pro Asp Asn Thr Lys Tyr
305                 310                 315
```

<210> 38083
<211> 73
<212> PRT
<213> A.fumigatus

<400> 38083

```
Ala Ala Met Gln Thr His Asp Leu Leu Asp Lys Asp Gly Ser Met Val
1               5                   10                  15
Ser Leu Leu Asp Asn Asn Lys Ile Glu Asn Ser Leu Glu Asp Phe Gln
            20                  25                  30
Gly Lys Ser Ser Asn Asp Ile Leu Ala Leu Asp Ile Gln His Arg Glu
        35                  40                  45
His Val Tyr His Glu Asn His Glu Thr Ser Tyr Ile Tyr Ser Gly Gly
    50                  55                  60
Arg Lys Arg Asp Ile Ala Leu Tyr His
65                  70
```

<210> 38084
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38084
Tyr Ser Gly Tyr Ala Cys Ser Thr Leu Leu Ser Val Ile Gly Ser Gly
1 5 10 15
Ala His Val Ile Leu Tyr Ile Arg Gln Leu Ser His Tyr Val Thr Ser
20 25 30
Phe Gln Lys Thr Ser Leu Leu Tyr Ile Cys Phe Val Leu Asn Pro Cys
35 40 45
Thr His Ser Thr Thr Leu Ser Leu Val Tyr His Pro Ile Lys Thr Ser
50 55 60
Glu Leu Arg Ala
65

<210> 38085
<211> 171
<212> PRT
<213> A.fumigatus

<400> 38085
Gln Arg His Leu Arg Ser Gly Asp Ile Ala Asn Lys Ser Cys Ile Asp
1 5 10 15
Pro His His Thr Asp Leu Gln Arg Leu Cys Asn Pro Glu Asn Ala Leu
20 25 30
Asp Val Ser Ala Glu Glu Val Ala Gly Lys Ala Asp Leu Gly Thr Ile
35 40 45
Gly Gln Leu Asp Asp Leu Phe Leu Gly Leu Lys Gly Glu Asn Ser Ser
50 55 60
His Arg Ala Glu Arg Leu Leu Gly Gly His Gln His Val Leu Ala His
65 70 75 80
Leu Gly Glu Asp Ser Gln Phe Val Glu Val Gly Ala Gln Leu Gly Asp
85 90 95
Phe Leu Ala Ser Arg Asp Lys Leu Gly Ser Leu Gly Leu Ser Val Leu
100 105 110
Asn Val Leu Val Asp Leu Phe Gly Ser Thr Leu Val Asp Lys Arg Ala
115 120 125
Val Ser Asp Thr Val Pro Glu Ala Gly Ala Glu Leu Glu Val Leu Asp
130 135 140
Leu Cys Arg Glu Ala Leu Asp Glu Phe Ile Ile His Thr Ser Leu Asp
145 150 155 160
Val Asp Pro Val Ser Ala Asp Ala Gly Leu Ala
165 170

<210> 38086
<211> 245
<212> PRT
<213> A.fumigatus

<400> 38086
Ser Leu Lys Asn Thr Pro Glu Val Gly Glu Val Ile Thr Thr His Pro
1 5 10 15
Glu Val Arg Lys Val Ser Phe Thr Gly Ser Thr Asn Val Gly Arg Leu

```
            20                  25                  30
Leu Met Lys Gln Ala Ser Ser Thr Ile Lys Lys Val Ser Trp Glu Leu
        35                  40                  45
Gly Gly Asn Ala Pro Phe Ile Val Phe Asp Asp Val Asp Asp Leu Asp
    50                  55                  60
Ala Ala Val Ala Gly Ala Ile Ala Ser Lys Phe Arg Ser Ser Gly Gln
65                  70                  75                  80
Thr Cys Val Cys Ala Asn Arg Ile Tyr Val Gln Arg Gly Val Tyr Asp
                85                  90                  95
Glu Phe Val Lys Arg Phe Ala Ala Lys Val Lys Asn Phe Lys Leu Gly
            100                 105                 110
Ser Gly Phe Gly Asp Gly Val Thr His Gly Pro Leu Ile His Glu Arg
        115                 120                 125
Ala Thr Glu Lys Val Asp Gln His Val Lys Asp Ala Gln Ala Lys Gly
    130                 135                 140
Ala Lys Leu Val Ala Gly Gly Gln Lys Val Pro Glu Leu Gly Pro Asn
145                 150                 155                 160
Phe Tyr Glu Leu Thr Val Leu Ala Glu Met Ser Lys Asp Met Leu Met
                165                 170                 175
Ala Ser Glu Glu Thr Phe Gly Pro Val Ala Gly Ile Phe Pro Phe Glu
            180                 185                 190
Thr Glu Lys Glu Val Val Glu Leu Ala Asn Arg Ala Glu Val Gly Leu
        195                 200                 205
Ala Gly Tyr Phe Phe Ser Gly Asn Val Lys Arg Ile Phe Arg Val Ala
    210                 215                 220
Glu Ala Leu Glu Val Gly Met Val Gly Val Asn Thr Gly Leu Ile Ser
225                 230                 235                 240
Asp Val Ala Thr Pro
                245
```

<210> 38087
<211> 125
<212> PRT
<213> A.fumigatus

<400> 38087

```
Trp Pro Pro Arg Arg Arg Ser Ala Leu Trp Leu Glu Phe Ser Pro Leu
1               5                   10                  15
Arg Pro Arg Lys Arg Ser Ser Ser Trp Pro Ile Val Pro Arg Ser Ala
            20                  25                  30
Leu Pro Ala Thr Ser Ser Ala Glu Thr Ser Ser Ala Phe Ser Gly Leu
        35                  40                  45
Gln Arg Arg Trp Arg Ser Val Trp Trp Gly Ser Ile Gln Asp Leu Leu
    50                  55                  60
Ala Met Ser Pro Leu Arg Lys Cys Leu Cys Gln Arg Glu Cys Tyr Cys
65                  70                  75                  80
Ile Val Leu Thr Leu Ala Arg Phe Gly Gly Val Lys Gln Ser Gly Phe
                85                  90                  95
Gly Arg Glu Gly Ser Lys Tyr Gly Ile Asp Glu Phe Leu Thr Ile Lys
            100                 105                 110
Ser Val Thr Phe Gly Gly Met Gly Glu Pro Leu Gln Ser
        115                 120                 125
```

<210> 38088
<211> 175
<212> PRT

<213> A.fumigatus

<400> 38088

```
Val Leu Ser Thr Glu Val Arg Leu Ile Phe Leu Pro Asn Asn Lys Ile
1               5                  10                  15
Cys Ser Leu Thr His Phe Leu Gly Asp Pro Tyr Pro Ala Glu Val Ala
            20                  25                  30
Ala Thr Val His Ala Val Met Gln Arg Leu Asn Phe Ser Asn Pro Tyr
        35                  40                  45
Arg Leu Cys Trp Gln Ser Gln Val Gly Pro Ser Ala Trp Leu Gly Ala
    50                  55                  60
Gln Thr Ser Asp Thr Val Glu Asn Tyr Val Lys Arg Gly Gln Thr Asp
65                  70                  75                  80
Ile Ile Leu Val Pro Ile Ala Phe Thr Ser Asp His Ile Glu Thr Leu
                85                  90                  95
Tyr Glu Leu Asp Leu Glu Val Ile Lys Glu Ala Asn Ser Pro Gly Val
            100                 105                 110
Lys Arg Ala Glu Ser Leu Asn Gly Asn Pro Ile Phe Ile Gln Ala Leu
        115                 120                 125
Ala Asp Ile Ala Gln Glu His Leu Arg Lys Gly Glu Lys Cys Ser Leu
    130                 135                 140
Gln Met Thr Leu Arg Cys Gln Gly Cys Lys Ser Glu Arg Cys Leu Glu
145                 150                 155                 160
Gln Lys Lys Phe Phe Ala Gly Asp Arg Phe Ser Ser Leu Val Val
                165                 170                 175
```

<210> 38089
<211> 496
<212> PRT
<213> A.fumigatus

<400> 38089

```
Val Phe Trp Leu Phe Pro Phe Leu Leu Leu Tyr Met Leu Gly Phe Ala
1               5                  10                  15
Gly Val Val Val Pro Lys Ile Asn Leu Val Leu Ser Leu Val Cys Arg
            20                  25                  30
Asp Tyr Leu Ser Lys Lys Ala Ser Gln Asp Pro Asn Phe Thr Tyr Leu
        35                  40                  45
Pro Val Ile Ile Gly Glu Asp Asn Pro Gln Cys Gln Val Pro Glu Val
    50                  55                  60
Gln Ser Leu Val Ala Gln Phe Gln Leu Tyr Leu Asn Leu Ile Ala Gly
65                  70                  75                  80
Ile Leu Ser Ala Leu Val Ser Pro Arg Leu Gly His Val Ser Asp Arg
                85                  90                  95
Tyr Gly Arg Thr Arg Leu Ile Ala Leu Ser Ser Leu Gly Ala Val Leu
            100                 105                 110
Gly Glu Thr Leu Thr Val Leu Val Ala Ala Arg Pro Glu Arg Phe Ser
        115                 120                 125
Ile Asn Leu Leu Leu Val Gly Ala Leu Leu Asp Gly Ile Gly Gly Ser
    130                 135                 140
Phe Thr Thr Ile Leu Ala Leu Ala Thr Ser Tyr Ala Ser Asp Cys Thr
145                 150                 155                 160
Ala Pro Glu Lys Arg Ser Val Ala Phe Gly Tyr Leu His Gly Ala Leu
                165                 170                 175
Phe Val Gly Leu Ala Cys Gly Pro Leu Val Ala Ala Ile Val Leu Lys
            180                 185                 190
```

```
Lys Thr Gly Glu Ile Ile His Ile Phe Ala Ala Gly Leu Ala Phe His
        195                 200                 205
Ala Leu Phe Phe Phe Met Val Leu Leu Val Ile Pro Glu Ser Leu Ser
    210                 215                 220
Lys Glu Gln Gln Gln Val Ala Arg Glu Lys His Arg Arg Arg Phe Thr
225                 230                 235                 240
Gln Lys Glu Thr Ala Gly Trp Phe Ser Ser Ser Ser Trp Leu Gln His
                245                 250                 255
Leu Asn Pro Lys Asn Leu Ile Thr Pro Leu Ser Ile Leu Cys Pro Pro
            260                 265                 270
Val Gly Arg Pro Ser Ser Leu Phe Pro Asn Arg Lys Gly Ala Ser Pro
        275                 280                 285
Ala Leu Arg Arg Asn Ile Ile Leu Leu Ala Ala Ile Asp Thr Val Val
    290                 295                 300
Phe Ala Val Ala Leu Gly Ser Ala Gln Leu Val Ile Ile Tyr Ala Glu
305                 310                 315                 320
Phe Met Phe Gly Trp Gly Asn Ile Glu Ser Ser Ile Phe Ile Ser Ile
                325                 330                 335
Val Ser Thr Val Arg Val Leu Val Leu Phe Leu Val His Pro Ile Leu
            340                 345                 350
Thr Arg Ile Phe His Lys Arg Thr Ala Glu Gln Arg Val Ile Pro Gly
        355                 360                 365
Ser Asn Arg Val Glu Leu Val Ile Ile Gln Ile Ser Ile Phe Phe Asp
    370                 375                 380
Phe Leu Gly Tyr Val Gly Tyr Thr Leu Val Arg Ser Ser Ala Leu Met
385                 390                 395                 400
Thr Leu Ser Gly Ile Val Ala Ala Leu Gly Ser Leu Ala Thr Pro Thr
                405                 410                 415
Leu Gln Ser Ser Leu Thr Lys His Val Pro Arg Glu Arg Val Gly Gln
            420                 425                 430
Ile Leu Gly Ala Lys Gly Leu Leu His Ala Leu Ala Arg Val Ile Ala
        435                 440                 445
Pro Thr Leu Cys Asn Leu Val Tyr Ser Leu Thr Val Gly Lys Phe Thr
    450                 455                 460
Gln Thr Val Phe Val Ser Leu Ala Ala Val Phe Phe Leu Ala Ile Cys
465                 470                 475                 480
Ser Ser Phe Tyr Ile Thr Pro Asn Gly Ser Glu Ile Phe Pro Phe Thr
                485                 490                 495
```

<210> 38090
<211> 157
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3),(13)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38090

```
Thr Ala Xaa His Lys Pro Tyr Val Ala Phe Arg Tyr Xaa Asp Leu Leu
1               5                   10                  15
Thr Glu Glu Met Tyr Thr Lys Leu Leu Glu Asp Gly Phe Gly Asn Gly
            20                  25                  30
Lys Gly Gly Arg Ala Val Ala Phe Thr Gln Tyr Pro Gln Tyr Ser Cys
        35                  40                  45
```

```
Ser Thr Thr Gly Ser Ser Leu Asn Glu Leu Trp Lys Trp Arg Thr Arg
    50                  55                  60
Leu Glu Gly Lys Arg Ala Asn Gly Asn Met Asp Pro Ala Gly Ala Ile
65                  70                  75                  80
Gln Trp Ser Val Ile Asp Arg Trp Pro Thr His Pro Gly Leu Val Glu
                85                  90                  95
Ala Phe Ala Arg Asn Ile Glu Glu Gln Leu Met Thr Tyr Pro Glu Glu
            100                 105                 110
Lys Arg Asn Gly Val Val Leu Leu Phe Ser Ala His Ser Leu Pro Met
        115                 120                 125
Ser Val Val Asn Arg Gly Glu Thr His Leu Leu Thr Glu Gln Gln Asp
    130                 135                 140
Leu Leu Ala Asn Thr Phe Pro Arg Arg Pro Ile Ser Cys
145                 150                 155
```

<210> 38091
<211> 426
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (16)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38091

```
Ile Leu Leu Arg Thr Gly Cys Glu Ala Val Ile Leu Ala Ala Arg Xaa
1               5                   10                  15
Glu Pro His Asp Ser Glu Ala Thr His Thr Gln Leu Glu Ile Thr Gly
            20                  25                  30
His Ser Gly Val Asp Asp Glu Pro Leu Ala Leu Gly Glu Asn Ala Val
        35                  40                  45
Thr Ala Ala Gln Phe Pro Pro Gly Val Pro Leu Pro Pro Val Lys Arg
    50                  55                  60
Leu Pro Ala Glu Phe Glu Cys Pro Ile Cys Phe Lys Val Lys Arg Phe
65                  70                  75                  80
Gln Lys Pro Ser Asp Trp Thr Lys His Val His Glu Asp Val Gln Pro
                85                  90                  95
Phe Thr Cys Thr Phe Pro His Cys Asn Glu Pro Lys Ser Phe Lys Arg
            100                 105                 110
Lys Ala Asp Trp Val Arg His Glu Ser Glu Arg His Arg Lys Leu Glu
        115                 120                 125
Trp Trp Thr Cys Thr Val His Asp Cys His His Thr Cys Tyr Arg Lys
    130                 135                 140
Asp Asn Phe Val Gln His Leu Val Arg Glu His Lys Met Pro Glu Pro
145                 150                 155                 160
Lys Ile Lys Lys Thr Lys Thr Lys Gly Val Gly Pro Ala Ala Glu Thr
                165                 170                 175
Gln Glu Glu Ser Ser Arg Glu Arg Glu Ala Glu Gln Leu Trp Glu Leu
            180                 185                 190
Val Asp Gln Cys His His Asp Thr Ser Lys Gly Pro Arg Glu Glu Pro
        195                 200                 205
Cys Arg Phe Cys Gly Asn Val Cys Ser Ser Trp Lys Lys Leu Thr Val
    210                 215                 220
His Leu Ala Lys His Met Glu Gln Ile Ala Met Pro Val Leu Ala Leu
225                 230                 235                 240
```

```
Val Gln Glu Arg His Leu Phe Pro Asn Ile Asp Ala Asp Val Ala Pro
                245                 250                 255
Lys Ala Val Ser Tyr Pro Gly Ser Ile Ala Gln Glu Val Thr Ser Phe
            260                 265                 270
Ser Pro Gln Leu Asn Gly Ile Lys Ala Glu Pro Glu Ala Pro Met Asn
        275                 280                 285
Phe Glu Ala Gly Gln Ser Glu Pro Pro Thr Gly Phe Leu Asn Pro Thr
    290                 295                 300
Tyr Pro Pro Thr Ser Thr Thr Leu His Gln Gly Phe Leu Ser Ala Gly
305                 310                 315                 320
Pro Asp Val Tyr Thr Ala Tyr Gly Ser Gln Ala Gly Phe Ala Gly Gln
                325                 330                 335
Gln Phe Val Ser Leu His Gln Asn Ser Val Thr Tyr Pro Pro Leu Leu
            340                 345                 350
Asn Thr Gly Ser Arg Pro Arg Ile Thr Thr Gln Glu Leu Ser Val Leu
        355                 360                 365
Gln Asn Pro Tyr Gln Leu Cys Ser Ser Pro Thr Asp Met Arg Ala Thr
    370                 375                 380
Tyr Asp Pro Gln Gly Thr Leu His Met Ser Pro Pro Pro Val Glu Asn
385                 390                 395                 400
Gly Gln Ala Tyr His Asp Gln Ile Thr Gln Ala Thr Ser Tyr Ser Tyr
                405                 410                 415
Asp Gly Ser Val Gly Tyr Ser Arg Gln Phe
            420                 425
```

<210> 38092
<211> 69
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (21)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38092

```
Leu Glu Ser Leu Ser Thr His Arg Leu Ser Ile Cys Ser Pro Trp Glu
1               5                   10                  15
Ser Pro Ile Arg Xaa Thr Thr Thr Leu Thr Gly Gly Ala Pro Thr Gly
            20                  25                  30
Gln Tyr Ser Thr Pro Ser Glu Asn Asp Ser Gln Tyr Asn Gly Leu Ala
        35                  40                  45
Ser Gly Asp Ser Gly Tyr Arg Glu Ser Lys Pro Gly Leu Thr Pro Ala
    50                  55                  60
Pro Ile Leu Val Leu
65
```

<210> 38093
<211> 278
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (98)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38093
Pro Val Ser His Ser Tyr Arg Ile Glu Arg Ile Ser Val Ala Arg Phe
1 5 10 15
Ile Asn Met Pro Gly Leu Thr Leu His Leu Leu Ala Leu Ala Pro Ser
20 25 30
Thr Thr Ala Glu Ser Phe Phe Arg Gln Leu Arg Gln Ser Ser Ala Ile
35 40 45
Lys Ile Ile Leu Ala Ser Arg Pro Gln His Ile Val Ile Pro Pro Thr
50 55 60
Phe Ile Asp Ser Asn Leu Leu Thr Thr Thr Lys Trp Asp Leu Leu Val
65 70 75 80
Leu Leu Gln Pro Ser Ser Arg Thr Gln Glu Ala Ala Arg Glu Ser Leu
85 90 95
Pro Xaa Asn Leu Gln Pro Phe Val Gln Gln Glu Tyr Arg Leu Ala Val
100 105 110
Gly Val Pro Ser Lys Leu Leu Ser Asn Tyr Asp Asp Arg Asp Arg Ser
115 120 125
Leu Lys Arg Ala Ala Ser Ser Ile Pro Leu Thr Gly Ser Leu Ala Asn
130 135 140
Ala His Gln Lys Pro Ser Ser Lys Asn Leu Glu Leu Ser Pro Asp Leu
145 150 155 160
Leu Ala Tyr Met Asp Thr Leu Thr Arg Thr His Asp Gly Pro Val Thr
165 170 175
Met Leu Asn Leu Leu His Phe His His Pro Asn Gly Lys Lys Ser Tyr
180 185 190
Tyr Gln Tyr Gly Gln Ala Phe Ile Pro Val Ala Gly Lys Arg Gly Gly
195 200 205
Asn Ala Lys Leu Val Gly Asn Val Ile Arg Pro Ala Ser Thr Ala Gln
210 215 220
Val Asp Ser Arg Gly Ser Leu Asp Arg Pro Glu Thr Asp Trp Trp Asn
225 230 235 240
Glu Ile Ser Leu Val His Tyr Pro Ser Ile Arg His Leu Cys Asp Met
245 250 255
Leu Ala Gly Glu Asp Tyr Gln Ala Ile Asn Glu Lys Tyr Arg Leu Ser
260 265 270
Val His Cys Ala Phe Leu
275

<210> 38094
<211> 66
<212> PRT
<213> A.fumigatus

<400> 38094
Ala Asn Thr Ile Ser Val Thr Ala Arg Asn Ala Leu Tyr Arg Leu Val
1 5 10 15
Gly Leu Val Thr Ser Thr Leu Thr Phe Gly Gly Arg Trp Thr Pro Ser
20 25 30
Ala Ile Ile Val Thr Lys Thr Ala Pro Thr Ile Leu Ala Asn Ala Ala
35 40 45
Val Ile Thr Gln Cys Gln Leu Val Thr Ala His Thr Thr Asp Leu Thr
50 55 60
Asn His
65

<210> 38095
<211> 161
<212> PRT
<213> A.fumigatus

<400> 38095
Pro Arg Gly Val Ile Leu Ile Val Gly Ile Ala Ile Leu Thr Val Tyr
1 5 10 15
Thr Gly Tyr Val Met Gly Gln Phe Lys Gln Arg Tyr Pro His Val His
20 25 30
Ser Ile Ala Asp Gly Gly Glu Val Leu Phe Gly Trp Val Gly Arg Glu
35 40 45
Ile Leu Gly Ala Gly Leu Leu Leu Cys Leu Val Phe Val Met Gly Gly
50 55 60
His Ile Leu Thr Phe Thr Val Met Met Asn Thr Leu Thr Asp His Gly
65 70 75 80
Thr Cys Ser Val Val Phe Gly Val Val Gly Leu Leu Ile Ser Leu Ile
85 90 95
Leu Ser Leu Pro Arg Thr Phe Lys Arg Met Ser Trp Leu Ser Val Ile
100 105 110
Cys Lys Ile Cys Arg Met Ser Ser Asp Glu Leu Thr Leu Ser Asp Asp
115 120 125
Cys Ser Val Cys Gln Tyr Arg Trp Gly Ser Leu Gly His Asn Asp Arg
130 135 140
Ala Trp Cys Pro Ala Ala Ala Glu Cys Glu Gly Arg Ser Asp Gln Ala
145 150 155 160
Asp

<210> 38096
<211> 77
<212> PRT
<213> A.fumigatus

<400> 38096
Pro Thr Thr Ala Ala Ala His Pro Ala Phe Phe Gly Phe Ile Ser Glu
1 5 10 15
Met Lys Thr Pro Thr Asp Trp Pro Lys Thr Leu Cys Phe Val Glu Ile
20 25 30
Ile Asn Thr Thr Leu Tyr Thr Val Thr Gly Val Val Ile Tyr Arg Phe
35 40 45
Ala Gly Gln His Val Ala Ser Pro Ala Leu Gly Ser Thr Ser Pro Leu
50 55 60
Met Ala Lys Val Ala Tyr Gly Thr Ala Ile Pro Thr Val
65 70 75

<210> 38097
<211> 67
<212> PRT
<213> A.fumigatus

<400> 38097
Thr Phe Ala Pro Pro Pro Leu Leu Ala Leu Ile Gly Val Pro Arg Ile
1 5 10 15
Thr Leu Ala Ala Asn Glu Glu Ala Asp Phe Val Ser Asp Gly Gln Ser
20 25 30

```
Gly Leu Pro Lys Met Ser Ser Arg Leu Thr Thr Phe Ser Leu Phe Phe
        35                  40                  45
Ser Tyr Ile Leu Phe Arg Phe Trp Glu Thr Gly Thr Gly Arg Cys Gln
    50                  55                  60
Lys Glu Ala
65
```

<210> 38098
<211> 66
<212> PRT
<213> A.fumigatus

<400> 38098

```
Val Asp Leu Leu Arg Ser Ala Ser Gly Glu Gln Leu Asn Asn Thr Glu
1               5                   10                  15
Glu Ala Ala Leu Leu Phe Tyr Leu Phe Pro Gly Pro Gly Glu Lys Trp
            20                  25                  30
Gly Arg Ile His Pro Glu Thr Glu Gln Val Cys Cys Leu Lys Asp Met
        35                  40                  45
Gly Leu Ser Gly Glu Ile Lys Ile Asp Glu Ile Asn Leu Lys Gly Leu
    50                  55                  60
Asn Gly
65
```

<210> 38099
<211> 405
<212> PRT
<213> A.fumigatus

<400> 38099

```
His Ser Ala Glu Ser Val Ile Ala Val Thr Ser Arg Ser Ser Asn Ile
1               5                   10                  15
Ser Ser Ala Phe Leu Ile Leu Val Ser Thr Arg Ser Leu Phe Gly Ala
            20                  25                  30
Ala Gly Val Leu Thr His Thr Leu Val His Glu Thr Arg Leu Ser Ala
        35                  40                  45
Gly Ile Glu Asp Lys Pro Ala Thr Glu Leu Arg Gly Ser Tyr Gln Ala
    50                  55                  60
Leu Ser Phe Ala Lys Arg Cys Gly Arg Val Asp Tyr Ala Gly Leu Asp
65                  70                  75                  80
Gly Pro Ala Arg Lys Lys Arg Lys Arg Gly Lys Lys Ser Ser Asn Ala
                85                  90                  95
Thr Lys Ile Pro Asn Glu Ser Ser Ser Gln Lys His Ser Asp Ala Ala
            100                 105                 110
Ser Pro Gly Gln Thr Glu Gln Ala Asn Thr Cys Ala Gly Val Ala Thr
        115                 120                 125
Asp Lys Ser Leu Val Pro Gly Glu Pro Lys Val Gly Gly Thr Ala Pro
    130                 135                 140
Ala Pro His Gly Gln Glu Tyr Pro Thr Ser Asn Ser Ser Ala Leu Pro
145                 150                 155                 160
Glu Val Glu Ala Glu Arg His Ser Ala Leu Asp Ser Pro Ser Ser Ala
                165                 170                 175
Thr Glu Gly Val Pro Arg Pro Asp His Gln Lys Glu Pro Asp Cys Pro
            180                 185                 190
Ser Leu Ala Ala Thr His Ile Cys Ser Gly Ser Thr Phe Asp Val Asn
        195                 200                 205
```

```
Gly Ala Gly Cys Asn Thr Leu Leu Pro Ser Arg Leu Ser Ser Met Pro
    210                 215                 220
Thr Leu Cys Ala Ser Ala Met Arg Thr Ile Glu Thr Ile Leu Thr Asn
225                 230                 235                 240
Cys Val Glu Leu Asn Tyr Ala Leu Thr Gln Tyr Arg Arg Gln Lys Lys
                245                 250                 255
Asp Val Thr Ile Thr Thr Lys Ile Glu Asp Ile Arg Gly Tyr Val Glu
            260                 265                 270
Glu Ile Thr Gln Leu Lys Tyr Ala Asp Ala Met His Ile Val Lys Lys
        275                 280                 285
Asp Asn Ala Leu Phe Ala Ser Lys Ala Met Gln Ala Arg Tyr Asn Glu
    290                 295                 300
Thr Ala Tyr Trp Asp Ile Ile Leu Lys Gly Ala Lys Phe Leu Asp Pro
305                 310                 315                 320
Ala Lys Leu Pro Thr Ala Met Gly Arg Leu Asp Asp Phe Thr Arg Ala
                325                 330                 335
Glu Lys His Ala Met Arg Thr Phe Met Glu Glu Ala Gly Tyr Gly Thr
            340                 345                 350
Ser Tyr Ala Asn Gln Gln Arg Cys Arg Arg Leu Trp Arg Asn Leu Ser
        355                 360                 365
Gln Met Arg Asn Ala Gly Val Asp Arg Ile Pro Leu Tyr Arg Thr Lys
    370                 375                 380
Glu Phe Asp Ser Phe Cys His Glu Tyr Pro Lys Asp Thr Glu Pro Ser
385                 390                 395                 400
Leu Leu Glu Met Ile
                405
```

<210> 38100
<211> 155
<212> PRT
<213> A.fumigatus

```
<400> 38100
Lys Thr Asn Ala Thr Thr Arg Glu Tyr Ser Ala Leu Lys Ser Ile Val
1               5                   10                  15
Met Ala Ser Pro Asn Glu Val Val Lys Met Pro Ile Asn Glu Pro Ala
            20                  25                  30
Lys Gly Lys Lys Gln Ser Gln Ile Glu Glu Tyr Val Asp Phe Tyr Asn
        35                  40                  45
Gly Ala Gly Val Gln His Ile Ala Leu Leu Thr Asp Asp Ile Ile Arg
    50                  55                  60
Asp Ile Thr Asn Leu Lys Ala Arg Gly Val Glu Phe Ile Lys Val Pro
65                  70                  75                  80
Asp Thr Tyr Tyr Glu Asp Ile Lys Val Arg Leu Lys Lys Ala Gly Leu
                85                  90                  95
Thr Leu His Glu Asp Phe Glu Thr Ile Arg Ser Leu Asp Ile Leu Ile
            100                 105                 110
Asp Phe Asp Glu Gly Gly Tyr Leu Leu Gln Leu Phe Thr Lys Val Cys
        115                 120                 125
His Phe Pro Phe Ser Arg Arg Pro Gln Thr Val Thr Leu Ile Glu Arg
    130                 135                 140
Thr Ala Leu Asp Gly Ser Pro His Arg Leu His
145                 150                 155
```

<210> 38101
<211> 243

<212> PRT
<213> A.fumigatus

<400> 38101
Gln Leu Leu Tyr Arg Gly Leu Ile Ser Ser Leu Thr Arg Thr Ala Tyr
1 5 10 15
His Leu Phe Ser Leu Asp Phe Asn Met Ala Pro Ser Ala Ile Ser Thr
20 25 30
Ser Pro Pro Pro Thr Asp Arg Val Ser Ser Ser Leu Ala Ser Tyr Lys
35 40 45
Gly Tyr Asp His Val His Trp Tyr Val Gly Asn Ala Lys Gln Ala Ala
50 55 60
Ser Tyr Tyr Ile Thr Arg Met Gly Phe Lys Arg Ile Ala Tyr Arg Gly
65 70 75 80
Leu Glu Thr Gly Cys Arg Ser Val Cys Ser His Val Val Arg Asn Gly
85 90 95
Asp Ile Thr Phe Ile Leu Thr Ser Pro Leu Arg Ser Leu Asp Gln Val
100 105 110
Asp Arg Phe Pro Pro Glu Glu Gln Glu Leu Leu Lys Glu Ile His Ala
115 120 125
His Leu Glu Lys His Gly Asp Gly Val Lys Asp Val Ala Phe Glu Val
130 135 140
Asp Ser Val Asp Ser Val Phe Tyr Ala Ala Thr Asn Asn Gly Ala Lys
145 150 155 160
Ile Val Ser Gln Pro Arg Thr Leu Glu Asp Asp Asn Gly Gln Val Arg
165 170 175
Val Ala Thr Ile Gln Thr Tyr Gly Glu Thr Thr His Thr Leu Val Glu
180 185 190
Arg Gly Ser Tyr His Gly Ala Phe Leu Pro Gly Tyr Arg Met Glu Thr
195 200 205
Gly Val Glu Asp Pro Ile Ser Gln Leu Leu Pro Gly Val His Leu Asn
210 215 220
Arg Ile Asp His Cys Val Gly Asn Gln Asp Trp Asp Glu Met Asp Lys
225 230 235 240
Val Cys Glu

<210> 38102
<211> 148
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (123),(130),(136),(139),(147)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38102
His Tyr Arg Ile Ile His Phe Phe Ser Cys Asn Ile Lys Thr Pro Asn
1 5 10 15
Lys Met Ala Ser Gly Thr Thr Ile Gln Pro Ser Arg Pro Ser Leu Thr
20 25 30
Ser Asn Asp Ser Ala Val Leu Gln Ala Leu Phe Asp Ala Glu Ser Ser
35 40 45
Pro Ser Ser Ala Val Ala Ile Asp Pro Ser Leu Ser Pro Phe Pro Glu
50 55 60

Tyr Leu His Ile Ser Ala Ser Asp His Glu Ser Leu Lys Ala Arg Glu
65 70 75 80
Leu Ser Ile Ile Arg Ser Leu Gln Ser Asp Asp Val Ser Met Asp Thr
85 90 95
Ile Thr Ser Gly Ile Arg Asp Leu Asp Ala Leu Ile Thr Glu His Pro
100 105 110
Thr Tyr Pro Ser Ala Tyr Val Asn Arg Ala Xaa Pro Ser Ala Tyr Thr
115 120 125
Leu Xaa Lys Thr Pro Lys Leu Xaa Pro Thr Xaa Lys Ser Tyr Leu Pro
130 135 140
Pro Trp Xaa Thr
145

<210> 38103
<211> 85
<212> PRT
<213> A.fumigatus

<400> 38103
Leu Phe Ser Gly Met Val Phe Leu Arg Leu Thr Val Lys Val Tyr Pro
1 5 10 15
Arg Glu Gln Thr Gln Ser Ser Ser Ser Phe Ser Ile Arg Ser Phe Leu
20 25 30
Gly Asp Arg Asp Arg Asp Ala Ser Gly Gln Asn Ser Gly Gln Ala Ala
35 40 45
Gly Lys Pro Ala Ser Phe Leu Leu Val Leu Glu Lys Pro Glu Asp Val
50 55 60
Thr Met Gly Gly Leu Ala Ser Met Ile Arg Glu Lys Trp Thr Lys Leu
65 70 75 80
Pro Pro Asn Ala Glu
85

<210> 38104
<211> 536
<212> PRT
<213> A.fumigatus

<400> 38104
Gln Asp Ala Pro Lys Trp Pro Ser Val Tyr Glu Lys Asp Tyr Leu Arg
1 5 10 15
His Gly Gln Pro Leu Thr Ser Leu Pro Thr Ser Gln Gln Arg Asp Ala
20 25 30
Leu Ala Gly Val His Ser Leu Asn Gly Pro Arg Val Val Arg Asn Ile
35 40 45
Pro Ser Ile Ser Gly Pro Ser Pro Leu Glu Leu Ala Asn Asp Thr Pro
50 55 60
Arg Glu Leu Met Arg Ser Pro Ser Glu Leu Ala Leu Pro Pro Ala Leu
65 70 75 80
Arg His Ser Thr Ile Ile Arg Lys Gly Trp Asp Asn Ala Val Asp Ile
85 90 95
Phe Val Thr Ile Leu Leu Leu Phe Phe Gly Ala Phe Ile Tyr Phe Asn
100 105 110
Ser His Asn Ile Gln Glu Leu Ala Lys Gln Lys Leu Asp Val Lys Asn
115 120 125
Ile Ile Ala Ser Tyr Ala Gln Pro Pro Leu Ser Thr Pro Ser Thr Pro
130 135 140

```
Val Val Glu Ser Thr His Phe Lys Arg Asp Ser Ser Pro Ser Arg Pro
145                 150                 155                 160
Ile Ser Asn Leu Thr Val Glu Val Thr Val Pro Glu Glu Gln Gln Glu
                165                 170                 175
Gly Asp Ala Thr Pro Lys Ser Lys Arg Asp Arg Ser Ala Val Gly Pro
            180                 185                 190
Asp Ser Thr Pro Arg Val Lys Ile Arg Glu Pro Ser Arg Gly Pro Asp
        195                 200                 205
Ser Asp Asp Asp Val Glu Glu Leu Asp Gln Ala Ala Ser Pro Glu Lys
    210                 215                 220
Pro Lys Lys Lys Ala Arg Arg Gly Arg Arg Gly Gly Lys Asn His Arg
225                 230                 235                 240
Arg Gly Lys Lys Pro Asp Ser Glu Gly Glu Ser Lys Asp Gln Ala Asp
                245                 250                 255
Arg Val Val Asp Gln Val Asn Asn Leu Gln Pro Gln Ser Arg Leu Glu
            260                 265                 270
Pro Asp Leu Gln Leu Val Arg Thr Val Ser Asn Asp Ile Ile Glu Met
        275                 280                 285
Asp Gly Val Leu Gln Ile Gly Arg Leu Arg Val Phe Ser Asp Val Val
    290                 295                 300
Leu Gly His Gly Ser His Gly Thr Val Val Tyr Arg Gly Ser Phe Asp
305                 310                 315                 320
Gly Arg Asp Val Ala Val Lys Arg Met Leu Val Glu Phe Tyr Asp Ile
                325                 330                 335
Ala Ser His Glu Val Gly Leu Leu Gln Glu Ser Asp Asp His Asn Asn
            340                 345                 350
Val Ile Arg Tyr Phe Cys Arg Glu Gln Ala Ala Gly Phe Leu Tyr Ile
        355                 360                 365
Ala Leu Glu Leu Cys Pro Ala Ser Leu Gln Asp Leu Ile Glu Arg Pro
    370                 375                 380
Gly Asp Tyr Pro Gln Leu Val Gln Gly Gly Leu Asp Met Pro Asp Ile
385                 390                 395                 400
Leu Arg Gln Ile Ile Ala Gly Val Arg Tyr Leu His Ser Leu Lys Ile
                405                 410                 415
Val His Arg Asp Leu Lys Pro Gln Asn Ile Leu Val Ala Met Pro Arg
            420                 425                 430
Gly Arg Thr Gly Ser Arg Ser Leu Arg Leu Leu Ile Ser Asp Phe Gly
        435                 440                 445
Leu Cys Lys Lys Leu Asp Asp Asn Gln Ser Ser Phe Arg Ala Thr Thr
    450                 455                 460
Ala His Ala Ala Gly Thr Ser Gly Trp Arg Ala Pro Glu Leu Leu Val
465                 470                 475                 480
Asp Asp Asp Asn Arg Ser Ala Ile Gln Gly Gly Glu Ser Gln His Thr
                485                 490                 495
Glu Ser Ser Glu Pro Ala Val Val Asp Pro Gln Thr Asn Arg Arg Ala
            500                 505                 510
Thr Arg Ala Ile Asp Ile Phe Ser Leu Gly Cys Val Phe Tyr Tyr Val
        515                 520                 525
Leu Thr Arg Gly Tyr Ser Ser Leu
    530                 535
```

<210> 38105
<211> 371
<212> PRT
<213> A.fumigatus

<400> 38105
Phe Asn Asp Ala Ser Ala Leu Ser Ser Met Ala Leu Ala Gly Pro Gly
1 5 10 15
Arg Ala Val Arg Ala Arg Pro Ala Gln Ala Ser Ser Ser Ser Ala Gly
20 25 30
Leu Ala Pro Gln Leu His Ala Arg Ser Leu Gln Asp Trp Glu Val Glu
35 40 45
Asp Phe Val Leu Leu Ala Thr Val Asp Gly Ser Ile His Ala Arg Asp
50 55 60
Arg Arg Thr Gly Ala Ala Arg Trp Ala Leu Glu Val Pro Ser Ser Pro
65 70 75 80
Met Val Glu Ser Ile Tyr His Arg Ala Asn Arg Ser Ser Phe Asp Arg
85 90 95
Ala Gln Pro Glu Asp Asp Phe Leu Trp Ile Val Glu Pro Ser Gln Asp
100 105 110
Gly Asn Leu Tyr Ile Tyr Ser Pro Gly Pro Asp Ala Gly Leu Gln Lys
115 120 125
Leu Gly Leu Thr Val Lys Glu Leu Val Glu Gln Thr Pro Tyr Ser Gly
130 135 140
Thr Asp Pro Ala Val Thr Tyr Thr Ala Arg Lys Glu Thr Thr Leu Tyr
145 150 155 160
Thr Val Asp Ala Arg Thr Gly Asn Ile Leu Gln Val Phe Ser Ser Arg
165 170 175
Gly Pro Ile Thr Ser Gly His Gly Cys Arg Lys Val Asp Gly Phe Asp
180 185 190
Leu Glu Ala Glu Glu Cys Asp Thr Pro Ser Gly Thr Leu Val Leu Gly
195 200 205
Arg Val Glu Tyr Ala Val Ala Ile Gln Asn Thr Glu Thr Gly Asp Pro
210 215 220
Ile Cys Thr Leu Lys Tyr Ser Glu Trp Thr Ala Asn Asn Arg Asp Met
225 230 235 240
Asp Leu Gln Ser Gln Tyr Phe Arg Thr Met Asp Gln Ser His Ile Tyr
245 250 255
Ser Met His Asp Gly Val Val Leu Gly Phe Asp His Ser Arg Met Asp
260 265 270
Arg Pro Arg Tyr Thr Gln Arg Phe Ser Ser Pro Val Val Arg Val Phe
275 280 285
Asp Val Ala Arg Pro Ile Asn Val Glu Ser Pro Glu Ala Ala Thr Pro
290 295 300
Leu Val Leu Leu Ser Gln Pro Leu Gln Pro Pro Asp Pro Asp Tyr Gly
305 310 315 320
Ser Leu Asp Asp Arg Asp Ala Arg Val Phe Val Asp Cys Thr Ser Ala
325 330 335
Gly Gly Trp Phe Ala Met Ser Glu Glu Thr Leu Pro Ser Arg Asp Arg
340 345 350
Thr Arg Gln Asn Gly Pro Val Phe Thr Arg Lys Thr Thr Cys Gly Met
355 360 365
Ala Ser Leu
370

<210> 38106
<211> 183
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (17)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38106
Ser Arg Ser Met Leu Leu Ser Asp Pro Phe Ala Thr Gly Lys Leu Met
1 5 10 15
Xaa Gly Ser Phe Ile Ala Phe Arg Leu Phe Thr Asp Leu Phe Pro Arg
20 25 30
Pro Asp Ala Ser Ala Val Leu Met His Pro Phe Phe Trp Asn Pro Ser
35 40 45
Asp Arg Leu Ser Phe Leu Cys Asp Val Ser Asp His Phe Glu Phe Glu
50 55 60
Pro Arg Asp Pro Pro Ser Asp Ala Leu Leu Cys Leu Glu Ser Val Ala
65 70 75 80
Cys Arg Val Met Gly Pro Glu Met Asp Phe Leu Arg Leu Leu Pro Lys
85 90 95
Asp Phe Lys Asp Asn Leu Gly Lys Gln Arg Lys Tyr Thr Gly Ser Lys
100 105 110
Met Leu Asp Leu Leu Arg Ala Leu Arg Asn Lys Arg Asn His Tyr Asn
115 120 125
Asp Met Pro Ala His Leu Lys Ala His Ile Gly Gly Leu Pro Glu Gly
130 135 140
Tyr Leu Asn Phe Trp Thr Val Arg Phe Pro Ser Leu Leu Met Ser Cys
145 150 155 160
His Ser Val Ile Val Glu Leu Arg Leu Thr Lys Ile Asp Arg Phe Lys
165 170 175
Arg Tyr Phe Thr Pro Val Glu
180

<210> 38107
<211> 89
<212> PRT
<213> A.fumigatus

<400> 38107
Phe Gln Ser Asn Ile Lys Glu Ala Ser Arg Leu Leu Ala Thr Glu Ile
1 5 10 15
Ala Asn Tyr Val Val Met Val Val Thr Leu Leu Gln Gln Ser Asn Phe
20 25 30
Met Arg Gly Asp Ile Val Lys Leu Asn Gln His Ala Phe Asp Arg Asn
35 40 45
Ile Pro Thr Ile Glu Gly Ser Thr Val His Asp Gly Ser Val Ala Thr
50 55 60
Met Ala Gln Asn Asn Val Thr Glu Tyr Pro Glu Thr Thr Asn Leu Lys
65 70 75 80
Asn Thr Val His Phe Asn Asn Ile Val
85

<210> 38108
<211> 598
<212> PRT
<213> A.fumigatus

<400> 38108
Leu Trp Leu Gly Ser Arg Gly Phe Tyr Ser Leu Arg Tyr Gly Tyr Ala

```
1               5                   10                  15
His Val Trp His Ser Ala Phe Ala Arg Ile His Ser Leu Leu Arg Leu
            20                  25                  30
Thr Leu Thr Ile Gly Ser Phe Leu Pro Ile Thr Leu Glu Gln Met Ala
        35                  40                  45
Arg Asp Arg Gly Val Leu Phe Ser Asp Lys Val Thr Pro Cys Ser Ala
    50                  55                  60
Thr Leu Asn Asp Pro Ser Arg Thr Ser Ile Gln Ala Arg Trp Thr Leu
65                  70                  75                  80
Ser Ser Arg Tyr Asp Ala Gly Arg Pro Thr Val Ala Asn Gln Cys Val
                85                  90                  95
Val Tyr Ile Phe Gly Val Glu Ile Asn Thr Ala Ser Phe Ala Met Tyr
            100                 105                 110
Thr Phe Ser Val Ser Val Phe Ile Gln Ala Ile Leu Ile Ile Ser Met
        115                 120                 125
Ser Gly Ala Ala Asp His Gly Ser His Arg Lys Leu Leu Leu Met Ala
    130                 135                 140
Phe Ala Val Ile Gly Ser Val Ser Thr Met Leu Phe Leu Gly Val Val
145                 150                 155                 160
Pro Lys Ile Tyr Met Val Gly Ala Val Ile Ala Val Ile Ala Asn Thr
                165                 170                 175
Cys Phe Gly Ala Ser Phe Val Leu Leu Asn Ser Phe Leu Pro Leu Leu
            180                 185                 190
Val Arg His His Pro Ser Val Leu Arg Ser Ala Arg Glu Pro Arg Pro
        195                 200                 205
Ala Leu Asp Asp Ser Arg Ala Gln Glu Gly His Ser Asp Thr Thr Asn
    210                 215                 220
Gly Ile Glu His Gly Ile Glu Ser Asn Val Thr Ser Pro Leu Leu His
225                 230                 235                 240
Ala Arg Gln Gly Asn Gly Glu Asn Ala Glu Ala Asp Met His Pro Ala
                245                 250                 255
Thr His Ile Thr Val Ser Gln Glu Leu Lys Val Ser Thr Arg Ile Ser
            260                 265                 270
Ser Phe Gly Ile Gly Ile Gly Tyr Ile Gly Ala Ile Ile Leu Gln Ile
        275                 280                 285
Val Cys Ile Leu Val Val Ile Ala Thr Asn Gln Thr Thr Tyr Ser Leu
    290                 295                 300
Arg Leu Val Leu Phe Leu Ile Gly Leu Trp Trp Phe Ile Phe Ser Ile
305                 310                 315                 320
Pro Ala Ala Leu Trp Leu Arg Ser Arg Pro Gly Pro Pro Leu Ala Thr
                325                 330                 335
Thr His His Gly Lys His Thr Arg Ser Trp Ile Gly Tyr Met Ala Tyr
            340                 345                 350
Ser Trp Lys Ser Leu Tyr Arg Thr Ala Val Arg Thr Arg His Leu Lys
        355                 360                 365
Asp Ile Leu Leu Phe Leu Ala Ala Trp Leu Leu Leu Ser Asp Gly Ile
    370                 375                 380
Ala Thr Val Ser Gly Thr Ala Val Leu Phe Ala Lys Thr Gln Leu Asn
385                 390                 395                 400
Met Gln Pro Ala Ala Leu Gly Leu Ile Asn Val Ile Ala Met Val Ala
                405                 410                 415
Gly Val Leu Gly Ala Phe Ser Trp Gly Ser Phe Ser Arg Val Phe Asn
            420                 425                 430
Leu Ser Ala Ser Gln Thr Ile Ile Ala Cys Ile Leu Leu Phe Glu Leu
        435                 440                 445
Val Pro Leu Tyr Gly Leu Leu Gly Phe Ile Pro Ala Ile Lys Ser Leu
```

```
    450                 455                 460
Gly Phe Leu Gly Leu Gln Gln Pro Trp Glu Met Phe Pro Leu Gly Ile
465                 470                 475                 480
Val Tyr Gly Leu Val Met Gly Gly Leu Ser Ser Tyr Cys Arg Ser Phe
                485                 490                 495
Phe Gly Glu Leu Ile Pro Pro Gly Asn Glu Ala Ala Phe Tyr Ala Leu
            500                 505                 510
Tyr Ala Ile Thr Asp Lys Gly Ser Ser Ile Phe Gly Pro Thr Ile Val
        515                 520                 525
Gly Ile Ile Thr Asp Arg Tyr Gly Glu Ile Arg Pro Ala Phe Val Phe
    530                 535                 540
Leu Ala Ile Leu Ile Phe Leu Pro Leu Pro Leu Met Leu Leu Val Asp
545                 550                 555                 560
Val Glu Arg Gly Lys Arg Asp Ala Leu Ala Leu Ala Ala Glu Leu Gln
                565                 570                 575
Pro Ser Gly Ala Gln Thr Tyr Gly Thr Leu Pro Thr Asn Glu Asp Arg
            580                 585                 590
Ala Pro Pro Ser Glu Leu
        595
```

<210> 38109
<211> 144
<212> PRT
<213> A.fumigatus

<400> 38109

```
Glu Asn Leu Arg Gln Gln Thr Asn Gly His Cys Thr Pro Pro Asn Asp
1               5                   10                  15
Val Pro Thr Ser Tyr Ile Leu Leu Leu Ser Leu Pro Ser Arg Ser Ser
            20                  25                  30
Asp Ile Ser Ala Thr Met Asn Thr Ala Arg Val Ala Arg Leu Gly Leu
        35                  40                  45
Arg Ala Thr Gln Gln Phe Ser Val Pro Arg Thr Ala Ala Leu Asn Gly
    50                  55                  60
Leu Arg Thr Tyr Ala Thr Pro Ala Gln Asn Val Lys Pro Pro Val Ala
65                  70                  75                  80
Leu Phe Gly Val Asp Gly Thr Tyr Ala Thr Ala Leu Val Trp Leu Ala
                85                  90                  95
Phe Leu Pro Gly Leu Ser Phe Asn Ala Leu Arg Ile Trp Ser Gln Ser
            100                 105                 110
Ala Phe Phe Ser Arg Ser Val Asp Pro Ala Pro Leu Ser Pro Pro Ala
        115                 120                 125
Asn Arg Val Lys Met His Ile Val His Pro Gly Ile Pro Lys Gly His
    130                 135                 140
```

<210> 38110
<211> 135
<212> PRT
<213> A.fumigatus

<400> 38110

```
Tyr Thr Ala Ser Ala Lys Ser Ser Ala Leu Asp Gln Thr Ser Lys Ala
1               5                   10                  15
Leu Ser Ser Leu Ala Gln Thr Phe Lys Ala Asp Arg Lys Leu Thr Ser
            20                  25                  30
Ile Ile Ala Ala Pro Thr Leu Ser Ala Ser Asp Lys Gln Gln Ile Ile
```

```
        35                  40                  45
Gln Glu Leu Gln Lys Ile Ala Gly Asn Asp Lys Gly Asp Ile Ile Lys
    50                  55                  60
Asn Phe Leu Gln Thr Leu Ala Glu Asn Asn Arg Leu Gly Leu Leu Glu
65                  70                  75                  80
Gly Ile Cys Gln Lys Phe Glu Thr Leu Met Gly Ala His Arg Gly Glu
                85                  90                  95
Met Glu Val Thr Ile Thr Ser Ala Gln Val Arg Phe Asp Tyr Cys Val
            100                 105                 110
Ile Met Ser Asp Leu Leu Leu Thr Leu Val Phe Leu Pro Gly Thr Arg
        115                 120                 125
Gln Gln Asp His Gln Pro Pro
    130                 135
```

<210> 38111
<211> 86
<212> PRT
<213> A.fumigatus

<400> 38111

```
Trp Val Leu Thr Val Val Arg Trp Arg Leu Pro Ser Pro Val Pro Arg
1               5                   10                  15
Cys Val Leu Thr Ile Ala Leu Ser Cys Arg Thr Cys Cys Leu His Ser
            20                  25                  30
Ser Ser Phe Gln Glu Leu Asp Asn Lys Thr Ile Asn Arg Leu Glu Lys
        35                  40                  45
Ala Val Ser Lys His Glu Leu Ser Gln Gly Lys Lys Leu Lys Ile Val
    50                  55                  60
Thr Lys Val Arg Thr Leu Leu Tyr Ser Ile Ile His Asp His Leu Ala
65                  70                  75                  80
Asn Val Cys Val Thr Gly
                85
```

<210> 38112
<211> 364
<212> PRT
<213> A.fumigatus

<400> 38112

```
Val Asp Phe Ser Val Phe Gln Ala Val Ala Lys Ala Arg Arg Thr Ser
1               5                   10                  15
Met Leu Gly Lys Trp Phe Pro Glu Asn Glu Thr Asp His Glu Ile Leu
            20                  25                  30
Trp Gly Ile Lys Asp Ala Gln Pro Tyr Val Lys Asp Ala Phe Gln Ser
        35                  40                  45
Pro Tyr Arg Gln Arg Arg Glu Lys Cys Asp Tyr Pro Cys His Lys Gly
    50                  55                  60
Thr Lys Phe Ala Ala Trp Tyr Ala Phe Asp Glu Gly Asp Gly Ile Pro
65                  70                  75                  80
Pro Gly Glu Cys Ala Val Val Arg Phe Arg Phe Ser Arg Lys Asn Glu
                85                  90                  95
Gln Phe Ile Asp Glu Glu Val Leu Asp Asp Thr Ile Glu Gln Arg Arg
            100                 105                 110
Ala Glu Ala Asp Asp Phe Tyr Tyr Arg Ile Ser Pro Leu Pro Met Ser
        115                 120                 125
Asp Asp Leu Arg Asn Val Gln Arg Gln Ala Phe Ala Gly Met Met Trp
```

```
    130                 135                 140
Thr Lys Gln Phe Tyr His Phe Ile Trp Asp Gln Trp Ala Asn Gly Asp
145                 150                 155                 160
Pro Gly Met Ile Pro Pro Pro Pro Gly Arg Lys His Val Arg Asn Gln
                165                 170                 175
Gln Trp Lys His Leu Tyr Ile Asp Asp Ile Leu Ser Met Pro Asp Ser
            180                 185                 190
Trp Glu Tyr Pro Phe Phe Ala Ala Trp Asp Thr Ala Phe His Cys Ile
        195                 200                 205
Pro Leu Ala Met Ile Asp Pro Asp Phe Ala Lys Lys Gln Leu Asp Leu
    210                 215                 220
Leu Thr Arg Glu Trp Tyr Met His Pro Asn Gly Gln Leu Ala Ala Tyr
225                 230                 235                 240
Glu Trp Asn Phe Gly Asp Val Asn Pro Pro Val His Ala Trp Ala Val
                245                 250                 255
Phe Arg Thr Phe Lys Ile Glu Arg Lys Met Tyr Gly Arg Gln Asp Leu
            260                 265                 270
Asp Phe Leu Glu Arg Val Phe Gln Lys Leu Leu Leu Asn Phe Thr Trp
        275                 280                 285
Trp Val Asn Arg Lys Asp Ser Glu Gly Lys Asn Val Phe Glu Gly Gly
    290                 295                 300
Phe Leu Gly Leu Asp Asn Ile Gly Leu Phe Asn Arg Ser Glu Pro Leu
305                 310                 315                 320
Pro Thr Gly Gly Val Leu Glu Gln Ala Asp Ser Thr Gly Trp Met Ala
                325                 330                 335
Phe Tyr Cys Leu Cys Met Leu Asn Ile Ala Leu Glu Leu Ala Lys His
            340                 345                 350
Arg Arg Thr Tyr Glu Asp Ser Glu Ser Thr Phe Tyr
        355                 360
```

<210> 38113
<211> 268
<212> PRT
<213> A.fumigatus

```
<400> 38113
Gln Leu Ile Arg His Ser Phe Tyr Tyr Asp Ala Ile Ser Tyr Gly Glu
1               5                   10                  15
Pro Trp Thr Gln Gln Leu Pro Val Arg Ser Leu Val Gly Leu Ile Pro
            20                  25                  30
Leu Tyr Ala Val Leu Thr Leu Glu Pro Glu Leu Ile Asn Gln Phe Pro
        35                  40                  45
Ser Phe Lys Lys Arg Met Glu Trp Phe Ile Glu Asn Arg Gln Asp Val
    50                  55                  60
Ala Glu Arg Asn Ile Ala Ser Met Lys Arg Arg Gly Lys Asp Asp Arg
65                  70                  75                  80
Leu Leu Leu Ser Leu Val Ser Lys Asp Arg Leu Glu Lys Ile Leu Lys
                85                  90                  95
Arg Met Leu Asp Glu Thr Glu Phe Leu Ser Lys His Gly Val Arg Ser
            100                 105                 110
Met Ser Lys Tyr His Glu Lys His Pro Tyr Ser Met Asp Val Asn Gly
        115                 120                 125
Gln Thr Phe Arg Val Gly Tyr Val Pro Gly Asp Ser Asp Ser Gly Leu
    130                 135                 140
Phe Gly Gly Asn Ser Asn Trp Arg Gly Pro Val Trp Leu Cys Val Asn
145                 150                 155                 160
```

```
Phe Leu Leu Val Glu Ser Leu Leu Arg Phe Tyr Met Phe Tyr Gly Asp
                165                 170                 175
Ser Phe Gln Val Glu Cys Pro Thr Gly Ser Gly Asp Tyr Met His Leu
            180                 185                 190
Gly His Val Ala Glu Glu Ile Gln His Arg Leu Gln His Leu Phe Ala
        195                 200                 205
Arg Asn Asp Gln Gly Arg Arg Ala Val Asn Asp Gly Ser Asp Leu Leu
    210                 215                 220
Asp Tyr Asp Glu His Trp Lys Asp Tyr Met Trp Phe His Glu Phe Phe
225                 230                 235                 240
Asp Gly Asp Thr Gly Arg Gly Leu Gly Ala Ser His Gln Cys Gly Trp
                245                 250                 255
Thr Gly Leu Ile Ala Lys Val Ile His Asp Thr Gly
            260                 265
```

<210> 38114
<211> 161
<212> PRT
<213> A.fumigatus

<400> 38114

```
Glu Arg Leu Thr Asn Val Asp Gly Leu Ala Ser Ser Pro Arg Ser Ser
1               5                   10                  15
Thr Ile Pro Gly Lys Phe Ile Phe Gly Ser Leu Lys Leu Pro Ser Ile
            20                  25                  30
His Thr Ser Asn Leu Leu Cys Arg Ile Asn Cys Arg Leu Pro His Thr
        35                  40                  45
Pro Arg Ser Pro Phe Ala Ala Ala Ser His Tyr Phe Asp Asp Ile Phe
    50                  55                  60
Thr Arg Ser Gly Arg Pro Arg Ser Ser Arg Lys Pro Ser Phe Arg Arg
65                  70                  75                  80
Ser Ser Thr Thr Arg Ser Ile Gly Asn Arg Ser Asp Phe Glu Ser Thr
                85                  90                  95
Phe Ala Gly Ala Glu Thr Pro Ala Ala Asp Ile Leu Ser Glu Asp Glu
            100                 105                 110
Gln Asp His Arg Val Pro Arg Asn Gly Val Asp Glu His Val Ser Asn
        115                 120                 125
Tyr Val Ala Ser Gln Leu Gln Arg Val Arg Ser Ser Ala Ser Ile Gly
    130                 135                 140
Ala Tyr Glu Asp Glu Phe Glu Ala Gln Ala Asp Arg Thr Pro Asn Gly
145                 150                 155                 160
His
```

<210> 38115
<211> 471
<212> PRT
<213> A.fumigatus

<400> 38115

```
Phe Ser Phe Thr Glu Leu Leu Ala Glu Gln Gln Leu Ser Asp Leu Leu
1               5                   10                  15
Pro Pro Ser Leu Arg Tyr Leu Leu Ala Ile Ala Thr His Arg His Pro
            20                  25                  30
Arg Tyr Leu Leu Arg Ile Leu Asn Ser Tyr Asp Glu Val Tyr Ala Leu
        35                  40                  45
```

```
Leu Ser Leu Ile Val Glu Arg Tyr Tyr Leu Arg Thr Phe Gly Gly Ser
    50                  55                  60
Phe Thr Glu Asn Phe Tyr Ser Leu Lys Arg Glu Arg Val Leu Arg Thr
65                  70                  75                  80
Lys Asn Gly Glu Ile Pro Arg Ala Gln Leu Gly Ala Pro Gly Pro Val
                85                  90                  95
Arg Glu Ser Leu Lys Leu Arg Ser Ser Asp Val Trp Lys Asn Leu Phe
            100                 105                 110
Val Met Val Gly Ile Pro Tyr Leu Lys Arg Lys Leu Asp Glu Gly Tyr
        115                 120                 125
Asp Ile His Ala Ala Pro Gln Ala Ser Leu Ile Leu Gly Gly Gly Pro
    130                 135                 140
Arg Tyr Asn Pro Ser Asp Asp Leu Pro Pro Arg Pro Thr Ile Arg Gln
145                 150                 155                 160
Arg Leu Met Tyr Tyr Tyr Lys Trp Phe Leu Arg Asn Val Tyr Pro Ser
                165                 170                 175
Val Asn Ala Ala Tyr Tyr Phe Ser Ile Leu Ala Phe Asn Leu Ala Tyr
            180                 185                 190
Leu Phe Asp Asn Thr Lys Tyr Ser Ser Pro Phe Leu Trp Leu Ile Gly
        195                 200                 205
Thr Arg Ile Arg Arg Leu Gly Ala Ala Asp His Arg Ala Ile Ala Glu
    210                 215                 220
Val Leu Asp Ala Lys Pro Ser Ala Ser Ala Ala Gly Ala Arg Ser Arg
225                 230                 235                 240
Pro Gly Ser Gly Leu Met Gly Ile Leu Ser Pro Gln Asn Leu Tyr Pro
                245                 250                 255
Gln Leu Leu Ala Ser Met Arg Tyr Phe Ile Pro Ala Ser Ile Phe Ala
            260                 265                 270
Leu Lys Phe Leu Glu Trp Trp His Ala Ser Asp Phe Ser Arg Gln Leu
        275                 280                 285
Ala Arg Lys Ala Thr Glu Val Leu Asp Leu Pro Ala Pro Val Val Asn
    290                 295                 300
Gly Met Val Pro Pro Ser Glu Arg Ile Lys Lys Val Asp Ser Arg Lys
305                 310                 315                 320
Gly Lys Glu Ala Ala Ser Lys Asp Leu Lys Pro Ala Phe Lys Ser Pro
                325                 330                 335
Arg Arg Arg Met Gln Pro Pro Ile Ser Ala Thr Ser Tyr Leu Pro Ile
            340                 345                 350
Phe Thr Val Pro Leu Pro Pro Ala Asp Ser Asp Ser Ala Ser Ala Cys
        355                 360                 365
Pro Ile Cys Leu Asn Thr Leu Thr Asn Pro Thr Ala Cys Gln Thr Gly
    370                 375                 380
Tyr Val Phe Cys Tyr Ala Cys Ile Phe Arg Trp Leu Asn Gly Glu His
385                 390                 395                 400
Gln Arg Gln Leu Asp Phe Met Asn Gly Glu Ser Ala Gly Ala Ala Trp
                405                 410                 415
Glu Asp Glu Asn Glu Asp Asn Glu Asp Gly Ala Lys Ser Arg Glu Glu
            420                 425                 430
Gly Ser Ala Glu Lys Lys Val Ser Arg Glu Gly Lys Trp Glu Ser Gly
        435                 440                 445
Lys Gly Arg Cys Pro Val Thr Gly Arg Arg Val Leu Gly Gly Thr Glu
    450                 455                 460
Gly Leu Arg Arg Val Leu Ile
465                 470
```

<210> 38116

<211> 79
<212> PRT
<213> A.fumigatus

<400> 38116
Leu Thr Thr Val Phe Thr Met Glu Tyr Leu Pro Ser Leu Gln Gln Glu
1 5 10 15
Phe Asp Glu Leu Lys Pro Ser Leu Phe Gly Lys Arg Thr Asp Leu Arg
20 25 30
Arg Leu Asp Ser Arg Thr Ser Thr Asp Ser Val Ser Gln Asn Cys Ser
35 40 45
Arg Ser Ser Ser Ser Gln Ile Ser Cys Leu Leu His Tyr Asp Ile Ser
50 55 60
Ser Arg Ser Leu His Ile Val Ile Leu Ala Ile Tyr Tyr Glu Phe
65 70 75

<210> 38117
<211> 91
<212> PRT
<213> A.fumigatus

<400> 38117
Phe Gly Gly Thr Val Gly Pro Ser Gln Ile Pro Ser Ser Arg Gly Arg
1 5 10 15
Thr Arg Asn Phe Gly Ala Gly Phe Met Glu Cys Ile Gln Pro Cys Ser
20 25 30
Ala Met Glu Phe Ser Trp Val Ser Cys Lys Asn His Ser Lys Phe Asn
35 40 45
Asn Ile Lys Asp Tyr Thr Arg Pro Trp Phe Ala Trp Ala Asn Ser Val
50 55 60
Phe Ala Gln Thr Ile Leu Lys Ile Ala Ala Glu Arg Pro His Leu Ile
65 70 75 80
Phe Gly Glu Gly Ala Lys Pro Tyr Ile Val Gln
85 90

<210> 38118
<211> 137
<212> PRT
<213> A.fumigatus

<400> 38118
Ile Arg Arg Ile Arg Gln Ser Thr Arg Asp Pro Gly Asn Gly Cys Ala
1 5 10 15
Asp Thr Ile Thr Arg Asn Ile His Trp Thr Ile Lys Thr Ile Thr Ile
20 25 30
Pro Thr Thr Gln Cys Asn Asp Ala Thr Ser Ser Trp Gln Lys Arg Ser
35 40 45
Ser Ala Pro Thr Ile Ser Gln Pro Arg His Ser Leu Thr Ser Ser Thr
50 55 60
Thr Pro Thr His His His Gln Glu Ala Ala Thr Ser Pro Thr Ile Ala
65 70 75 80
Ser Ala Phe Gly Gln Ser Pro Gly Asn Ala Lys Ala Pro Ser Thr Arg
85 90 95
Gln Ala Thr Pro Ser Thr Asn Gln Asn Ser Pro Thr Thr Met Ala Thr
100 105 110
Pro Trp Thr Thr Ala Arg Ser Gly Ser Pro Leu Ala Glu Ser Thr Cys

```
        115                 120                 125
Gly Arg Pro Arg Thr Pro Pro Gln Ser
    130                 135

<210> 38119
<211> 182
<212> PRT
<213> A.fumigatus

<400> 38119
Ser Ile His Leu Ala Asn Ile Asn Arg Lys Ser Gly Tyr Pro Ile Val
1               5                   10                  15
Asn Met Gly Tyr Asp Thr Lys Thr Pro Lys Tyr Cys Cys Gly Ser Val
            20                  25                  30
Val Asp Asn Gln Cys Lys Asp Gly Asp Pro Phe Thr Ile Gly Asn Gly
        35                  40                  45
Ala Val Ile Pro Glu Val Ala Ala Leu Ala Gly Tyr Val Lys Ala Ser
    50                  55                  60
Ala Ile Thr Asp Thr Thr Cys Ser Asn Ser Leu Ser Ile Thr Thr Ser
65                  70                  75                  80
Ser Asn Ser Ala Ser Thr Ala Ile Thr Ala Cys Pro Thr Ser Thr Gly
                85                  90                  95
Asp Asn Thr Ser Pro Ser Ser His Asp Leu Ala Ile Gly Val Gly Val
            100                 105                 110
Gly Val Pro Leu Gly Val Ile Ala Leu Ala Ser Ile Val Trp Ala Leu
        115                 120                 125
Trp Glu Arg Arg Arg Arg Leu Leu Val Asn Ile Ser Ile Asn Ile Trp
    130                 135                 140
Arg Thr Ala Tyr Ile Asn His Ile Leu Arg Ser Ser Arg Leu Asp Lys
145                 150                 155                 160
Gln Gly Arg His Arg Ser Trp Thr Ala Thr Gly Val Gln Asn Glu Leu
                165                 170                 175
Asp Ile Gly Ser Val Arg
            180

<210> 38120
<211> 60
<212> PRT
<213> A.fumigatus

<400> 38120
Thr Leu Ala Ala Ala Pro Ser Ser Pro Val Val Lys Thr Leu Phe Thr
1               5                   10                  15
Asn Ser Val Leu Pro Ala Arg Ile Phe Ala Asn Gly Pro Leu Arg Ala
            20                  25                  30
Lys Glu Ala Thr Gly Tyr Ile Ser Ser Lys Tyr Pro Val Ile Val Ser
        35                  40                  45
Asp Cys Arg Ile Asp Met Glu Thr Asn Trp Ser Asn
    50                  55                  60

<210> 38121
<211> 69
<212> PRT
<213> A.fumigatus

<400> 38121
```

```
Asp His Glu Tyr Asp Ala Val Val Val Gly Ala Gly Gly Ala Gly Leu
1               5                  10                  15
Arg Ala Ala Phe Gly Leu Ala Glu Ala Gly Phe Asn Thr Ala Cys Val
            20                  25                  30
Ser Lys Leu Phe Pro Thr Arg Ser His Thr Val Ala Ala Gln Gly Gly
        35                  40                  45
Ile Asn Ala Ala Leu Gly Lys Tyr Val Asn Glu Met Met Glu Leu Asn
    50                  55                  60
Ile Gly Arg Leu Cys
65
```

<210> 38122
<211> 86
<212> PRT
<213> A.fumigatus

<400> 38122

```
Phe Phe Phe Phe Arg Leu Asp Ala Asn Lys Met Ser Cys Ser Thr Gln
1               5                  10                  15
Thr Ala Val Ala Ala Ala Asn Arg Lys Glu Ser Arg Gly Ala His Ala
            20                  25                  30
Arg Glu Asp Tyr Pro Glu Arg Asp Asp Glu Asn Trp Met Lys His Thr
        35                  40                  45
Leu Thr Trp Gln Lys Lys Pro His Gly Glu Ile Asn Leu Gly Tyr Arg
    50                  55                  60
Ala Val Glu His Arg Thr Leu Asp Glu Asn Glu Cys Lys Ser Val Pro
65                  70                  75                  80
Pro Phe Lys Arg Val Tyr
                85
```

<210> 38123
<211> 99
<212> PRT
<213> A.fumigatus

<400> 38123

```
Glu Met Thr Leu His Leu Ala Arg Gln Ala Asn Thr Cys Thr Gly Ser
1               5                  10                  15
Lys Gln Trp Tyr Val Cys Ser Lys Gly Asn Phe Arg Gly Cys Cys Ser
            20                  25                  30
Ile Asp Pro Cys Asn Thr Gly Val Cys Pro Asp Gln Glu Ser Gln Ser
        35                  40                  45
Thr Leu Ser Thr Ser Thr Thr Ser Thr Thr Ser Lys Pro Ala Ser Thr
    50                  55                  60
Thr Thr Ala Ile Ser Pro Thr Thr Ala Ile Thr Thr Ala Pro Ser Thr
65                  70                  75                  80
Ser Ser Gln Gly Asp Ile Pro Gly Leu Ile Pro Thr Arg Thr Val Thr
                85                  90                  95
Gln Ala Val
```

<210> 38124
<211> 494
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (310)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38124

```
Asn Asp Gly Val Glu Tyr Trp Ala Ile Val Leu Met Pro Ile Cys Ser
1               5                  10                  15
Met His Pro Asp Asp Trp Arg Trp His Met Tyr Asp Thr Val Lys Gly
            20                  25                  30
Ser Asp Trp Leu Gly Asp Gln Asp Ala Ile His Tyr Met Thr Arg Glu
        35                  40                  45
Ala Pro Ala Ser Val Arg Glu Leu Glu Gly Tyr Gly Cys Pro Phe Ser
    50                  55                  60
Arg Thr Glu Asp Gly Leu Ile Tyr Gln Arg Ala Phe Gly Gly Gln Ser
65                  70                  75                  80
Lys Glu Phe Gly Lys Gly Gly Gln Ala Tyr Arg Cys Cys Ala Val Ala
                85                  90                  95
Asp Arg Thr Gly His Ala Leu Leu His Thr Leu Tyr Gly Gln Ser Leu
            100                 105                 110
Arg His Asn Thr Asn Tyr Phe Ile Glu Tyr Phe Ala Leu Asp Leu Leu
        115                 120                 125
Met Glu Asp Gly Glu Cys Arg Gly Ile Ile Ala Tyr Asn Gln Glu Asp
    130                 135                 140
Gly Thr Leu His Arg Phe Lys Ala His His Thr Val Leu Ala Thr Gly
145                 150                 155                 160
Gly Tyr Gly Arg Ala Tyr Phe Ser Cys Thr Ser Ala His Thr Cys Thr
                165                 170                 175
Gly Asp Gly Met Ala Met Val Ala Arg Ala Gly Leu Pro Asn Gln Asp
            180                 185                 190
Leu Glu Phe Val Gln Phe His Pro Thr Gly Ile Tyr Gly Ala Gly Cys
        195                 200                 205
Leu Ile Thr Glu Gly Ala Arg Gly Glu Gly Gly Tyr Leu Leu Asn Ser
    210                 215                 220
Glu Gly Glu Arg Phe Met Glu Arg Tyr Ala Pro Thr Ala Lys Asp Leu
225                 230                 235                 240
Ala Ser Arg Asp Val Val Ser Arg Ser Met Thr Leu Glu Ile Arg Glu
                245                 250                 255
Gly Arg Gly Val Gly Pro Glu Lys Asp His Ile Tyr Leu Gln Leu Ser
            260                 265                 270
His Leu Pro Pro Glu Leu Leu His Glu Arg Leu Pro Gly Ile Ser Glu
        275                 280                 285
Thr Ala Ser Ile Phe Ala Gly Val Asp Val Thr Lys Gln Pro Ile Pro
    290                 295                 300
Val Leu Pro Thr Val Xaa Tyr Asn Met Gly Gly Ile Pro Thr Lys Tyr
305                 310                 315                 320
Thr Gly Glu Val Leu Thr Val Asp Glu Gln Gly Asn Asp Lys Val Val
                325                 330                 335
Pro Gly Leu Tyr Ala Cys Gly Glu Ala Ala Cys Val Ser Val His Gly
            340                 345                 350
Ala Asn Arg Leu Gly Ala Asn Ser Leu Leu Asp Leu Val Val Phe Gly
        355                 360                 365
Arg Ala Val Ser His Arg Val Arg Asp Ile Ala Thr Pro Gly Lys Ala
    370                 375                 380
His Arg Glu Leu Ser Pro Asp Ala Gly Ala Gln Ser Ile Lys Asp Leu
385                 390                 395                 400
```

```
Asp Phe Val Arg Asn Ala Asp Gly Pro Lys Ser Thr His Glu Ile Arg
                405                 410                 415
Asn Ala Met Gln Arg Ala Met Gln Ser Asp Val Ser Val Phe Arg Thr
            420                 425                 430
Gln Glu Ser Leu Asp Glu Gly Val Gln Lys Ile Thr Ala Ile Asp Lys
        435                 440                 445
Met Phe Asp Gln Val Gly Thr Lys Asp Arg Ser Met Ile Trp Asn Ser
    450                 455                 460
Asp Leu Val Glu Thr Leu Glu Leu Arg Asn Leu Leu Thr Cys Ala Tyr
465                 470                 475                 480
Val Ser Phe Gln Pro Leu Ile Phe Phe Leu Ser Val Arg Cys
                485                 490
```

<210> 38125
<211> 65
<212> PRT
<213> A.fumigatus

<400> 38125

```
Ser Val Gln Tyr Gly Cys Met Ser Gly Ser Arg Glu Pro Val Tyr Ile
1               5                   10                  15
Val Asp Val Asp Tyr Phe His His Leu Glu Thr Cys Leu Asn His Asn
            20                  25                  30
Gly Asp Leu Ala Asn Asp Ser His His Tyr Cys Ala Phe Tyr Lys Leu
        35                  40                  45
Ala Gly Arg His Pro Gly Pro His Ser Asp Ser Asn Cys Asp Ser Gly
    50                  55                  60
Cys
65
```

<210> 38126
<211> 490
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (192)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38126

```
Val Leu Gln Asp Ile Leu Leu Ala Ser Asn Arg Lys Lys Lys Asn Gln
1               5                   10                  15
Arg Leu Lys Gly Tyr Ile Arg Ala Ser Glu Gln Val Thr Glu Phe Gln
            20                  25                  30
Ser Leu Asp Lys Val Arg Val Pro Asp His Ala Ala Val Leu Gly Thr
        35                  40                  45
Asp Leu Val Glu His Leu Val Asp Gly Gly Asp Leu Leu Asn Thr Leu
    50                  55                  60
Ile Gln Thr Leu Leu Gly Thr Glu Asp Ala Asp Ile Arg Leu His Gly
65                  70                  75                  80
Pro Leu His Gly Val Thr Asp Leu Val Ser Arg Leu Gly Ala Ile Gly
                85                  90                  95
Val Ala Asp Glu Val Glu Val Leu Asp Gly Leu Gly Thr Ser Val Arg
            100                 105                 110
Ala Gln Leu Thr Val Ser Leu Ala Arg Gly Gly Asp Val Thr Asp Thr
```

```
        115                 120                 125
Val Arg Asn Gly Thr Ala Glu Asp Asp Glu Val Glu Glu Arg Val Gly
    130                 135                 140
Thr Gln Thr Val Gly Thr Val Asp Gly Asp Thr Gly Gly Leu Thr Thr
145                 150                 155                 160
Gly Val Gln Thr Gly Asp Asn Leu Val Val Thr Leu Leu Ile His Arg
                165                 170                 175
Gln Asp Leu Thr Gly Val Leu Gly Gly Asp Thr Thr His Val Val Xaa
            180                 185                 190
Asp Gly Gly Gln Asp Gly Asp Gly Leu Leu Gly Asp Val Asn Thr Ser
        195                 200                 205
Glu Asp Gly Cys Ser Leu Arg Asp Thr Gly Gln Thr Leu Val Gln Lys
    210                 215                 220
Leu Arg Gly Gln Val Ala Gln Leu Gln Val Asp Val Val Leu Leu Arg
225                 230                 235                 240
Thr Asn Thr Thr Ala Leu Ala Asn Leu Glu Gly His Gly Thr Gly Asp
                245                 250                 255
Asp Val Ala Arg Arg Gln Ile Leu Gly Gly Gly Gly Val Thr Leu His
            260                 265                 270
Glu Thr Leu Thr Leu Gly Val Glu Gln Ile Thr Thr Leu Thr Thr Ser
        275                 280                 285
Thr Leu Gly Asp Gln Ala Thr Ser Thr Ile Asn Thr Ser Trp Val Glu
    290                 295                 300
Leu Asn Glu Leu Lys Ile Leu Val Gly Gln Thr Ser Thr Gly Asp His
305                 310                 315                 320
Gly His Thr Val Thr Ser Ala Ser Val Gly Arg Cys Ala Ala Glu Val
                325                 330                 335
Gly Thr Ser Val Ser Thr Ser Gly Gln Asn Cys Val Val Gly Leu Glu
            340                 345                 350
Ala Val Gln Gly Thr Val Leu Leu Val Val Gly Asp Asp Thr Thr Ala
        355                 360                 365
Leu Thr Ile Leu His Gln Gln Ile Lys Ser Glu Val Leu Asp Glu Val
    370                 375                 380
Val Ser Val Val Ala Gln Arg Leu Ser Val Glu Ser Val Gln Lys Ser
385                 390                 395                 400
Val Ala Gly Thr Ile Ser Asp Gly Ala Ala Thr Val Gly Leu Ser Thr
                405                 410                 415
Leu Ala Glu Phe Leu Gly Leu Thr Thr Glu Arg Thr Leu Val Asp Lys
            420                 425                 430
Ala Ile Leu Gly Thr Gly Glu Gly Ala Ser Val Ala Leu Glu Leu Thr
        435                 440                 445
Asn Thr Ser Arg Ser Leu Ser Gly His Val Val Asp Gly Val Leu Val
    450                 455                 460
Thr Lys Pro Ile Gly Thr Leu His Gly Val Val His Val Pro Ser Pro
465                 470                 475                 480
Val Val Gly Met His Ala Ala Asn Arg His
                485                 490
```

<210> 38127
<211> 297
<212> PRT
<213> A.fumigatus

<400> 38127

```
Leu Arg Leu Ile Ser Pro Gln Val Phe Gln Pro Gly Leu Leu Ser His
1               5                   10                  15
```

```
Pro Gln His Asp Met Ser Pro Asp Glu Tyr Lys Leu Ser Gln Asp Val
            20                  25                  30
Leu Ile Phe Leu Ile Glu Asn Gln Asp His Phe Leu Phe Gly Met Asn
        35                  40                  45
Gly Thr Ala Ala Asp Glu Gln Thr Leu Lys Glu Val Glu Gly Gly Thr
    50                  55                  60
Thr Arg Arg Thr Thr Thr Asn Ser Asn Ile Arg Arg Ser Val Ser Ser
65                  70                  75                  80
Ala Ser Gly Gly Ala Asp Ser Phe Arg Lys Tyr Glu Asn Leu Arg Arg
                85                  90                  95
Asn Val Ser Val Ser Ser Lys His Ser Arg His Ser Asn Asn Ser Pro
            100                 105                 110
Gly Pro Val Thr Pro Thr Ser Leu Ser Gly Val Gly Val His Arg Ser
        115                 120                 125
Asn Thr Leu Pro Ser Lys Met Ser Pro Ile Ser Ser Ala Arg Tyr Gly
    130                 135                 140
Arg Val Gln Glu Ser Thr Ser Val Gln Pro Ser Gly Leu Asn Pro Ser
145                 150                 155                 160
Val Gln Asn Ser Arg Ser Ser Ser Arg Ala Pro Thr Pro Arg Glu Glu
                165                 170                 175
Thr Ser Gln Thr Thr Pro Ala Pro Pro Ser Gly Ser Asn Ala Asp Ser
            180                 185                 190
Gly Thr Ala Tyr Ile His Ser Ser Thr His Gly Pro Met Pro Lys Val
        195                 200                 205
Ala Glu Asp Arg Ala Pro Val Ala Glu Lys Pro Val Ile Gln Asp Pro
    210                 215                 220
Leu Pro Thr Leu Val Ser Ser Pro Pro Pro Pro Val Glu Thr Pro Thr
225                 230                 235                 240
Lys Glu Arg Lys Leu Ser Ser Phe Phe Thr Lys Ser Pro Pro Gln Asn
                245                 250                 255
Gly Glu Leu Lys Glu Thr Pro Ser Ala Lys Ser Pro Glu Arg Arg Ser
            260                 265                 270
Gly Phe Gln Glu Val Pro Ala Lys Val Leu Thr Val Leu Pro Cys His
        275                 280                 285
Tyr Arg Gln Pro Gln Val Asn Leu Leu
    290                 295
```

<210> 38128
<211> 207
<212> PRT
<213> A.fumigatus

```
<400> 38128
Ile Ser Leu Val Leu Tyr Ile Val Leu Thr His Ser Phe Glu Tyr Ser
1               5                   10                  15
Thr Arg Ala Leu Leu Gly Pro Ile Ser Pro Val Leu Met Thr Ser Ala
            20                  25                  30
Ser Pro Ser Pro Leu Arg Ala Ala Asn Gly Ala Ser Ser Gly Thr Val
        35                  40                  45
Pro Pro Pro Ala Met Lys Pro Ser Ala Pro Pro Val Asn Ile Leu Pro
    50                  55                  60
Thr Gln Leu Ala Arg Thr Tyr Ser Phe Val His Pro Ala Ala Leu Leu
65                  70                  75                  80
Ala Ile Leu Ala Thr Arg Phe Gln Ala Leu Val Ala Asp Pro Val Ala
                85                  90                  95
Glu Met Leu Asn Thr Leu Pro Phe Leu Ala Leu Leu Gln Val Thr Tyr
```

```
            100                 105                 110
Val Met Val Cys Leu Pro Pro Ala Gly Ser Val Leu Pro Ser Pro Pro
        115                 120                 125
Ala Ser Pro Val Ser Asp Gly Asp Glu Lys Glu Lys Glu Lys Glu Lys
    130                 135                 140
Glu Lys Glu Lys Glu Lys Glu Lys Glu Lys Glu Lys Glu Lys Glu Lys
145                 150                 155                 160
Glu Lys Glu Lys Arg Lys Leu Pro Leu Arg Ala Gly Lys Leu Pro Arg
                165                 170                 175
Lys Lys Asn Gln Thr His Ala Ala Gly Leu Ser Ala Lys Leu Thr Val
            180                 185                 190
Arg Thr Pro Leu Ser Ser Ser Leu Ser Ser Gln Phe Ile Gln Cys
        195                 200                 205
```

<210> 38129
<211> 102
<212> PRT
<213> A.fumigatus

<400> 38129

```
Arg Gly Cys Gly Gly Gln Pro Ala Leu Leu Ser Leu Ile Leu Thr Phe
1               5                   10                  15
Leu Leu Ala Thr Pro Val Leu Ser Leu Leu Leu Val Leu Phe Gly Ala
            20                  25                  30
Pro Leu Thr Thr His Asn Ala Glu Thr Val Leu Cys Ala Ala His Met
        35                  40                  45
Ala Leu Leu Ala Ser Thr Ala Leu Ile Tyr Val His Gly Val Asp Gly
    50                  55                  60
Ala Val Trp Arg Glu Val Trp Ala Phe Ala Arg Pro Ala Asp Ala Val
65                  70                  75                  80
Trp Gly Gly Ala Leu Gly Thr Ala Leu Gly Ala Trp Phe Gly Ala Val
                85                  90                  95
Pro Ile Pro Leu Asp Trp
            100
```

<210> 38130
<211> 335
<212> PRT
<213> A.fumigatus

<400> 38130

```
Lys Lys Lys Arg Ile Ser Gly Ser Ala Ser Glu Ser Ala His Ser Ser
1               5                   10                  15
Ser Leu Ser Leu Gln Ala Ala Pro Gly Glu Ser Val Val Ser Val Val
            20                  25                  30
Pro Ser Ala Thr Arg Ala Asn Glu Ala Asp Gly Glu Ala Gly Gly Ala
        35                  40                  45
Thr Pro Arg Pro Pro Asn Thr Thr Asn Ser Gly Asp Asp Ala Thr Ile
    50                  55                  60
Ile Val Ala Glu Glu Lys Pro Ala Val Gln Asn Asp Leu His Asn Ala
65                  70                  75                  80
Asp Asn Ser Leu Arg Pro His Gly Ser Arg Thr Pro Ser Met Asn Ser
                85                  90                  95
Arg Ser Ser Phe Thr Asp His Ser Asp Leu Asp Gln Thr Asp Glu Lys
            100                 105                 110
Ala Asp Arg Arg Glu His Arg Arg Ser Trp Arg Phe His Arg Ser Ser
```

```
        115                 120                 125
Lys Arg Ser Asn Glu Gln Ile Gly Leu Gly Leu Ala Ser Pro Pro Leu
    130                 135                 140
Ser Ala Ser Asn Pro Ser Ala Glu Arg Ser Thr Thr Ser Val Ala Ser
145                 150                 155                 160
Trp His Gln Ser Ser Lys Ser Ser Pro Ser Asp Leu Gln Gln Phe Ala
                165                 170                 175
Ser Glu Ser Ser Gln Gln Pro Leu Ser Leu Asp Ala Glu Ile Ser Asn
            180                 185                 190
Ser Ala Ala Pro Lys Glu Ser Ile Glu Pro Glu Lys Arg Ser Leu Phe
        195                 200                 205
Gly Lys Phe Lys Ala Lys Val Ala Gln Val Arg Asp Gly Val Arg Asp
    210                 215                 220
Pro Glu Arg Asp Arg Thr Arg Ser Pro Ala Gln Pro Asp Ser Glu Arg
225                 230                 235                 240
Pro His Ser Asn His Thr Met Ser Pro Ala Gly Lys Asp Arg Ile Ser
                245                 250                 255
Ser Gly Pro Ala Pro Ile Glu Val Pro Lys Glu Ser Arg Glu Glu Gln
            260                 265                 270
Thr Arg Ser Pro Val Ser Pro Ile Met Ser Ser Ser Gly Leu Pro Pro
        275                 280                 285
Ala Ile Pro Glu Glu Pro Arg Thr Pro Glu Ser Pro Ile Met Ser Arg
    290                 295                 300
Thr Asp Pro Asp Leu Asp Lys Glu Ala Ser Ala Ala Val Pro Ala Asp
305                 310                 315                 320
Pro Ser Asn Pro Ser His Thr Glu Ala Leu Pro Cys Arg Ala Ala
                325                 330                 335
```

Sequence Listing

<210> 38131
<211> 179
<212> PRT
<213> A.fumigatus

<400> 38131

```
Pro Arg Gly Gly Asn Ala Glu Tyr Thr Pro Leu Leu Gly Thr Pro Ala
1               5                   10                  15
Gly Asp Ile Arg Asp Gly Val Ser Ala Ala Arg Gly Val Gly Ala Ala
            20                  25                  30
Leu Ala Ala Gly Leu Ser Gly Lys Arg Arg Arg Arg Glu Gly Lys Gly
        35                  40                  45
Glu Gly Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg
    50                  55                  60
Glu Arg Glu Arg Glu Arg Glu Glu Glu Ala Pro Ala Ser Ser Gly Glu
65                  70                  75                  80
Ala Pro Pro Glu Glu Glu Pro Asp Ala Cys Gly Arg Phe Val Arg Glu
                85                  90                  95
Val Asp Gly Thr His Pro Phe Val Phe Leu Ile Val Ile Thr Val His
            100                 105                 110
Ser Met Leu Met Leu Thr Trp Leu Trp Trp Thr Ala Cys Pro Pro Leu
        115                 120                 125
Pro Asp Pro His Phe Pro Pro Arg Asp Pro Arg Pro Leu Pro Pro Pro
    130                 135                 140
Arg Ser Leu Arg Arg Pro Pro Asp Asn Ser Gln Cys Arg Asp Gly Pro
145                 150                 155                 160
Leu Arg Arg Ala His Gly Ala Pro Gly Phe Asp Gly Ala Asp Leu Arg
                165                 170                 175
```

Ala Trp Cys

<210> 38132
<211> 165
<212> PRT
<213> A.fumigatus

<400> 38132
Gly Arg Gln Arg Gly Ala Tyr Arg Gln Leu Arg Gly Gln Thr Gly Arg
1 5 10 15
Met Arg Leu Val Leu Leu Pro Gly Glu Leu Pro Arg Ser Lys Arg Glu
20 25 30
Leu Pro Leu Leu Phe Leu Phe Leu Phe Leu Phe Leu Phe Leu Phe Leu
35 40 45
Phe Leu Phe Leu Phe Leu Phe Leu Leu Leu Leu Phe Leu Leu Val Ala
50 55 60
Val Ala Tyr Arg Arg Gly Arg Arg Arg Gly Gln His Arg Pro Arg Gly
65 70 75 80
Arg Gln Thr His His His Val Cys His Leu Gln Glu Cys Gln Glu Gly
85 90 95
Glu Cys Ile Gln His Phe Arg His Gly Val Ser Asp Gln Arg Leu Glu
100 105 110
Pro Cys Ser Gln Asp Gly Gln Gln Arg Gly Gly Met His Glu Arg Val
115 120 125
Cys Ala Ser Glu Leu Arg Trp Glu Asp Ile His Gly Arg Ser Gly Gly
130 135 140
Phe His Gly Trp Arg Gly Asn Cys Ala Gly Gly Cys Ala Ile Gly Cys
145 150 155 160
Ala Glu Gly Gly Gly
165

<210> 38133
<211> 199
<212> PRT
<213> A.fumigatus

<400> 38133
Met Asn Cys Asp Asp Asn Glu Glu Asp Lys Gly Val Arg Thr Val Asn
1 5 10 15
Phe Ala Asp Lys Pro Ala Ala Cys Val Trp Phe Phe Phe Arg Gly Ser
20 25 30
Phe Pro Ala Arg Ser Gly Ser Phe Leu Phe Ser Phe Ser Phe Ser Phe
35 40 45
Ser Phe Ser Phe Ser Phe Ser Phe Ser Phe Ser Phe Ser Phe Ser Phe
50 55 60
Ser Phe Ser Phe Ser Ser Pro Ser Leu Thr Gly Glu Ala Gly Gly Glu
65 70 75 80
Gly Ser Thr Asp Pro Ala Gly Gly Arg His Thr Ile Thr Tyr Val Thr
85 90 95
Cys Arg Ser Ala Lys Lys Gly Ser Val Phe Ser Ile Ser Ala Thr Gly
100 105 110
Ser Ala Thr Ser Ala Trp Asn Arg Val Ala Lys Met Ala Ser Ser Ala
115 120 125
Ala Gly Cys Thr Asn Glu Tyr Val Arg Ala Ser Cys Val Gly Arg Ile
130 135 140

```
Phe Thr Gly Gly Ala Glu Gly Phe Met Ala Gly Gly Gly Thr Val Pro
145                 150                 155                 160
Glu Asp Ala Pro Leu Ala Ala Arg Arg Gly Glu Gly Glu Ala Glu Val
                165                 170                 175
Met Arg Thr Gly Leu Ile Gly Pro Arg Ser Ala Leu Val Glu Tyr Ser
            180                 185                 190
Lys Glu Cys Val Arg Thr Met
        195
```

<210> 38134
<211> 106
<212> PRT
<213> A.fumigatus

<400> 38134

```
Ala Pro Ala Pro Ala Pro Thr Thr Pro Ile Gln His Gln Arg Gly Lys
1               5                   10                  15
Ile Leu Thr Asn Pro Met Glu Ser Ala Gln Pro Gln Thr Thr Pro Arg
            20                  25                  30
Glu Pro Phe Pro Ala His Arg Pro Arg Arg His Gln Pro Gly Ala Gln
        35                  40                  45
Thr Pro Ile Pro Arg Ala Thr Gln Arg Arg Gln His His Ala Arg Arg
    50                  55                  60
Ser Ala Pro Ser Lys Pro Gly Ala Pro Cys Ala Arg Arg Arg Gly Pro
65                  70                  75                  80
Ser Arg His Cys Glu Leu Ser Gly Gly Arg Arg Arg Glu Arg Gly Gly
                85                  90                  95
Gly Arg Gly Arg Gly Ser Arg Gly Gly Lys
            100                 105
```

<210> 38135
<211> 674
<212> PRT
<213> A.fumigatus

<400> 38135

```
Leu Thr Pro Pro Ser Asp Pro Ser Ser Pro Val Val Lys Thr Ala Ala
1               5                   10                  15
Val Thr Pro Gly Leu Leu Ser Gly Thr Ser Arg Thr Val Tyr Leu Gly
            20                  25                  30
Asn Ile Pro Ala Glu Thr Ser Ala Glu Glu Ile Leu Asn His Val Arg
        35                  40                  45
Ser Gly Gln Ile Glu Ser Val Arg Leu Leu Pro Asp Lys Asn Cys Ala
    50                  55                  60
Phe Ile Ser Phe Leu Asp Ser Asn Ser Ala Thr His Phe His Ser Asp
65                  70                  75                  80
Ala Ile Leu Lys Lys Leu Ala Ile Lys Gly Asn Asp Ile Lys Val Gly
                85                  90                  95
Trp Gly Lys Pro Ser Gln Val Pro Thr Ser Val Ala Leu Ala Val Gln
            100                 105                 110
Gln Ser Gly Ala Ser Arg Asn Val Tyr Leu Gly Asn Leu Pro Glu Glu
        115                 120                 125
Leu Thr Glu Asp Glu Leu Arg Glu Asp Leu Gly Lys Phe Gly Pro Ile
    130                 135                 140
Asp Thr Val Lys Ile Val Arg Glu Lys Ala Ile Gly Phe Val His Phe
145                 150                 155                 160
```

```
Leu Ser Ile Ser Asn Ala Met Lys Ala Val Ser Gln Leu Pro Gln Glu
                165                 170                 175
Ala Lys Trp Gln Ala Pro Arg Arg Val Phe Tyr Gly Lys Asp Arg Cys
            180                 185                 190
Ala Tyr Val Ser Lys Thr Gln Gln Gln Asn Ala Ala Gln Phe Leu Gly
        195                 200                 205
Ile Ala Pro Gly Tyr Ala His Ile Leu Asn Ser Ala Asp Arg Asp Leu
    210                 215                 220
Ile Thr Asn Ala Leu Ala Gln Gln Ser Val Ala Ala Ala Ala Val Ala
225                 230                 235                 240
Thr Ser Ala Gly Gly Val Asn Asn Leu Gly Asn Arg Thr Ile Tyr Leu
                245                 250                 255
Gly Asn Ile His Pro Glu Thr Thr Ile Glu Glu Ile Cys Asn Val Val
            260                 265                 270
Arg Gly Gly Leu Leu His His Ile Arg Tyr Ile Pro Asp Lys His Ile
        275                 280                 285
Cys Phe Val Thr Phe Ile Asp Pro Thr Ser Ala Ala Ser Phe Tyr Ala
    290                 295                 300
Leu Ser Asn Leu Gln Gly Leu Met Ile His Asn Arg Arg Leu Lys Ile
305                 310                 315                 320
Gly Trp Gly Lys His Ser Gly Pro Leu Pro Pro Ala Ile Ala Leu Ala
                325                 330                 335
Val Ser Gly Gly Ala Ser Arg Asn Val Tyr Val Gly Asn Leu Asp Glu
            340                 345                 350
Thr Trp Thr Glu Glu Arg Leu Arg Gln Asp Phe Ser Glu Tyr Gly Glu
        355                 360                 365
Ile Glu Leu Val Asn Thr Leu Arg Glu Lys Ser Cys Ala Phe Val Asn
    370                 375                 380
Phe Thr Asn Ile Ala Asn Ala Ile Lys Ala Ile Glu Gly Met Arg Asn
385                 390                 395                 400
Arg Glu Glu Tyr Lys Arg Phe Lys Ile Asn Phe Gly Lys Asp Arg Cys
                405                 410                 415
Gly Asn Pro Pro Arg Gln Thr Gly Asn Gly Gly Gln His Gly Arg Asn
            420                 425                 430
Gly Ala Gly Leu Glu Gly Thr Gln Ser Pro Pro Pro Ala Leu Asn Asn
        435                 440                 445
Phe Gln Pro Asn Leu Ser Gln Ser Gly Ser Gln Ser Ser Pro Thr Arg
    450                 455                 460
His Ala Leu Ser Pro Ala Pro Gly Ser Thr Gly Ser Gln Asn Gly His
465                 470                 475                 480
Gln Gln Asn Arg His Pro Leu Gln Thr Val Ser Ser Pro Ser Gly Ile
                485                 490                 495
Leu Asn Val Gly Ala Asn Asn Pro Leu Thr Met Tyr Leu Asn Gln Met
            500                 505                 510
Ser Ala Gln Gln Gln Ala Gln Asp Gln Glu Asn Arg Leu Asn Asp Pro
        515                 520                 525
Met Ala Leu Ala Ala Leu Gln Ser Gln Ser Gln Pro Gln Ala Gln Gln
    530                 535                 540
Gln Ser Tyr Tyr Asn Ala Ala Ser Ser Ser Glu Leu Thr Asn Gly Ser
545                 550                 555                 560
Ile Glu Ala Pro Met His Gln Arg Lys Pro Ser Ser Gly Tyr Leu Asn
                565                 570                 575
Val Thr Asn Gly Ser Ser Gly Pro Ser His His Ala Thr Ala Ser Thr
            580                 585                 590
Ser Ser Leu Ser Val Pro Arg Ala Gln His Ser Arg Thr Val Ser Leu
        595                 600                 605
```

```
Pro Ser Phe Ser Gln Glu Pro Phe Gly Pro Val Ser Ser Gln Pro Gly
    610                 615                 620
His Gly Arg Ser Gly Val Ala His Gln Pro Gln Ala Ser Phe Ser Ser
625                 630                 635                 640
Phe Ser Ser Ala Leu Gly Gly Leu Asn His Ala Gly Phe Gly Leu Ala
                645                 650                 655
Ile Gln Asn Glu Ser Ser Leu Pro Gly Trp Ala Glu Glu Glu Ile Gly
            660                 665                 670
Ala Lys
```

<210> 38136
<211> 94
<212> PRT
<213> A.fumigatus

<400> 38136

```
Pro Ile Leu Thr His Thr Ala Glu Asn Asn Pro Ala Asn Asp Tyr Pro
1               5                   10                  15
Asp Glu Asp Leu Ser Trp Asp Asp Glu Glu Asp Asp Pro Ala Ala Ile
            20                  25                  30
Tyr His Lys Tyr Arg Thr His Asp Ala Ser Asp Asp Glu Glu Phe Asp
        35                  40                  45
Ser Ala Asp Ser Ala Asn Glu Gly Arg Arg Ala Gly Arg Val Gly Val
    50                  55                  60
Gly Phe Gly Phe Gly Leu Asp Ser His Val Asp Ser Asp Glu Asp Ser
65                  70                  75                  80
Leu Asp Gly Asp Gly Pro Asn His Asp Arg Met Arg Arg Trp
                85                  90
```

<210> 38137
<211> 127
<212> PRT
<213> A.fumigatus

<400> 38137

```
Tyr His His Leu Tyr Cys Tyr Val Gly Arg Ile Phe Leu Ile Ser Val
1               5                   10                  15
Phe Tyr Leu Cys Leu Phe Tyr Ser Val Ser His Leu Phe Glu Pro Phe
            20                  25                  30
Ser Ala Ala Asp Phe Gln Cys Ala Thr Arg Glu Trp Asp Glu Thr Ser
        35                  40                  45
Ala Asp Thr Leu Asp Trp Phe Gly Ala Gly Leu Ser Phe Asp Val Ser
    50                  55                  60
Phe Pro Leu Phe Thr Phe Leu Val Pro Leu Gln Arg Phe Gln Ala Glu
65                  70                  75                  80
His Thr Ala His Pro Arg Cys Met Leu Asp Thr Asp Lys Gly Tyr Ile
                85                  90                  95
Ala Val Asp Val Met Val His Asp Gly Lys Gly Asp Cys Lys Pro Trp
            100                 105                 110
Glu Asp Glu Arg Tyr Gly Thr Arg Ile Asn Lys Asn Glu Ile Lys
        115                 120                 125
```

<210> 38138
<211> 460
<212> PRT

<213> A.fumigatus

<400> 38138

```
His Glu Thr Thr Asp Ile Gln Ser Glu Leu His Gln Thr Lys Arg Arg
1               5                  10                  15
Phe Thr Asp Phe Val Phe Gln Arg Val Gln Val Ser Gly Asn Ala Arg
            20                  25                  30
Asp Ser Gly Ser Ser Ser Pro Ala Ser Leu Ala Ala Pro Ser Arg Thr
        35                  40                  45
Leu Leu Thr Pro Arg Ser Val Ser Ser Ser Ala Phe Pro Ala Ser Arg
    50                  55                  60
Gly Ala Ala Arg Pro Ser Gly Pro Gly Thr Gly Val Gly Ala Thr Val
65                  70                  75                  80
Pro Leu Val Arg Ala Thr Ser Pro Gly Ala Glu Phe Arg Glu Glu Gln
                85                  90                  95
Arg Leu Ala Ala Val Arg Lys Ala Ala Glu Glu Lys Leu His Arg Ala
            100                 105                 110
Leu His Pro Ser Ser Arg Val Ala Gly Ala Asp Leu Val Ser Ser Thr
        115                 120                 125
Thr Val Gly Gly Thr Gln Glu Ser Ser Val Ser Ser Gly Arg Glu Ser
    130                 135                 140
Pro Val Ser Ala Ser Pro Arg Ser Val Arg Arg Phe Gln Ile Ser Arg
145                 150                 155                 160
Ser Ser Thr Pro Val Asn Val Leu Arg Ser Ala Gly Gly Gly Val Gln
                165                 170                 175
Lys Arg Arg Gly Asp Gly Ala Val Ala Val Leu Val Glu Lys Leu Arg
            180                 185                 190
Arg Ala Pro His Ser Arg Gln Ala Ser Leu Val Ala Asp Ala Ala Ala
        195                 200                 205
Gln Ala Ala Thr Ala Glu Gly Glu Asp Arg Gly Val Asn Val Pro Glu
    210                 215                 220
Pro Ala Pro Glu Pro Glu Pro Val Arg Pro Arg Lys Arg Pro Val Val
225                 230                 235                 240
Asn Gln Ala Glu Arg Lys Trp Arg Glu Glu Arg Lys Thr Ala Ile Ser
                245                 250                 255
Ala Ala Lys Glu His Ile Thr Lys Val Leu Glu Lys Glu Ala His Ala
            260                 265                 270
Arg Lys Ser Asn Trp Glu Asp Glu Ser Glu Arg Leu Ala Arg Glu Phe
        275                 280                 285
Glu Gln Ile Ala Leu Glu Leu Glu Gly Gly Arg Glu Thr Glu Pro Pro
    290                 295                 300
Val Gln Gln Pro Val Ala Gln Pro Thr Ala Arg Pro Thr Val Pro Lys
305                 310                 315                 320
Pro Pro Leu Lys Tyr Gln Pro Arg Thr Pro Asn Lys Pro Arg Gly Thr
                325                 330                 335
Thr Pro Arg Glu Thr Ser Val Val Glu Ile Pro Asp Val Gln Pro Pro
            340                 345                 350
Val Glu Thr Val Ala Gln Glu Asp Asp Ser Asp Gly Glu Tyr Val Tyr
        355                 360                 365
Asp Thr Tyr Ile Arg Gln Pro Leu Pro Glu Gly Thr Leu Leu Thr Asn
    370                 375                 380
Pro Leu Thr Asp Leu Glu Thr Ala His Glu Ile Trp Phe Gln Gln Asn
385                 390                 395                 400
Gly Ile Asp Thr Thr Arg Gln Asp Ile Gly Val Ile Val Ile Thr Gln
                405                 410                 415
Glu Asp Glu Glu Tyr Trp Glu His Phe Ala Glu Asp Asp Glu Asp Glu
```

```
            420                 425                 430
Glu Trp Asp Ser Glu Asp Ala Asp Ser Asn Gly Met Leu Ser Pro Pro
        435                 440                 445
Val Gln Thr Leu Cys Met His Ser Ala Asn Pro Ser
    450                 455                 460

<210> 38139
<211> 354
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (200),(209),(216)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38139
Cys Leu Leu Val Asp Asn Gln Ala His Cys Cys Gly His Leu Gly Lys
1               5                   10                  15
Val Ile Arg Ser Glu Tyr Pro Ile Pro Lys Val Ile Gln Pro Asn Arg
            20                  25                  30
Ile Tyr Gly Arg Thr Ser Ala Leu Ser Val Ser Glu Ile Thr Phe Pro
        35                  40                  45
Ser Phe Phe Val Ala Ile Ser Cys Ser Arg Met Ala Gly Pro Asn Asp
    50                  55                  60
Asn His Arg Phe Ser Val Leu Ile Ile Asn Pro Asn Thr Ser Thr His
65                  70                  75                  80
Met Thr Asn Ala Leu Lys Pro Ile Leu Glu Ser Leu Asp Tyr Ala Asp
                85                  90                  95
Ile Tyr Phe Asn Tyr Phe Thr Ala Pro Ser Ser Glu Ser Val Thr Leu
            100                 105                 110
Pro Asp Gly Arg Ile Ile Asn Gly Val Pro Ser Ile Asn Ser Gly Glu
        115                 120                 125
Asp Ser Ile Thr Ser Ala Leu His Cys Arg Pro Phe Val Glu Pro Leu
    130                 135                 140
Val Pro Lys Tyr Asp Ala Phe Leu Val Ala Cys Tyr Ser Ala His Pro
145                 150                 155                 160
Leu Val Gly Met Leu Lys Glu Ala Ile Thr Glu Tyr Glu Arg Thr Ser
                165                 170                 175
Ser Arg Lys Asp Ser Thr Leu Pro Glu Tyr Arg Lys Lys Tyr Val Thr
            180                 185                 190
Gly Ile Phe Glu Ala Ser Val Xaa Thr Ser Leu Ser Leu Val Ser Ser
        195                 200                 205
Xaa His Leu Met Gly Asp Ala Xaa Phe His Lys Ala Gln Ser Arg Asp
    210                 215                 220
Thr Phe Gly Ile Val Thr Thr Gly Ser Ile Trp Arg Asp Glu Leu Thr
225                 230                 235                 240
Arg Ala Val Ala Glu Met Ile Val Asn Ser Gly Gly Gly Gly Gly Ser
                245                 250                 255
Thr Ala Arg Phe Ala Gly Val Glu Thr Thr Gly Leu Thr Ala Ser Glu
            260                 265                 270
Leu His Thr Ala Pro Ala Glu Glu Val Ser Arg Arg Ile Ser Asp Ala
        275                 280                 285
Thr Glu Arg Leu Ile Lys Ser Thr Ser His Pro Val Ser Ala Ile Cys
    290                 295                 300
Met Gly Cys Ala Gly Met Ala Gly Met Glu Glu Ala Val Arg Asp Gly
```

305 310 315 320
Cys Ile Arg Ala Tyr Gly Glu Arg Gln Gly Arg Arg Val Arg Ile Val
325 330 335
Asp Gly Val Val Ala Gly Ala Gly Met Leu Val Thr Ala Cys Lys Ala
340 345 350
Gly Phe

<210> 38140
<211> 79
<212> PRT
<213> A.fumigatus

<400> 38140
Lys Pro Val Tyr Glu Phe Thr Leu His Lys Cys Ala Ala Val Tyr Ile
1 5 10 15
Ser Ser Glu Ser Glu Leu Ser Leu His Gly Gln Val Leu Asn Ser Ile
20 25 30
Gln Ser Gly Pro Tyr Lys Asn Ile Tyr Asn Pro Glu Asn Phe Phe Ile
35 40 45
Gly Gln Gln Gly Ile Gly Ala Gly Asn Asn Trp Gly Ala Gly Tyr Ala
50 55 60
Ala Gly Glu Val Val Gln Glu Glu Val Phe Asp Met Ile Asp Arg
65 70 75

<210> 38141
<211> 79
<212> PRT
<213> A.fumigatus

<400> 38141
Gln Gly Phe Met Phe Leu His Ser Ile Ala Gly Gly Thr Gly Ser Gly
1 5 10 15
Leu Gly Ser Phe Ile Leu Glu Arg Met Asn Asp Arg Phe Pro Lys Lys
20 25 30
Leu Ile Gln Thr Tyr Ser Val Phe Pro Asp Thr Gln Ser Ala Asp Val
35 40 45
Val Val Asn Pro Tyr Asn Ser Leu Leu Ala Met Arg Arg Leu Thr Gln
50 55 60
Asn Ala Asp Ser Val Val Ser Phe Pro Ser Met Arg Pro Pro Asn
65 70 75

<210> 38142
<211> 123
<212> PRT
<213> A.fumigatus

<400> 38142
Pro Met Thr Ser Leu Lys Ala Thr Asn Thr Arg Val Arg Trp Phe Ser
1 5 10 15
Val Val Met Gly Thr Gly Met Ile Ser Thr Ala Leu Asn Thr Leu Pro
20 25 30
Tyr Asn Gly Arg Trp Leu Tyr Trp Ile Ser Ile Val Val Phe Val Leu
35 40 45
Asn Val Ala Ile Phe Ala Val Cys Ser Ile Leu Ser Val Leu Arg Tyr
50 55 60

```
Thr Met Tyr Pro Glu Thr Leu Asn Thr Ile Met Asn Glu Pro Ala Gln
65                  70                  75                  80
Ser Met Phe Leu Ser Thr Phe Pro Met Gly Leu Ala Thr Ile Val Asn
                85                  90                  95
Met Ile Cys Phe Val Cys Val Pro Ala Trp Gly Asn Trp Thr Arg Asp
            100                 105                 110
Phe Ala Trp Ala Leu Trp Met Val Asp Val Phe
        115                 120
```

<210> 38143
<211> 211
<212> PRT
<213> A.fumigatus

<400> 38143

```
Pro His Cys Ser Ile Arg Phe Arg Leu Arg Gln Leu Lys Gly Tyr His
1               5                   10                  15
Asp Tyr Thr His Thr Leu Ile Phe Ile Met Pro Leu Val Val Pro Ser
            20                  25                  30
Ala Thr Pro Arg Val Ile Leu Gly Leu Met Thr Phe Gly Pro Asp Glu
        35                  40                  45
Ser Glu Gly Ala Arg Ile Thr Ser Leu Asp Asp Phe Asn Lys Cys Leu
    50                  55                  60
Asp His Leu Gln Gln Gln Gly Tyr Asn Glu Val Asp Thr Ala Arg Ile
65                  70                  75                  80
Tyr Val Gly Gly Lys Gln Glu Ala Phe Thr Ala Gln Ala Arg Trp Lys
                85                  90                  95
Glu Arg Gly Leu Thr Leu Ala Thr Lys Trp Tyr Pro His Thr Pro Gly
            100                 105                 110
Ala His Lys Pro Asp Val Leu Arg Glu Asn Leu Glu Arg Ser Leu Lys
        115                 120                 125
Glu Leu Gln Thr Asp Gln Val Asp Ile Phe Tyr Leu His Ala Ala Asp
    130                 135                 140
Arg Ser Val Pro Phe Ala Glu Thr Leu Glu Ala Val Asn Glu Leu His
145                 150                 155                 160
Lys Glu Gly Lys Phe Val Gln Leu Gly Leu Ser Asn Tyr Thr Ala Phe
                165                 170                 175
Glu Val Ala Glu Ile Val Ile Leu Cys Asn Glu Arg Gly Trp Val Arg
            180                 185                 190
Pro Thr Ile Tyr Gln Ala Met Tyr Asn Ala Ile Ser Ala Tyr Pro Pro
        195                 200                 205
Ala Val Thr
    210
```

<210> 38144
<211> 190
<212> PRT
<213> A.fumigatus

<400> 38144

```
Asn Val Cys Tyr Lys Ile Ser Phe Glu Leu His Leu Leu Thr Pro Ile
1               5                   10                  15
Asn Thr Ala Arg Asn Ile Glu Thr Glu Leu Ile Pro Ala Cys Lys Arg
            20                  25                  30
Tyr Gly Leu Asp Ile Val Val Tyr Asn Pro Leu Ala Gly Gly Leu Phe
        35                  40                  45
```

```
Ser Gly Lys Tyr Lys Thr Lys Asp Ile Pro Ala Glu Gly Arg Tyr Ser
    50                  55                  60
Asn Gln Ser Ser Thr Gly Ala Leu Tyr Arg Gly Arg Tyr Phe Lys Asp
65                  70                  75                  80
Ala Thr Phe Asp Ala Leu Arg Leu Ile Glu Pro Val Ala Gln Lys His
                85                  90                  95
Gly Leu Thr Met Pro Glu Ile Ala Phe Arg Trp Ile His His His Ser
            100                 105                 110
Ala Leu Asn Met Lys Asp Asn Gly Arg Asp Gly Val Ile Ile Gly Val
        115                 120                 125
Ser Ser Pro Ala Gln Leu Glu Asn Asn Leu Lys Asp Ile Gln Lys Gly
    130                 135                 140
Pro Leu Pro Gln Glu Val Val Asp Thr Leu Asp Gln Ala Trp Leu Ile
145                 150                 155                 160
Ala Lys Pro Thr Ala Pro Asn Tyr Trp His Leu Asp Leu Lys Tyr Thr
                165                 170                 175
Tyr Asp Thr Gln Ala Ala Leu Phe Lys Pro Lys Pro Lys Ala
            180                 185                 190
```

<210> 38145
<211> 1207
<212> PRT
<213> A.fumigatus

```
<400> 38145
Ala Ala Pro Cys Ser Pro Val Val Lys Thr Gly Ser Gly Ser Gly Asp
1               5                   10                  15
Phe Gly Leu Ala Ala Tyr Tyr Ala Ala Trp Gln His Ala Gln Gln Thr
            20                  25                  30
Gly Asp Asp Ser Asp Trp Lys Gln Phe Gln Phe Lys Arg Arg Ile Gly
        35                  40                  45
Trp Lys Pro Thr Gly Asp Glu Glu Ser Ala Arg Val Lys Val Gly Glu
    50                  55                  60
Lys Ala Thr Asp Ser Gln Pro Gly Leu His Asp Ser Pro Arg Val Ser
65                  70                  75                  80
Lys Ala Ser Ala Asn Ala Glu Ile Ser Ala Gln Val Glu Glu Ala Val
                85                  90                  95
Ala Arg Glu Ile Gln Ile Gln Glu Glu Gln Ala Gln Ala Glu Glu Ala
            100                 105                 110
Ser Glu Ala Lys Asp Glu Gly Thr Glu Ala Phe Pro Asp Leu Pro Pro
        115                 120                 125
Glu Val Ala Ala Val Ser Asp Ala Thr Ala Glu Gln Ser Arg Phe Val
    130                 135                 140
Ser Asp Gln Ile Val Gln Leu Ala Ser Gly Lys Lys Tyr Ala Glu Ile
145                 150                 155                 160
Pro Ala Ala Phe Glu Ser Leu Leu Arg Asp Gly Leu Thr Pro Thr Val
                165                 170                 175
Gly Ala Tyr Asn Ala Leu Leu Glu Ser Ala Val Arg Leu His Thr Asp
            180                 185                 190
Val Ser His Ala Ile Pro Lys Ala Leu Asp Val Tyr Ser Asp Met Leu
        195                 200                 205
Arg Arg Arg Val Ile Pro Asp Glu Asp Thr Tyr Arg Thr Leu Val Glu
    210                 215                 220
Leu Phe Val Val Arg Ser His Glu Thr Ile Lys Ala Lys Glu Ser Leu
225                 230                 235                 240
Glu Gln Glu Arg Leu Arg Tyr Gly Gly Met Glu Glu Pro Gly Lys Phe
```

```
                245                 250                 255
Met Leu His Ser Ser Gln Leu Glu Arg Asp Leu Leu Ala Glu Asp His
            260                 265                 270
Ser Leu Ala Ile Ala Val Lys Leu Phe Asn Thr Ala Thr Thr Arg His
        275                 280                 285
Ser Asp Leu Val Phe Ser Leu Asp Met Tyr Arg Tyr Leu Ile Thr Ala
    290                 295                 300
Cys Ala Lys Glu Gly Gln Val Glu Asp Met Ile Arg Ile Tyr Ala His
305                 310                 315                 320
Met Glu Ser His Lys Val Thr Pro His Ala Ser Ile Phe Pro Ser Met
                325                 330                 335
Ile Asp Ala Phe Ala Ser Thr Gly Asp Leu Thr Ser Ala Val Glu Cys
            340                 345                 350
Tyr Asn Glu Tyr Lys Asp Leu Ala Ile Ser Asp Asp Asn Gly Thr Phe
        355                 360                 365
Ser Ile Val Gln Arg Leu Asp Gly Gln Val Tyr Ala Ala Val Val Arg
    370                 375                 380
Ala Tyr Leu Ala Ala Gly Lys Glu Glu Asn Ala Leu Arg Phe Leu Glu
385                 390                 395                 400
Arg Ile Arg Ala Ser Phe Asp Glu Val Thr Glu Asn Arg Glu Ala Arg
                405                 410                 415
Gln Glu Ala Val Glu Ser Val Ile Val Gln Asp Gly Leu Val Gln Tyr
            420                 425                 430
Cys Leu Lys Ser Gly Glu His Ala Lys Ala Leu Lys His Ala Lys Glu
        435                 440                 445
Gln Leu Arg Gly Asp Ala Leu Asp His Ala Met Ala Arg Ile Cys Val
    450                 455                 460
Thr Ala Ala Asp Ala Gly Asp Leu Asn Thr Ala Ser Glu Ala Tyr Gly
465                 470                 475                 480
Arg Leu Pro Ser Asp Pro Ile Val Arg Gln Gly Pro Ala Ile Ala Met
                485                 490                 495
Leu Ala Leu His Val Arg Gln Gly Asn Val Ser Glu Ala Arg Pro Leu
            500                 505                 510
Trp Leu Met Leu Ser Thr Val Gly Gln Ala Thr Pro Asp Met Val Gln
        515                 520                 525
Pro Thr Val Met Tyr Ala Val Ala Leu Ala Lys Ser Gly Gln Val Asp
    530                 535                 540
Glu Ala Leu Leu Glu Ala Arg Asn Met Phe Ala Arg Ile Arg Asn Ser
545                 550                 555                 560
Ser Ala Asn Asn Ala Ala Val Leu Asn Ser Ile Arg Glu Gln Ile Asn
                565                 570                 575
Glu Ser Leu His Leu Ile Gly Arg Val Leu Met Gln Thr Ala Ala Val
            580                 585                 590
Leu Ser Pro Gln Ala Ala Met Asn Leu Ile Trp Ser Met Thr Glu Asn
        595                 600                 605
Gly Gly Leu Val Ser Pro Leu Ala Glu His Ala Val Ala Ser Leu Gly
    610                 615                 620
Pro Leu Gly Ile Ser Gln Leu Ala Ala Pro Asp Leu Ala Leu Ala Leu
625                 630                 635                 640
Gln Val Gln Ala Gly Met Leu Leu Asn Asn Asn Ser Met Ala Phe Asp
                645                 650                 655
Val Ala His Pro Ile Arg Phe Ser His Met Leu Asp Ile Ala Leu Ala
            660                 665                 670
Thr Arg Leu Pro Leu Asp Thr His Thr Thr Ala Leu Val Asp Gln Ala
        675                 680                 685
Val Ala Lys Leu Phe Asn Ser Arg Pro Asp Met Val Lys Arg Trp Gln
```

```
    690                 695                 700
Asp His Leu Ser Met Thr Ser Ser Pro Ser Ser Phe Leu Ser Gly His
705                 710                 715                 720
His Ser Pro Val Ser Glu Val Ser Ser Met Thr Pro Val Ser Ser Asp
                725                 730                 735
Asp Ser Phe Asp Pro Tyr Ala Tyr Ala Thr Asp Phe Arg Gly Ser Ser
            740                 745                 750
Ile Ile Ala Glu Glu Leu Glu Ser Ala Ser Gly Arg Ala Glu Ser His
        755                 760                 765
Leu Asn Glu Ala Leu Thr Arg Leu Arg Asn Met Arg Arg Leu Gly Arg
    770                 775                 780
His Pro Arg Tyr Ile Thr Tyr Ala Lys Leu Ile Asn Ala Ala Thr Lys
785                 790                 795                 800
Val Gly Arg Ala Asp Leu Val Gln Glu Ile Leu Ser Met Ala Arg Arg
                805                 810                 815
Asp Val Pro Leu Leu Pro Gln Tyr His Ala Val Lys Tyr Gly Trp Ile
            820                 825                 830
Ser Ile Leu Asp Ala Met Val Ala Ser Cys Leu Thr Leu Gly Asp Arg
        835                 840                 845
Ser Leu Ala Ala Lys Tyr His Asn Glu Leu Leu Glu Leu Gly Ser Ala
    850                 855                 860
Pro Ser Ala Asn Thr Phe Gly Leu Tyr Ile Thr Thr Leu Lys Glu Ser
865                 870                 875                 880
Thr Lys Thr Phe Asp Glu Ala Thr Glu Ala Leu Lys Ile Phe His Arg
                885                 890                 895
Ala Ile Ala Glu Gly Val Glu Pro Thr Ser Phe Leu Tyr Asn Ala Leu
            900                 905                 910
Ile Gly Lys Leu Gly Lys Ala Arg Arg Ile Asp Asp Cys Leu Leu Tyr
        915                 920                 925
Phe Ala Glu Met Arg Ala Asn Gly Ile Arg Pro Thr Ser Val Thr Tyr
    930                 935                 940
Gly Thr Ile Val Asn Ala Leu Cys Arg Val Ser Asp Glu Arg Phe Ala
945                 950                 955                 960
Glu Glu Met Phe Glu Glu Met Glu Ser Met Pro Asn Tyr Lys Pro Arg
                965                 970                 975
Pro Ala Pro Tyr Asn Ser Met Ile Gln Tyr Phe Leu Asn Thr Lys Arg
            980                 985                 990
Asp Arg Ser Lys Val Leu Ala Tyr Tyr Gln Arg Met Gln Ser Arg Asn
        995                 1000                1005
Ile Gln Pro Thr Met His Thr Tyr Lys Leu Leu Ile Asp Ala Phe Ala
    1010                1015                1020
Ser Leu Glu Pro Val Asp Met Pro Ala Ala Glu Lys Val Leu Glu Thr
1025                1030                1035                1040
Ile Lys Ala Ser Gly Gln Gln Pro Glu Ala Val His Tyr Ala Ser Leu
                1045                1050                1055
Ile His Ala Lys Gly Cys Val Met His Asp Leu Asp Ala Ala Leu Asp
            1060                1065                1070
Val Phe Gln Ser Val Val Ser Asn His Lys Val Arg Leu Gln Pro Cys
        1075                1080                1085
Leu Tyr Gln Ala Leu Leu Glu Ala Met Val Ala Asn His Gln Val Ala
    1090                1095                1100
Gln Thr Glu Ala Ile Val Lys Asp Met Ala Asp Arg Arg Val Glu Met
1105                1110                1115                1120
Thr Ala Tyr Ile Ala Asn Thr Leu Ile His Gly Trp Ala Ala Ala Gly
                1125                1130                1135
Asn Val Ala Lys Ala Lys Ala Val Tyr Asp Ser Val Gly Ile Asp Lys
```

```
            1140                1145                1150
Arg Glu Pro Ser Thr Tyr Glu Ala Met Thr Arg Ala Phe Leu Ala Ser
        1155                1160                1165
Glu Asp Arg Glu Gly Ala Ser Arg Val Val Gln Glu Met Leu Ser Arg
    1170                1175                1180
Gly Tyr Pro Thr Ala Val Ala Ser Lys Ile Leu Asp Leu Val Gly Gly
1185                1190                1195                1200
Gly Ala Pro Val Ala Ala Ile
                1205
```

<210> 38146
<211> 75
<212> PRT
<213> A.fumigatus

<400> 38146

```
Phe Pro Ala Val Asp Phe Arg Cys Arg Leu Pro Ala Leu Met Ala Asp
1               5                   10                  15
Asp Ala Gln Asn Ser Pro Thr Ile Asn Arg Gln Lys Ser Ser Pro Phe
            20                  25                  30
Ala Arg Leu Thr Gln Leu His Ser Leu Cys Leu Arg Val Ala Tyr Val
        35                  40                  45
Tyr Ala Leu Ser Ala Leu Ser Ile Ala Phe Val Trp Gln Gln Ala Ile
    50                  55                  60
Ile Ala Thr Thr Lys Arg Gly Ile Phe Thr Val
65                  70                  75
```

<210> 38147
<211> 109
<212> PRT
<213> A.fumigatus

<400> 38147

```
Arg Ser Lys Ala Gly Asn Ser Met Phe Ser Lys Gly Arg Asp Glu Thr
1               5                   10                  15
Thr Ile Leu Ser His Arg Pro Asn Glu Val His Gly Ser Leu Trp Gly
            20                  25                  30
Glu Asn Ser Ser Ser Leu His Glu Asn Thr Ala Asp Lys Val Lys Ala
        35                  40                  45
Phe Ile Asn Leu Phe Thr Asp Gly Ile Gln Tyr Gly Gly Val Val Gly
    50                  55                  60
Arg Gly Val Ala Asn Pro Gly Lys His Ile Ala Gly Phe Lys Lys Gly
65                  70                  75                  80
Phe Val Asn Leu Ala Thr Leu Gly Gln Gly Tyr Cys Val His Asn Arg
                85                  90                  95
Arg Leu Asn His Ile Arg Ser Cys Leu Thr His Gly Ala
            100                 105
```

<210> 38148
<211> 169
<212> PRT
<213> A.fumigatus

<400> 38148

```
Trp Arg Asp Gly Arg Ala Arg Gly Ala Arg Val Leu Thr Leu Met Leu
1               5                   10                  15
```

```
Gly Ser Val Phe Leu Ala Val Lys Tyr Ala Ser Leu Gly Met Lys Val
            20                  25                  30
Thr Ser Ala Ala Lys Pro Tyr Pro Ser Gly Ser Ile Ile Cys Thr Ala
        35                  40                  45
Ser Val Ala Gly Leu Arg Ser Asn Ala Gly Ser Thr Asp Tyr Ser Ala
    50                  55                  60
Ser Lys Ala Ala Val Val Ser Ile Ala Gln Thr Cys Ala Tyr Gln Leu
65                  70                  75                  80
Ala Gly Thr Gly Ile Arg Val Asn Ala Ile Cys Pro Gly Leu Ile Glu
                85                  90                  95
Thr Gly Met Thr Gln Gln Val Phe Asp Ala Ala Arg Ala Arg Gly Thr
            100                 105                 110
Glu Arg Lys Ile Gly Gln Leu Asn Pro Leu Gln Arg Gly Ala Val Ala
        115                 120                 125
Asp Glu Val Ala Arg Val Ala Leu Phe Leu Gly Ser Asp Glu Ser Ser
    130                 135                 140
Tyr Val Asn Gly Gln Ala Trp Ala Val Cys Gly Gly Leu Ser Ala Gly
145                 150                 155                 160
His Pro Phe Val Pro Gly Lys Leu Ala
                165
```

Sequence Listing

<210> 38149
<211> 344
<212> PRT
<213> A.fumigatus

<400> 38149

```
Gln Gln Gln Ala Cys Phe Pro His Asp Val Glu Ile Cys Thr Gly Lys
1               5                   10                  15
Ser Gln Pro His Cys Val His His Ala Phe Val Leu Gln Gln Asp Ser
            20                  25                  30
Ser His Thr Leu Tyr Gly Ile Ala Leu Arg Val Trp Ser Arg Ala Asp
        35                  40                  45
Asp Lys Arg Ala Glu Thr Ile Arg Glu Leu Arg Lys Lys Thr Glu Ala
    50                  55                  60
Asp Phe Tyr Asp Asn Pro Asp Glu Thr Tyr Trp Ile Pro Tyr Cys Leu
65                  70                  75                  80
Ser Phe Leu Ser Arg Tyr Pro Leu Tyr Asp Leu Leu Gly Asp Tyr Leu
                85                  90                  95
Arg Gly Met Trp Ile His Trp Asn Lys Ala Thr Asn Leu Phe His Ala
            100                 105                 110
Glu Glu Val Ser Arg Ile Leu Ser Phe Pro Ala Pro Arg Leu Asn Asp
        115                 120                 125
Leu Val Arg Ile Asp Met Lys Asp Tyr Ala Leu Cys Tyr Gln Phe Pro
    130                 135                 140
Ser Ser Pro Thr Gly Phe Gln Asn Phe Ala Met Trp Pro Leu Phe Thr
145                 150                 155                 160
Cys Leu Ser Ile Pro Asn Ile Val Gly Val Val Glu Ala Ala Val Ser
                165                 170                 175
Pro Thr Arg Arg Ile Ile Phe Val Ser His Tyr Pro Ala Met Leu Thr
            180                 185                 190
Ile Ala Ala Glu Thr Val Arg Tyr Cys Val Arg Val Tyr Glu Trp Ser
        195                 200                 205
Gly Leu Tyr Val Pro Val Val His Ala Arg His Ile Lys Asp Leu Val
    210                 215                 220
Gln Glu Pro Gly Pro Tyr Ile Leu Gly Val Thr Ala Glu Cys Arg Thr
```

225 230 235 240
Leu Phe Asn Ala Pro Ser Asp Ala Leu Val Val Asp Leu Asp Arg Asn
245 250 255
Phe Val Leu Thr Ser Ser Pro Pro Asn Val Leu Thr Pro Gly Gln Arg
260 265 270
Thr Lys Phe Ile Asp Arg Leu Thr Gln Ala Leu Asn Gly Asp Val Ser
275 280 285
Pro Ser Gly Val Pro Asn His Leu Arg Ser Ala Tyr Ala Gly Gly Lys
290 295 300
Leu Ile Pro Ala Gly Gln Ile Ile Val Met Arg Gly Glu Val Glu Ser
305 310 315 320
Ile Gln Asp Pro Ser Trp Trp Asn Gln Asp Ala Val Met Ser Val Met
325 330 335
Asp His Val Cys Glu Lys Leu Val
340

<210> 38150
<211> 371
<212> PRT
<213> A.fumigatus

<400> 38150
Leu Asn Asn Thr Asp Leu Ala Gln Phe Leu Lys Phe Gln Ala Phe Ala
1 5 10 15
Glu Gln Leu Thr Lys Glu Thr Ala Glu Leu Lys Val Lys Ile Glu Asn
20 25 30
His Lys Arg Glu Asn Arg Arg Leu Ser Gly Leu Ile Asp Gln Gln Lys
35 40 45
Asp Asp Val Ala Arg Leu Thr Leu Arg Leu Ser Gly Thr Glu Lys Gln
50 55 60
Arg Asp Asp Ala Leu Glu Ala Leu Val Leu Gln Gln Glu Ile Ala Glu
65 70 75 80
Glu Leu Glu Arg Glu Arg Lys Arg Asn Gln Lys Glu Leu Ala Ser Leu
85 90 95
Gln His Thr Asn Ala Ser Leu Ala Arg Gln Arg Asp Glu Ala Gln Arg
100 105 110
Val Val Leu His Leu Arg Ser Leu Ile Asn Gly Gln Ala His His Met
115 120 125
Glu His Ile Val Arg Ser Ile Ser Ser Ser Ala Glu Leu Ser Glu Leu
130 135 140
Val Glu Gln Ala Glu Glu Ser Gln Glu Asn Glu Glu Asn Ala Ala Pro
145 150 155 160
Glu Glu Thr Lys Glu Arg Ala Glu Lys Ala Lys Ser Leu Ala Pro Asn
165 170 175
Met Thr Pro Glu Leu Glu Gln His Leu Leu Asn Leu Gly Lys Glu Gln
180 185 190
Lys Arg Leu Ala Arg Leu Ser Ile Thr Asp Val Ala Asp Arg Tyr Leu
195 200 205
Arg Asp Lys Thr Asp Ala Ile Ser Asp Ile Ile Arg Ser Ile Ser Glu
210 215 220
Gln Cys Ala Ala Ala Val Glu Gly Leu His Leu Ala Gln Asp Ala Glu
225 230 235 240
Glu Asp Asp Ala Asp Glu Ser Gly Gln Arg Thr Pro Asp Gly Asn His
245 250 255
Leu Ala Pro Asp Phe Asp Gly Asn Asp Gly Arg Ser Thr Arg Glu Gly
260 265 270

```
Ser Glu Val Gly Asp Asp Asn Ser Thr Leu His Pro Asp His Arg Ile
        275                 280                 285
Ser Ser Val Pro Pro Thr Pro Asp Leu Val His Asn Arg Ser Ser Thr
    290                 295                 300
Ser Met Ser Met Ile Ser Ser Ser Thr Phe Pro Glu Arg Ser Ser Gln
305                 310                 315                 320
Gln Tyr Gly Pro Gly Glu Val Pro Thr Arg Ile Val Glu Asp Asp Asp
                325                 330                 335
Glu Arg Ala His Glu Thr Asp Gly Leu Asp Asp His Thr Glu Thr Gly
            340                 345                 350
Thr Leu Ser Lys Gln Gly Ser Glu Asp Leu Met Arg Ser Ser Pro Arg
        355                 360                 365
Leu Leu Val
    370
```

<210> 38151
<211> 418
<212> PRT
<213> A.fumigatus

<400> 38151

```
Asn Lys Arg Lys Met Lys Phe Thr Ile Trp Ser Ser Leu Leu Ala Leu
1               5                   10                  15
Pro Asn Ala Leu Ala His Pro Arg Ser Val Gln Glu Arg Ser Asn Phe
            20                  25                  30
Ala His Pro Gly Leu Leu His Thr Ala Ala Asp Phe Ser Arg Ile Thr
        35                  40                  45
Ser Lys Val Asn Ser Lys Ala Glu Pro Trp Phe Thr Gly Trp Asn Lys
    50                  55                  60
Leu Ser Ser Ser Ser Tyr Gln Ser Leu Ser Tyr Asn Ala Asn Pro Gln
65                  70                  75                  80
Ala Val Val Tyr Arg Gly Ser Asp Gly Thr His Ser Glu Asn Tyr Ala
                85                  90                  95
Ser Leu Tyr Arg Asp Ile Ala Ala Ala Tyr Ile Thr Ala Ile Tyr Trp
            100                 105                 110
Lys Val Thr Gly Asp Thr Ala Tyr Ala Asp Lys Ala Val Ser Ile Leu
        115                 120                 125
Asp Ala Trp Ala Ala Thr Leu Thr Gly Ile Ser Gly Ser Ser Asp Lys
    130                 135                 140
Phe Leu Ala Ala Gly Ile Tyr Gly Tyr Glu Ile Ala Asn Ala Ala Glu
145                 150                 155                 160
Ile Met Arg Thr Tyr Asn Gly Trp Ser Ala Gln Asn Ile Ala Lys Phe
                165                 170                 175
Gln Asn Met Met Val Glu Val Phe Tyr Pro Leu Asn His Ile Phe Leu
            180                 185                 190
Glu Gln His Asn Gly Ala Ala Ile Asp His Tyr Trp Ala Asn Trp Asp
        195                 200                 205
Leu Cys Asn Ile Ala Ser Met Met Ser Ile Gly Val Leu Thr Asp Asn
    210                 215                 220
Arg Thr Met Tyr Asp Glu Ala Ile Asn Tyr Phe Lys Thr Gly Ala Gly
225                 230                 235                 240
Asn Gly Gln Ile Glu Lys Met Ile Trp Lys Leu Tyr Gln Val Asp Gly
                245                 250                 255
Gln Thr Leu Gly Gln Gly Gln Glu Ala Gly Arg Asp Gln Gly His Ala
            260                 265                 270
Met Leu Asp Phe Ala Leu Leu Gly Val Ile Ala Gln Thr Ala Tyr Asn
```

```
        275                 280                 285
Gln Gly Asp Asp Leu Phe Gly Tyr Leu Asp Asn Arg Ile Leu Ala Gly
    290                 295                 300
Tyr Val Ser Met Ile Cys Pro Cys Ala Cys His Thr Asp Leu Asn Arg
305                 310                 315                 320
Ala Glu Tyr Val Ala Lys Tyr Asn Leu Gly Asn Asp Val Pro Tyr Thr
                325                 330                 335
Thr Tyr Thr Asn Ser Asp Val Ala Gln Thr Val Ile Ser Asn Ala Ser
            340                 345                 350
Arg Gly Asp Ile Arg Pro Ile Trp Glu Leu Leu Tyr Asn His Tyr Gly
        355                 360                 365
Val Trp Lys Gly Leu Asn Val Lys Tyr Thr Lys Gln Tyr Arg Asp Leu
    370                 375                 380
Val Val Glu Asp Gly Ala Gly Ala Glu Gly Gly Gly Gly Asn Tyr Gly
385                 390                 395                 400
Pro Asn Ser Gly Gly Tyr Asp Gln Leu Gly Phe Gly Thr Leu Met Tyr
                405                 410                 415
Thr Leu
```

<210> 38152
<211> 137
<212> PRT
<213> A.fumigatus

<400> 38152

```
Phe Gly Gly Asn Pro Asp His Val Val Ile His Gly Ala Ser Ala Gly
1               5                   10                  15
Gly Gly Ser Val Ser Phe His Leu Thr Ala Tyr Gly Gly Arg Asn Asp
            20                  25                  30
Gly Leu Phe Val Gly Ala Ile Pro Glu Ser Pro Trp Trp Ala Pro Gln
        35                  40                  45
Val Thr Ile Ser Glu Ser Glu Ile Leu Tyr Asn Arg Leu Leu Gln Ala
    50                  55                  60
Val Gly Cys Ser Thr Leu Ala Cys Leu Arg Ala Val Asp Ala Ser Ala
65                  70                  75                  80
Ile Gln Lys Ala Asn Leu Asn Ala Pro Asp Gln Gly Leu Ile Ser Tyr
                85                  90                  95
Pro Ala Gly Leu Gly Lys Phe Trp Pro Val Ile Asp Gly Asp Leu Val
            100                 105                 110
Arg Asp Arg Leu Tyr Ala Ser Phe Glu Lys Gly Lys Phe Ile Arg Val
        115                 120                 125
Pro Leu Met Val Ala Ser Asp Asn Arg
    130                 135
```

<210> 38153
<211> 142
<212> PRT
<213> A.fumigatus

<400> 38153

```
Thr Tyr His Val Pro Gln Ile Ser Ser Arg Ala His Pro Leu Gln Phe
1               5                   10                  15
Gly Pro Ile Cys Val Gly Thr Gly Gln Ser Thr Thr Ser Thr Arg Ala
            20                  25                  30
Glu Asp Cys Leu Phe Ile Asn Val Phe Thr Pro Ala Asp Ala Thr Glu
```

```
        35                  40                  45
His Ser Lys Leu Pro Val Trp Val Phe Ile Gln Gly Gly Ala Tyr Ala
    50                  55                  60
Thr Asn Ser Asn Ala Asn Tyr Asn Gly Thr Glu Val Val Arg Glu Ser
65                  70                  75                  80
Gly Asn Asn Ile Val Phe Val Asn Phe Asn Tyr Arg Val Gly Ala Leu
                85                  90                  95
Gly Phe Leu Ala Gly Ala Glu Val Gln Arg His Gly Asp Leu Asn Val
            100                 105                 110
Gly Leu Leu Asp Gln Arg Glu Ala Leu Lys Trp Val Lys Arg His Ile
        115                 120                 125
Arg Gln Val Arg His Thr Val Asp Cys Met Ala Leu Ala Phe
    130                 135                 140

<210> 38154
<211> 208
<212> PRT
<213> A.fumigatus

<400> 38154
Trp Trp Arg Val Ile Thr Asp Glu Gly Ser Ser Phe Ala Tyr Asn Ala
1               5                   10                  15
Thr Ser Pro Ala Glu Val Ser Val Phe Leu Arg Ser Phe Tyr Pro Arg
            20                  25                  30
Leu Asn Ser Glu Leu Leu Gln Thr Ile Asn Asp Ala Tyr Pro Lys Met
        35                  40                  45
Asp Pro Val Pro Gln His Ala Ala Tyr Phe Pro Ser Val Ser Ala Ala
    50                  55                  60
Phe Gly Asp Ala Thr Ile Val Cys Pro Gly Ile His Ile Thr Asn Asn
65                  70                  75                  80
Met Ala Arg Phe Phe Glu His Gly Ser Asp Lys Val Trp Asn Tyr Arg
                85                  90                  95
Tyr Asn Val Gln Asp Pro Pro Arg Ile Ala Ala Gly Leu Gly Val Thr
            100                 105                 110
His Thr Phe Asp Leu Gln Ala Ile Phe Gly Leu Asn Tyr Gly Ser Ser
        115                 120                 125
Val Ser Ser Ser Met Arg Asp Ile Thr Pro Ile Ile Pro Val Val Met
    130                 135                 140
His Tyr Tyr Ile Ser Phe Ile Arg Thr Leu Asn Pro Asn Leu Leu Lys
145                 150                 155                 160
Ala Asp Ser Ala Pro Phe Trp Lys Pro Trp Gly Asp Gly Glu Arg Leu
                165                 170                 175
Lys Val Gln Thr Asn Ala Thr Ala Met Glu Thr Val Ser Ala Val Gln
            180                 185                 190
Trp Asp Arg Cys Ser Leu Trp Lys Arg Leu Ala Pro Val Leu Glu Gly
        195                 200                 205

<210> 38155
<211> 63
<212> PRT
<213> A.fumigatus

<400> 38155
Leu Lys Ala Val Gln Ala Glu Asp Leu Arg Pro Lys Pro Lys Pro Glu
1               5                   10                  15
Pro Gly Leu Thr Leu Ser Val Leu Cys Thr Ala Ala Thr Asp Trp Val
```

```
            20                  25                  30
Leu Arg Ile Pro Ser Gln Val Ile Ser Ala Met Asp Ser Leu Met Leu
        35                  40                  45
Trp Lys Ser Thr Leu His Gly Ile Glu Ser Glu Ser Ser Ala Ile
    50                  55                  60

<210> 38156
<211> 64
<212> PRT
<213> A.fumigatus

<400> 38156
Arg Trp Gln Leu Ala Leu Cys Arg Thr Val Ser Glu Asp Gln Leu Tyr
1               5                   10                  15
Glu Ala Thr Glu Lys Ala Ile Val Asp Glu Lys His Thr Leu Glu Asn
            20                  25                  30
Tyr Arg Leu Ile Leu Asn Asn Met Glu Met Gly Asp Pro Pro Gly Ala
        35                  40                  45
Arg His Val Ser Gln Gln Ser Pro Thr Arg Ile Pro Pro Ala Arg Gln
    50                  55                  60

<210> 38157
<211> 193
<212> PRT
<213> A.fumigatus

<400> 38157
Ile Arg Phe Cys Cys Thr Pro Leu Ser Lys Ala Met Asn Ser Leu Ser
1               5                   10                  15
Trp Ala Val Phe Phe Ile Leu Leu Ile Pro Leu Leu Val Ile Arg Leu
            20                  25                  30
Arg Lys Ala Leu Ala Ser Tyr Phe Gln Lys Pro Ala Gln His Ala Gly
        35                  40                  45
Cys Thr Asp Val Lys Arg Met Ala Pro Tyr Pro Ala Gln Pro Ile Arg
    50                  55                  60
Gly Arg Glu Arg Tyr Arg Val Met Met Asp Ile Arg Lys Leu Asp Val
65                  70                  75                  80
Glu Asn Trp Leu Thr Val Asp Lys Asn Tyr Met Asp Glu His Leu Val
                85                  90                  95
Arg Ser Arg Leu Leu Gln Glu Glu Arg Glu Gln Val Leu Gln Cys Leu
            100                 105                 110
Pro Glu Ser Tyr Asp Ala Cys Leu Glu Ala Leu Glu Glu Val Val Glu
        115                 120                 125
Phe Leu Cys Gln Arg Phe Pro His Ile Phe Glu Arg Lys Gln Ser Gly
    130                 135                 140
Asn Glu Ser Thr Ile His Asn Arg Met Thr Gly Glu Thr Phe Val Phe
145                 150                 155                 160
Gly Gly Glu Asn Lys Gln Val Asp Pro Leu Glu Ile Ala Val Arg Leu
                165                 170                 175
Thr Met Glu Ser Leu Pro Gln Gly Pro Lys His Arg Arg Lys Gly Lys
            180                 185                 190
Gly


<210> 38158
<211> 487
```

<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (479)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38158

```
Asn Ile Leu Leu Thr Ile Thr Lys Ser Thr Ala Gly Arg Thr Ala Ala
1               5                  10                  15
Ser Lys Ile Pro Pro Glu Glu Gly Asp Gly Asp Gly Ser Ala Asp Ser
            20                  25                  30
His Ser Ser Thr Ser Ala Ser Thr Ser Ala Ser Thr Ser Thr Thr Asp
        35                  40                  45
Arg Arg Lys Ser Leu Leu Pro Gln Arg Ser Ile Pro Ser Gly Asp Arg
    50                  55                  60
Asp Arg Asp Arg Asp Gly Ala Ala Pro Val Arg Gln Gln Gln Gln Leu
65                  70                  75                  80
Glu Thr Arg Leu Gln Arg Gly Ser Arg Ile Leu Thr Lys Thr Pro Gly
                85                  90                  95
Ala Gln Lys Lys Gln Glu Glu Gly Val Ser Val Ser Ser Thr Ala Val
            100                 105                 110
Pro Ala Thr Ala Thr Leu Ala Asn Thr Arg Arg Gln Ser Leu Ile Arg
        115                 120                 125
Pro Ser Pro Leu Lys Thr Gly Thr Ala Thr Ala Thr Ala Thr Gly Ala
    130                 135                 140
Gly Thr Arg Thr Gly Thr Asn Pro Gly Gly Arg Ala Ala Thr Thr Pro
145                 150                 155                 160
Lys Ser Ala Thr Phe Ser Val Gln Gly Leu Ser Thr Phe Pro Met Lys
                165                 170                 175
Arg Asp Gly Val Ala Ser Met Ser Pro Lys Arg Thr Glu Met Pro Pro
            180                 185                 190
Pro Ala Arg Pro Thr Arg Ser Ala Ser Met Arg Gln Pro Leu Lys Ala
        195                 200                 205
Gly Thr Gly Thr Gly Thr Gly Thr Gly Ala Gly Ala Gly Ala Gly Ser
    210                 215                 220
Gly Thr Pro Ala Thr Gly Val Arg His Val Arg His Arg Ser Gln Ile
225                 230                 235                 240
Val Ala Pro Ser Ser Ser Gln Gly Gln Val Ser Arg Arg Ser Asp Ser
                245                 250                 255
Glu Ser Ser Gly Ser Thr Pro Met Thr Thr Pro Gly Leu Ala Ala Gly
            260                 265                 270
Thr Arg Pro Ser Gly Gln Phe Thr Thr Tyr Gln Gln Gln Phe Ser Pro
        275                 280                 285
Arg Lys Val Val Arg Pro Ala Ala Ser Ser Val Ala Ser Ala Ser Ala
    290                 295                 300
His Gly Glu Asp Ser Leu Ile Pro Thr Ser Trp Pro Glu Ile Ala Ala
305                 310                 315                 320
Leu Gln Thr Glu Leu Leu Gln Leu Ser Leu Leu His Ser Ser Ser Leu
                325                 330                 335
Gln Gln Met Ala Ala Leu Glu Ala Glu Ser Glu Glu Gln Leu Gln Thr
            340                 345                 350
Lys Tyr Asp Ala Val Ala Lys Thr Tyr Arg Ala Met Val Gly Glu Glu
        355                 360                 365
Lys Lys Arg Gln Arg Leu Leu Asn Gly Gln Ala Leu Asn Arg Trp Leu
```

```
    370                 375                 380
Glu Asn Ala Ser Glu His Gly Gly Arg Pro Asn Phe Ala Ala Gln Ile
385                 390                 395                 400
Gln Ala Phe Ser Gln Leu Val Gln Glu Val Cys Asp Leu Thr Asp Ser
                405                 410                 415
Leu Glu Gly Lys Tyr Thr Met Leu Val Gln Lys Phe Glu Glu Trp Phe
            420                 425                 430
Arg Lys Val Gln Ala Ile Glu Ser Met Arg Leu His Arg Gln Gln Gly
        435                 440                 445
Asp Ala Asn His Val Val Phe Ile Asp Pro Leu Asp Arg Val Trp Lys
    450                 455                 460
Asp Glu Val His Val Met Ile Val Thr Pro Val Phe Thr Tyr Xaa Glu
465                 470                 475                 480
Arg Arg His Pro Arg Leu Ile
                485
```

<210> 38159
<211> 312
<212> PRT
<213> A.fumigatus

```
<400> 38159
Pro Lys Ile Tyr Gln Gln Leu Ala Arg Ala Pro Leu Phe Thr Arg Thr
1               5                   10                  15
Ser Gln Thr Lys Leu Gln Asn Leu Leu Glu Arg Val Gln His Ile Leu
            20                  25                  30
Val Leu Arg Ala Leu Arg Ile Cys Ser Ser Asp Glu Pro Ser Thr Met
        35                  40                  45
Thr Gly Thr Ser Pro Asn Leu Tyr Ser Leu Pro Asn Thr Asp Ala Leu
    50                  55                  60
Ala Pro His Leu Arg Ala Tyr Val Leu Arg Cys Gln Asn Ser Ala Ile
65                  70                  75                  80
Asn Arg His Asn Thr Phe Arg Val Ala Val Ser Gly Gly Ser Leu Pro
                85                  90                  95
Ala Val Leu Ala Lys Ala Leu Leu Ala Pro Ser Asn Gly Ser Pro Glu
            100                 105                 110
Asp Thr Val Arg Phe Asp Lys Trp Asp Val Phe Phe Ala Asp Glu Arg
        115                 120                 125
Ala Val Pro Leu Asp His Pro Asp Ser Asn Tyr Arg Leu Leu Lys Asp
    130                 135                 140
Glu Leu Leu Ser Lys Ile Pro Ala Glu Met Gly Thr Pro Lys Val His
145                 150                 155                 160
Pro Ile Asp Ala Asp His Val Asn Asp Asp Thr Gln Glu Leu Ala Asp
                165                 170                 175
Leu Tyr Gln Glu Glu Leu Met Arg Ser Phe Ala Ala Lys Asp Ser Val
            180                 185                 190
Lys Leu Pro Val Phe Asp Leu Ile Leu Leu Gly Cys Gly Pro Asp Gly
        195                 200                 205
His Thr Cys Ser Leu Phe Pro Gly His Glu Leu Leu Arg Glu Lys Asp
    210                 215                 220
Ala Trp Val Ala Ala Glu Thr Asn Ser Pro Lys Pro Pro Pro Lys Arg
225                 230                 235                 240
Ile Thr Leu Thr Leu Pro Val Val Thr His Ala Val Ser Ile Ala Phe
                245                 250                 255
Val Ala Thr Gly Ala Gly Lys Lys Glu Ile Leu Lys Gln Ile Phe Asp
            260                 265                 270
```

```
Ala Glu Glu Gly Arg Glu Leu Pro Ser Ala Leu Val Asn Gln Gly Ala
        275                 280                 285
Gly Glu Lys Val Ser Trp Phe Thr Asp His Ala Ala Val Asp Gly Val
    290                 295                 300
Ser Phe Pro Arg Arg Gly Ser Leu
305                 310
```

<210> 38160
<211> 101
<212> PRT
<213> A.fumigatus

<400> 38160

```
Pro Val Glu Asn Gly Asp Ser Tyr Ser Tyr Ser Tyr Arg Arg Arg His
1               5                   10                  15
Lys Asp Gly Asn Glu Ser Gly Arg Glu Gly Cys Tyr Asn Ala Glu Glu
            20                  25                  30
Arg Asp Val Gln Arg Ala Arg Ile Val Asp Leu Ser Asp Glu Lys Gly
        35                  40                  45
Trp Gly Cys Val Asn Val Pro Glu Glu Asn Gly Asp Ala Ala Ala Gly
    50                  55                  60
Ala Ala Asp Ser Val Gly Val Asp Glu Thr Ala Phe Glu Ser Trp Tyr
65                  70                  75                  80
Trp Tyr Trp Tyr Trp Tyr Trp Cys Trp Cys Gly Cys Gly Phe Arg Asp
                85                  90                  95
Pro Gly Asp Trp Gly
            100
```

<210> 38161
<211> 122
<212> PRT
<213> A.fumigatus

<400> 38161

```
Ala Cys Ala Ala Pro Glu Pro Asp Cys Gly Ala Val Val Glu Pro Gly
1               5                   10                  15
Ser Gly Phe Gln Glu Glu Arg Leu Gly Ile Phe Trp Val Asp Ala Tyr
            20                  25                  30
Asp Asp Pro Arg Val Gly Gly Trp Asp Glu Thr Glu Arg Ala Val Tyr
        35                  40                  45
Asn Val Ser Ala Ala Val Phe Ala Glu Glu Gly Ser Glu Thr Arg Ser
    50                  55                  60
Phe Ile Gly Cys Gln Arg Val Arg Ala Trp Gly Gly Phe Thr Asp Pro
65                  70                  75                  80
Asp Val Val Ala Arg Asp Arg Gly Ala Ser Asp Gly Ile Thr Thr Val
                85                  90                  95
Glu Leu Ala Thr Phe Val Val Thr Thr Ala Asp Gly Ser Thr Gly Gly
            100                 105                 110
Arg Val Gly Gly Thr Ala Thr Asp Gln Val
        115                 120
```

<210> 38162
<211> 93
<212> PRT
<213> A.fumigatus

<400> 38162
Arg Gly Arg Gln Ser Arg His Val Leu Ile Arg Gln Asp Ser Phe Tyr
1 5 10 15
His Asn Leu Phe Glu Gly Val Lys Ile Leu Val Gln Leu Ser Gly Asn
20 25 30
Leu Val His Glu Phe His Ile Ile Glu Ser Leu Val Gly Cys Gln Gly
35 40 45
Gly Leu Gln Lys Val Cys Asn Gly Phe Gly Leu Asp Asn Ala Thr Gly
50 55 60
Ser Pro Asp Leu Lys Ala Leu Ala Glu Ile Asn Val Pro Leu Phe Val
65 70 75 80
Leu Gly Ser Ala Arg Asp Gln Phe Glu Thr Leu Ala Lys
85 90

<210> 38163
<211> 121
<212> PRT
<213> A.fumigatus

<400> 38163
Ser Gln Glu Asn Thr Met Ile Ala Pro Ala Pro Thr Ile Thr Tyr Glu
1 5 10 15
Ser Leu Arg Asn Ile Pro Leu Ser Tyr Ala Thr Cys Ser Ile Gly Ser
20 25 30
Ser Asn Ala Asp Thr Leu Pro Arg Lys Leu Glu Ala Ile Ser Lys Ala
35 40 45
Gly Phe Thr Gly Ile Glu Leu Ser Phe Pro Asp Ile Ile Asp Tyr Gly
50 55 60
Ser Arg Asp Pro Glu Leu Gln Val Ser Pro Gly Ile Thr Pro Pro Asn
65 70 75 80
Phe Ser Leu Phe Pro Gly Lys Asn Ser Glu Ser Ser Gly Val Thr Gln
85 90 95
Gln Ile Pro Lys Met Asn Asn Ser Phe Arg Pro Val Leu Arg Lys Phe
100 105 110
Pro Arg Ala Val Pro Pro Arg Val Leu
115 120

<210> 38164
<211> 533
<212> PRT
<213> A.fumigatus

<400> 38164
Gly Thr Gln Ile Asp Gln Val Arg Ser Leu Leu Arg Thr Pro Ile Met
1 5 10 15
Pro Ser Ser Gln Asp Pro Ile Gln Arg Phe Lys Arg Ile Gly Ile Val
20 25 30
Gly Ala Gly Asn Met Gly Ser Met Met Thr Phe Ala Phe Ser Glu Leu
35 40 45
Gly Cys Asp Val Ser Val Trp Asp Val Asp Pro Lys Asn Val Asp Ser
50 55 60
Val Met Lys Phe Ala Lys Asp Ala Gln His Leu Lys Gly Lys Ile Tyr
65 70 75 80
Gly Tyr Tyr Thr Ile Asp Glu Phe Thr Lys Ser Leu Glu Gly Lys Ala
85 90 95
Glu Arg Lys Leu Phe Leu Phe Ser Ile Thr His Gly His Pro Ala Asp

```
                100                 105                 110
Ser Val Leu Gly Met Ile Lys His Asp Leu Lys Ala Gly Asp Ile Ile
        115                 120                 125
Leu Asp Gly Gly Asn Glu Asn Tyr Arg Arg Thr Glu Arg Arg Gln Arg
    130                 135                 140
Glu Cys Ala Gly Ile Gly Val His Trp Ile Gly Met Gly Val Ser Gly
145                 150                 155                 160
Gly Tyr Gln Ser Ala Arg His Gly Pro Ser Leu Ser Pro Gly Gly Asp
                165                 170                 175
Ala Lys Ala Leu Glu Leu Val Met Pro Leu Leu Glu Leu Tyr Ser Ala
            180                 185                 190
Lys Asp Arg Lys Thr Gly Gln Pro Cys Val Thr Arg Ile Gly Pro Gly
        195                 200                 205
Gly Ser Gly His Tyr Val Lys Met Val His Asn Gly Ile Glu Gly Gly
    210                 215                 220
Met Leu Ser Thr Leu Ala Glu Ala Trp Ser Ile Leu His Asn Gly Leu
225                 230                 235                 240
Gly Leu Asn Tyr Asp Glu Ile Gly Asp Ile Phe Ser Lys Trp Asn Ser
                245                 250                 255
Asp Gly Glu Leu Lys Asn Asn Tyr Leu Leu Gln Ile Gly Ala Asp Met
            260                 265                 270
Leu His Arg Arg Arg Thr Pro Gln Gly Asp Tyr His Gly Glu Gly Ala
        275                 280                 285
Ser Lys Asp Asp Gly Tyr Val Leu Asp Asp Val Leu Asp Lys Val Val
    290                 295                 300
Gln Asp Asp Asp Asn Thr Glu Gly Thr Pro Tyr Trp Ser Ile Met Glu
305                 310                 315                 320
Ser Ala Glu Arg His Val Ser Ala Pro Thr Leu Ala Thr Ala His Tyr
                325                 330                 335
Leu Arg Val Ala Ser Gly Asn Arg Glu Glu Arg Leu Arg Val Ala Lys
            340                 345                 350
Lys Leu His Met Pro Ile Pro Lys Pro Ile Glu Thr Ile Lys Asp Arg
        355                 360                 365
Gly Ala Phe Ile Glu Asn Leu Arg Arg Ala Val Tyr Cys Ser Phe Leu
    370                 375                 380
Ala Ser Phe Cys Gln Gly Leu Glu Leu Ile Ser Arg Ala Ser Glu Asp
385                 390                 395                 400
Glu Lys Trp Asp Ile Asp Leu Gly Lys Cys Leu Gln Ile Trp Arg Ala
                405                 410                 415
Gly Cys Ile Ile Gln Ser Glu Ala Ile Ala Asp Leu Leu Gln Pro Ala
            420                 425                 430
Leu Thr Ser Asn Lys Arg Leu Asn Asn Met Lys Phe Val Asp Glu Val
        435                 440                 445
Ala Arg Glu Leu His Lys Asn Phe Asp Ala Leu Lys Glu Ile Val Ile
    450                 455                 460
Glu Gly Val Leu Ser Asp Gln Tyr Met Pro Ala Leu Ser Ala Thr Leu
465                 470                 475                 480
Glu Tyr Leu Lys Tyr Glu Gly Gly Thr Met Leu Pro Thr Lys Phe Met
                485                 490                 495
Glu Ala Gln Met Asp Tyr Phe Gly Ala His Ala Tyr Asn Lys Pro Ser
            500                 505                 510
Val Pro Gly Glu Asp Pro Gly Pro Val Arg Lys Gly Pro His His Tyr
        515                 520                 525
Glu Trp Lys Pro Ala
    530
```

<210> 38165
<211> 181
<212> PRT
<213> A.fumigatus

<400> 38165
Ser Leu Ile Asn Leu Glu Pro Val Arg Ile Ala Val Ile Gly Gly Thr
1 5 10 15
Gly Leu Arg Glu Leu Pro Gly Phe Thr Gln Val Ala Ser Leu Ser Ile
20 25 30
Thr Thr Pro Trp Gly Ser Pro Ser Ser Pro Ile Thr Ile Leu His His
35 40 45
Gln Cys Ser His Asn Asn Lys Thr Val Ala Val Ala Phe Leu Ser Arg
50 55 60
His Gly Thr His His Gln Ile Ala Pro His Glu Val Pro Ala Arg Ala
65 70 75 80
Asn Ile Ala Ala Leu Arg Ser Ile Gly Val Arg Thr Ile Ile Ala Phe
85 90 95
Ser Ala Val Gly Ser Leu Gln Glu Glu Ile Lys Pro Arg Asp Phe Val
100 105 110
Ile Pro Asp Gln Val Ile Asp Arg Thr Lys Gly Val Arg Pro Trp Thr
115 120 125
Phe Phe Glu Gly Gly Val Val Ala His Val Pro Phe Gly Asp Pro Phe
130 135 140
Asp Glu Gly Val Ala Lys Val Val Arg Ala Cys Gly His Ser Leu Glu
145 150 155 160
Gly Glu Gly Val Val Leu His Asp Arg Gly Thr Leu Ile Cys Met Gly
165 170 175
Thr Ser Phe Val Leu
180

<210> 38166
<211> 241
<212> PRT
<213> A.fumigatus

<400> 38166
Asn Val Arg Ile Leu Leu Thr Leu Ser Asn Ile Lys Ala Leu Gln Ala
1 5 10 15
Glu Phe Val Pro His Leu Val Thr Asn Phe Glu Thr Ser Phe Ser Val
20 25 30
Lys Leu Thr Glu Glu Ala Lys Thr Ile Arg Asp Val Leu Gly Gln Ile
35 40 45
Asp Asp Arg Leu Phe Gln Ser Tyr Thr Lys Pro Thr Val Asn Lys Leu
50 55 60
Asn Thr Met Ile Val Ser Gly Ile Thr Asp Pro Glu Trp Glu Pro Ser
65 70 75 80
Ser Gly Arg Pro Glu Gln Val Arg Pro Tyr Val Tyr Ser Val Leu Leu
85 90 95
Thr Leu Val Leu Val His Thr Glu Ile Ser Thr Thr Ile Pro Ser Cys
100 105 110
Val Ala Ser Gly Ala Ser Arg Ser Pro Pro Ala Ala Pro Ser Pro Leu
115 120 125
Leu Asn Met Val Leu Thr His Leu Leu Thr Gln Ile Ser Thr Ser Leu
130 135 140
Leu Asn Ala Phe Arg Ser Arg Pro Ser Tyr Thr Leu Ala Ala Leu Met

```
145                 150                 155                 160
Gln Ala Thr Leu Asp Thr Glu Phe Ile Ala Gln Thr Leu Ser Gln Tyr
                165                 170                 175
Ser Thr Glu Glu Ala Ser Thr Val Gln Ser Gln Ile Tyr Val Glu Leu
            180                 185                 190
Asp Gln Arg Thr Thr His Glu Ala Arg Ala Arg Leu Gln Ser Glu Leu
        195                 200                 205
Gly Glu Met Arg Ser Ile Leu Lys Arg Leu Arg Glu Arg Thr Lys Gly
    210                 215                 220
Glu Phe Ala Cys Phe Lys Lys Pro Arg Ser Gly Thr Gly His Lys Ala
225                 230                 235                 240
Ala
```

<210> 38167
<211> 310
<212> PRT
<213> A.fumigatus

<400> 38167

```
Arg Phe Pro Asp Arg Ser Phe Ser Pro Val Gly Phe Glu Gly Glu Ser
1               5                   10                  15
Arg Arg His His Arg Leu Ser Glu Ser Glu Thr Arg Lys Leu Gln Thr
            20                  25                  30
Gly Val Val Glu Leu Val Asn Leu Ile Arg Glu Asn Val Leu Ser Leu
        35                  40                  45
Phe Ala Asp Pro Pro Leu Asp Asp Ala Ser Phe Leu Ala Ser Pro Ile
    50                  55                  60
Ser Pro Ala Thr Pro Asn Ser Pro Ile Ser Gln Gly Val Thr Pro Thr
65                  70                  75                  80
Glu Ser Arg Phe Lys Leu Asp Pro Lys Asn Met Pro Ile Pro Thr Pro
                85                  90                  95
Lys Arg Gly Glu Phe Trp Glu Asp Tyr Ala Phe Trp Pro Pro Phe Ser
            100                 105                 110
Asn Ser Leu Ser Gly Val His Tyr Leu Gly Gln Phe Met Ile Ile Ile
        115                 120                 125
Gly Thr Ala Ala Ser Glu Met Ala Ala Leu Asn Pro Val Ala Ser Gly
    130                 135                 140
Gly Asn Thr His Asp Leu Leu Lys Ser Leu Val Ser Ile Ala Arg Glu
145                 150                 155                 160
Arg Ser Val Arg Val Ala Cys Ala Ala Trp Gly Lys Asp Ala Glu Ile
                165                 170                 175
Cys Lys Met Leu Glu Asp Trp Thr Arg Asp Pro Glu Ser Lys Asp Leu
            180                 185                 190
Thr Lys Met Pro Gly Leu Phe Val Ala Phe Glu Ser Ala Ile Leu Gly
        195                 200                 205
Arg Met Gln Lys Ile Leu Tyr Ile Ser Glu Ala Met Ala Lys Ser Gly
    210                 215                 220
Ala Val Asp Val Val Thr Gln Pro Pro Ala Lys Leu Leu Gln Met Val
225                 230                 235                 240
Arg Thr Gln Phe Val Ser Ser Val Tyr Lys Ala Leu Ser Gly Leu Val
                245                 250                 255
Glu Asn Ala Glu His Pro Val Gly Leu Asp Glu Gly Ser Glu Trp Ile
            260                 265                 270
Leu Ala Gly Ser Ala Val Gln Val His Gly Ser Asp Ser Thr Ser Pro
        275                 280                 285
```

```
Ala Leu Ala Ala Asp Thr Val Asp Ser Gln Asp Arg Val Gly Leu Ser
    290                 295                 300
Leu Asn Leu Leu Pro Ser
305                 310
```

<210> 38168
<211> 510
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (507)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38168

```
His Glu Val Lys Gln Leu Ile His Ser Ser Pro Phe Asp Pro Glu Pro
1               5                  10                  15
Trp Arg Tyr Thr Ser Met Thr Asp Ile Glu Val Ala Asn Tyr Tyr Asn
            20                  25                  30
Leu Pro Ser Ala Tyr Pro Glu Glu Trp Pro Ala Glu Leu Asp Gln Ser
        35                  40                  45
Glu Pro Ser Asp Asp Glu Glu Ala Leu Gly Arg Thr Pro Ser Arg Ala
    50                  55                  60
Arg Arg Ser Arg Tyr Phe Ala Leu Glu Arg Ser His Ser Gly Lys Ala
65                  70                  75                  80
Leu Ser Leu Gly Pro Phe Lys Gly Ser Asn Ala Arg Glu Asn Leu Ala
                85                  90                  95
Lys Val Asp Glu Pro Asp Pro Leu Gly Ser Gly Asp Ser Val Leu Gln
            100                 105                 110
Ile Leu Lys Lys Arg Gly Leu Ser Leu Glu Asp Glu Ser Arg Leu Arg
        115                 120                 125
Asn Arg Phe Leu Leu Ser Ser Thr Ser Phe Ser Pro Ala Leu Phe Leu
    130                 135                 140
Ser Gln Val His Ser Asp Ala Ser Ile Glu Ser Leu Leu Glu Gly Leu
145                 150                 155                 160
Asn Phe Leu Ser Arg Ser Ile Asp Gln Lys Ser Ala Ser Leu Lys Val
                165                 170                 175
Leu Val Glu Ala Asn Phe Glu Arg Phe Val Arg Ala Lys Ala Thr Ile
            180                 185                 190
Asp Ser Val Tyr Thr Glu Met Arg Asn Gln Gly Lys Glu Lys His Val
        195                 200                 205
Pro Leu Thr Gln Ala His Arg Arg Ser Ala Gly His Leu Arg Ser Ile
    210                 215                 220
Ser Gly Ala Ser Arg Ser Ala Pro Leu Ala Asp Asp Arg Pro Gly Lys
225                 230                 235                 240
Asn Ala Leu Thr Lys Glu Ser Asp Tyr Gly Met Lys Gly Ile Arg Val
                245                 250                 255
Pro Leu Leu Glu Ala Ser Val Lys Ala Glu Glu Val Trp Gly Pro Ala
            260                 265                 270
Leu Gly Gly Arg Glu Arg Glu Gln Met Leu Lys Ser Val Val Asp Thr
        275                 280                 285
Met Glu Lys His Arg Asp Val Tyr Glu Ile Gly Gly Leu Leu Ser Lys
    290                 295                 300
Ser Ile Lys Leu Arg Asp Tyr Asp Ser Val Phe Glu Gln Tyr Thr Lys
305                 310                 315                 320
```

```
Ala Arg Thr Leu Ala Lys Ser Ala Lys His Ile Ala His Lys Ala Thr
                325                 330                 335
Ser Ser Gly Arg Ser Leu Thr Asp Glu Glu Thr His Ala Ile Leu Ala
            340                 345                 350
Met Gly Arg Met Trp Met Asp Val Asp His Gln Ile Gln Ala Phe Lys
        355                 360                 365
Arg Asp Leu Trp Arg Arg Leu Ser Asp Ala Pro Thr Thr Ser Thr Thr
    370                 375                 380
Ala Thr Ala Asp Gly Thr Val Glu Glu Tyr Met Glu Leu Ile Gly Ala
385                 390                 395                 400
Leu Leu Glu Leu Gly Val Asp Asp Asn Pro Ile Trp Val Trp Leu Leu
                405                 410                 415
Ser Arg Tyr Asp Phe Leu Lys Thr Lys Ile Gly Ala Phe Cys Gly Arg
            420                 425                 430
Cys Lys Met Glu Ile Glu Ile Leu Arg Arg Arg Leu Ala Gly Gly Asp
        435                 440                 445
Lys Pro Thr Pro Lys Ala Val Ala Ser Tyr Leu Arg Leu Ala Pro Arg
    450                 455                 460
Glu Glu Ser Ala Glu Leu Gln Gly Val Leu Asp Thr Asp Gln Val Val
465                 470                 475                 480
Glu Leu Trp Glu Cys Ile Leu Ala Tyr Leu Asn Lys Leu Leu Ala Ser
                485                 490                 495
Gln Gly Gly Leu Leu Gly Glu Val Phe Glu Xaa Leu Gly Lys
            500                 505                 510
```

<210> 38169
<211> 77
<212> PRT
<213> A.fumigatus

<400> 38169

```
Val Ile Pro Ala Cys Phe Ser Thr Leu Cys Phe Leu Ser Lys Arg Val
1               5                   10                  15
Ser Gly Val Thr Val Gly Ala Val Val Ile Pro Gln Gly Met Ala Tyr
            20                  25                  30
Ala Lys Leu Ala Ala Leu Pro Val Glu Phe Gly Leu Tyr Ser Ser Phe
        35                  40                  45
Met Gly Val Leu Ile Tyr Trp Phe Phe Ala Thr Ser Lys Asp Ile Thr
    50                  55                  60
Ile Gly Val Ser Asn Thr Thr Phe Cys Ser Leu Arg Ala
65                  70                  75
```

<210> 38170
<211> 442
<212> PRT
<213> A.fumigatus

<400> 38170

```
Pro Val Ala Val Met Ser Thr Leu Val Gly Thr Ile Val Leu Lys Ala
1               5                   10                  15
Gln Lys Glu Ile Pro Asp Val Pro Pro Tyr Ile Ile Ala Ser Ala Met
            20                  25                  30
Ala Ile Ile Cys Gly Gly Ile Val Cys Ala Met Gly Leu Leu Arg Leu
        35                  40                  45
Gly Phe Ile Val Asp Phe Ile Pro Leu Pro Ala Ile Ser Ala Phe Met
    50                  55                  60
```

```
Thr Gly Ser Ala Leu Asn Ile Cys Ser Gly Gln Val Lys Asp Leu Leu
65                  70                  75                  80
Gly Glu Thr Ala Ser Phe Ser Thr Arg Gly Ala Thr Tyr Asn Ile Ile
                85                  90                  95
Ile Ser Thr Leu Lys His Leu Pro Ser Ala Gly Leu Asp Ala Ala Met
            100                 105                 110
Gly Val Ser Ala Leu Ala Met Leu Tyr Ile Ile Arg Ser Ala Cys Ser
        115                 120                 125
Tyr Gly Ala Lys Arg Tyr Pro Gln Arg Ala Lys Thr Phe Phe Phe Leu
    130                 135                 140
Ser Thr Leu Arg Thr Val Phe Val Ile Leu Phe Tyr Thr Met Ile Ser
145                 150                 155                 160
Ala Ala Val Asn Ile His Arg Arg Gln His Pro Ala Phe Lys Leu Leu
                165                 170                 175
Gly Lys Val Pro Arg Gly Phe Gln His Ala Ala Val Pro Val Val Asn
            180                 185                 190
Ala Arg Ile Leu Lys Thr Phe Ala Gly Glu Leu Pro Ala Ala Val Ile
        195                 200                 205
Val Leu Leu Ile Glu His Ile Ala Ile Ser Lys Ser Phe Gly Arg Val
    210                 215                 220
Asn Asn Tyr Thr Ile Asp Pro Ser Gln Glu Leu Val Ala Ile Gly Val
225                 230                 235                 240
Thr Asn Leu Leu Gly Pro Phe Leu Gly Gly Tyr Pro Ala Thr Gly Ser
                245                 250                 255
Phe Ser Arg Thr Ala Ile Lys Ser Lys Ala Gly Val Arg Thr Pro Leu
            260                 265                 270
Ala Gly Cys Ile Thr Ala Val Val Val Leu Leu Ala Ile Tyr Ala Leu
        275                 280                 285
Pro Ala Met Phe Phe Tyr Ile Pro Lys Ala Ser Leu Ala Gly Val Ile
    290                 295                 300
Ile His Ala Val Gly Asp Leu Ile Thr Pro Pro Asn Thr Val Tyr Gln
305                 310                 315                 320
Phe Trp Arg Val Ser Pro Leu Asp Ala Ile Ile Phe Phe Ile Gly Val
                325                 330                 335
Phe Val Thr Val Phe Thr Ser Ile Glu Ile Gly Ile Tyr Cys Thr Val
            340                 345                 350
Ala Val Ser Ala Ala Val Leu Leu Phe Arg Val Ala Lys Ala Arg Gly
        355                 360                 365
Gln Phe Leu Gly Arg Val Thr Ile His Ser Val Ile Gly Asp His Leu
    370                 375                 380
Val Gln Gly Asp Gly Lys Tyr Gly Pro Ala Asn Gly Tyr Thr Pro Ala
385                 390                 395                 400
Asp Gly Gln Gly Asn Phe Gln Arg Ser Ile Phe Leu Pro Ile Asp His
                405                 410                 415
Pro Asp Gly Ser Asn Pro Glu Val Glu Val Gln Gln Pro Tyr Pro Gly
            420                 425                 430
Ile Phe Ile Tyr Gln Ile Leu Arg Arg Ile
        435                 440
```

<210> 38171
<211> 127
<212> PRT
<213> A.fumigatus

<400> 38171
Gly His Gly Ile Leu Tyr Pro Ile Phe Gln Thr Ser Pro Gly Pro Phe

```
1               5                   10                  15
Glu Arg Leu Ser Thr Tyr Thr Thr Ile Met Ser Ala Asp Leu Lys Thr
            20                  25                  30
Lys Ile Gly His Gly Leu Ala Lys Gly Leu Gly Ile Lys Leu Pro Tyr
        35                  40                  45
Arg Asp Pro Leu Gly Ala Asn Ala Asp Pro Val Thr Arg Gly Glu Ser
    50                  55                  60
Met Phe Ser Val Gly Thr Val Asp Thr Tyr Ser Tyr Val Glu Pro Glu
65                  70                  75                  80
Pro Thr Ser Ala Glu Trp Leu Arg Glu Leu Cys Pro Thr Trp Arg Asp
                85                  90                  95
Val Gly His Tyr Phe Tyr Arg Leu Phe Pro Phe Leu Thr Trp Ile Thr
            100                 105                 110
Arg Tyr Asn Trp Gln Trp Phe Leu Gly Asp Val Val Ala Gly Lys
        115                 120                 125
```

<210> 38172
<211> 168
<212> PRT
<213> A.fumigatus

```
<400> 38172
Ala Tyr Cys His Leu Gln Val Leu Arg Pro Gly Gln Gln Leu Tyr His
1               5                   10                  15
Arg Pro Ile Ser Gly Ala Gly Cys Asp Trp Cys Tyr Lys Ser Ala Gly
            20                  25                  30
Pro Val Leu Gly Trp Leu Pro Cys His Arg Ile Leu Phe Pro Asn Cys
        35                  40                  45
His Gln Val Gln Gly Gly Ser Ala Asn Ser Ser Gly Trp Leu His Tyr
    50                  55                  60
Arg Ser Arg Arg Ala Ala Cys His Leu Arg Leu Ala Gly Tyr Val Leu
65                  70                  75                  80
Leu His Pro Gln Gly Ile Pro Arg Gly Arg Tyr His Pro Arg Gly Gly
                85                  90                  95
Arg Pro Tyr Tyr Ser Ala Lys His Arg Leu Pro Val Leu Ala Arg Leu
            100                 105                 110
Ser Leu Gly Cys Asp His Leu Leu Tyr Arg Cys Val Cys His Arg Leu
        115                 120                 125
His Leu His Arg Asp Trp Asn Leu Leu His Arg Arg Cys Phe Arg Ser
    130                 135                 140
Arg Ser Ala Val Pro Cys Cys Gln Ser Ala Trp Pro Ile Leu Gly Lys
145                 150                 155                 160
Gly Asp His Pro Leu Gly His Arg
                165
```

<210> 38173
<211> 560
<212> PRT
<213> A.fumigatus

```
<400> 38173
Pro Glu Cys His His Pro Val Lys Gly Trp Leu Arg Ser Ser Ala Leu
1               5                   10                  15
Gln Met Ser Met Val Pro Lys Pro Ser Ser Gly Leu Pro Phe Trp Ser
            20                  25                  30
His Met Gly Gly Thr Ala Arg Thr Phe Ile Thr Ala Ser Met Gln Ser
```

```
        35                  40                  45
His Leu Arg Arg Cys Ser Cys Ala Gln Ile Ala Asp Pro Thr Ser Phe
    50                  55                  60
His Pro Lys Ser Phe Ser Glu Val Asn Pro Glu His Arg Ser Glu His
65                  70                  75                  80
Ser Ala Trp Glu Thr Pro Asp Pro Gly Phe Trp Thr Lys His Gly Tyr
                85                  90                  95
Ala Ile Val Arg Ala Asp Glu Arg Gly Thr Gly Gln Ser Arg Gly Lys
            100                 105                 110
Leu Asp Thr Met Ser Arg Glu Thr Ser Glu Ala Phe Phe Asp Val Ile
        115                 120                 125
Glu Trp Ala Ala Glu Gln Pro Trp Ser Thr Gly Lys Ile Gly Leu Leu
    130                 135                 140
Gly Ile Ser Tyr Tyr Ala Gly Ser Gln Trp Arg Val Ala Ala Arg Gln
145                 150                 155                 160
Pro Lys Gly Leu Ala Cys Ile Ile Pro Trp Glu Gly Met Ser Asp Tyr
                165                 170                 175
Tyr Arg Asp Arg Cys Arg His Gly Gly Ile Leu Ser Asn Ser Phe Ile
            180                 185                 190
Lys Phe Trp Trp Asp Arg Gln Val Val Ser Asn Gln Tyr Gly Arg Pro
        195                 200                 205
Gly Arg Ala Ala Arg Asn Trp Gly Pro Asp Thr Ile Glu Gly Asp Leu
    210                 215                 220
Pro Glu Glu Glu Leu Val Ala Asn Arg Gln Asp Gln Thr Ile Asp Asn
225                 230                 235                 240
Ala Glu Asn Tyr Phe Arg Asp Asp Ile Tyr Tyr Ala Ser Lys Glu Tyr
                245                 250                 255
Thr Pro Ser Asp Ile Gln Val Pro Leu Leu Ser Val Ala Asn Trp Gly
            260                 265                 270
Gly Ile Leu Leu His Leu Arg Gly Asn Val Glu Gly Tyr Thr Gln Ala
        275                 280                 285
Gly Ser Glu Leu Lys Tyr Leu Arg Phe Ile Thr Gly Arg His Asp Leu
    290                 295                 300
Pro Phe Tyr Tyr Ala Glu Glu Val Glu Ile Gln Arg Ser Phe Leu Asp
305                 310                 315                 320
Ala Phe Leu Lys Gly Glu Asp Arg Val Gly Trp Ser Asn Gly Thr Ala
                325                 330                 335
Pro Lys Val Asp Leu Val Leu Arg Lys Gly Asp Val Gly Phe Asp Asn
            340                 345                 350
Ala Glu Ala Glu Lys Gln Phe Pro Arg Arg Val Glu Asn Glu Trp Pro
        355                 360                 365
Ile Ala Arg Thr Gln Tyr Thr Lys Tyr Tyr Leu Thr Ser Asp Arg Gln
    370                 375                 380
Leu Val Thr Glu Pro Arg Gln Glu Arg Pro Gly Lys Ile Thr Tyr Arg
385                 390                 395                 400
Ala Leu Gly Thr Leu Asp Asn Pro Gln Leu Val Gln Phe Thr Thr Ala
                405                 410                 415
Pro Phe Glu Gln Glu Thr Glu Ile Thr Gly His Ile Val Ala His Leu
            420                 425                 430
Asn Val Ser Met Ser Pro Glu Pro Gly Ala Pro Thr Pro Arg Asp Ile
        435                 440                 445
Asp Leu Phe Val Thr Leu Arg Tyr Ile Ser Pro Glu Gly Lys Glu Val
    450                 455                 460
Phe Tyr Thr Gly Thr Ala Gly Asp Pro Val Pro Leu Cys Lys Gly Trp
465                 470                 475                 480
Leu Arg Val Ser Met Arg Lys Val Asn Lys Glu His Arg Arg His Arg
```

```
                485                 490                 495
Ser Tyr Leu Pro His Arg Asp Tyr Tyr Ser Thr Asp Ala Leu Pro Val
            500                 505                 510
Ile Pro Gly Glu Val Tyr Gly Val Asp Val Glu Val Trp Pro Thr Asn
        515                 520                 525
Val Val Val Glu Lys Gly Gly Arg Ile Val Phe Glu Val Ser Ser Gly
    530                 535                 540
Asp Thr Gln Gly Cys Gly Ile Phe Gln His Asn Ser Pro Thr Asp Arg
545                 550                 555                 560
```

<210> 38174
<211> 213
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (212)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38174

```
Leu Thr Ser Ala Leu Leu His Leu Gly Gln Thr His Gln Lys Asp Thr
1               5                   10                  15
Gln Gly Pro Pro Val Thr Pro Leu Tyr Gln Thr Ile Leu Pro Lys Met
            20                  25                  30
Pro Ser Lys Pro Lys Asn Ile Arg Pro Leu Gln Arg Tyr Ile Thr Thr
        35                  40                  45
His Asp Ala Ser Gly Lys Ala Ile Phe Ser Ser Ala Leu Ser Glu Glu
    50                  55                  60
Met Pro Val Thr Thr Met Ala Asp Gly Ala Asp Phe Ser Leu Ala Tyr
65                  70                  75                  80
Thr Ser Ser His Phe Pro Ala Lys Leu Ile Asn Asp Asp Asp Ile Pro
                85                  90                  95
Glu Tyr Ala Asn Tyr Leu Ser Ser Pro Pro Gly Ile Val Ile Ser Thr
            100                 105                 110
Gly Thr Val Cys Arg Ile Val Asp Met Gln Pro Gly Ala Thr Ser Pro
        115                 120                 125
Met His Arg Thr Val Ser Leu Asp Tyr Gly Val Val Leu Glu Gly Glu
    130                 135                 140
Val Glu Leu Val Leu Asp Ser Gly Glu Thr Arg Leu Met Lys Arg Gly
145                 150                 155                 160
Asp Val Ser Val His Arg Gly Thr Asn His Ala Trp Arg Asn Thr Ser
                165                 170                 175
Gln Thr Glu Trp Ala Arg Met Leu Tyr Val Leu Val Pro Ala Glu Ala
            180                 185                 190
Ile Glu Ile Gly Gly Lys Lys Leu Gly Glu Glu Val Arg Glu Ile Arg
        195                 200                 205
Val Arg Pro Xaa Thr
    210
```

<210> 38175
<211> 179
<212> PRT
<213> A.fumigatus

<400> 38175

```
Lys Asp Gly Ser Gly Leu Val Arg Cys Lys Cys Leu Trp Ser Gln Ser
1               5                  10                  15
Pro Arg Ala Gly Ser Arg Ser Gly His Ile Trp Ala Val Arg Gln Gly
            20                  25                  30
His Ser Leu Pro Arg Val Cys Ser Pro Ile Cys Ala Ala Val His Val
        35                  40                  45
Pro Arg Leu Leu Thr Arg Pro Val Ser Thr Pro Ser His Ser Ala Lys
    50                  55                  60
Ser Thr Arg Ser Thr Ala Arg Ser Ile Pro Arg Gly Arg Arg Pro Thr
65                  70                  75                  80
Pro Val Ser Gly Pro Ser Thr Ala Met Arg Leu Phe Gly Arg Thr Arg
                85                  90                  95
Glu Ala Gln Val Asn His Gly Ala Ser Trp Thr Pro Cys Arg Ala Lys
            100                 105                 110
Pro Ala Arg Pro Phe Ser Thr Ser Ser Ser Gly Gln Arg Asn Ser His
        115                 120                 125
Gly Arg Pro Ala Arg Leu Gly Cys Trp Val Ser Ala Thr Thr Arg Val
    130                 135                 140
Ala Ser Gly Glu Ser Pro Arg Ala Ser Pro Arg Ala Ser Pro Ala Leu
145                 150                 155                 160
Ser Pro Gly Arg Ala Cys Arg Thr Thr Thr Gly Thr Val Ala Ala Met
                165                 170                 175
Glu Ala Ser
```

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<210> 38176
<211> 76
<212> PRT
<213> A.fumigatus

<400> 38176

```
Phe His Cys Ile His Cys Cys Leu Gly Thr Thr Ser Gly Ala Glu Ile
1               5                  10                  15
Ile Gly Phe Ser Asp Leu Ile Leu Ser Arg Pro Arg Ala Pro Pro Trp
            20                  25                  30
Val Tyr Ile Pro Glu Ser Tyr Asp Tyr Gln Ser Asn Asn Asn Gly Arg
        35                  40                  45
Ile Phe Arg Val Ile Gln Leu Glu Ser Ile His Thr Lys Ala Thr Ile
    50                  55                  60
Ile Ser Gln Pro Tyr Leu Ser Met Pro Ser Gly Glu
65                  70                  75
```

<210> 38177
<211> 241
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (191)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38177

```
Cys Pro Ala Met Leu Thr Thr Asn Thr Gln Lys Trp Leu Leu Val His
1               5                  10                  15
Arg Ala His Leu His Glu Gly Leu Lys Ala Ala Ala Leu Ala Pro Gly
```

```
            20                  25                  30
Ser Gly Ile Pro Ala Glu Leu His Thr Ser Ser Lys Val Ile Asp Ile
        35                  40                  45
Asp Pro His Arg Ala Thr Val Thr Leu Glu Asp Gly Gln Val Val Gln
    50                  55                  60
Gly Asp Val Val Ile Ala Ala Asp Gly Val His Ser Val Ala Arg Ser
65                  70                  75                  80
Lys Leu Pro Arg Ala Ser Asn Val Ala Pro Tyr Asp Cys Gly Arg Asn
                85                  90                  95
Ala Phe Arg Cys Leu Met Ser Arg Gln Ala Ala Leu Asp Asp Pro Glu
            100                 105                 110
Thr Arg Glu Leu Ala Thr Glu Arg Gly Val Ile Asp Met Trp Asp Ser
        115                 120                 125
Pro Glu Arg Arg Val Val Ile Tyr Pro Cys Gln Asn Asn Glu Ile Leu
    130                 135                 140
Asn Phe Val Cys Leu His Pro Ser Thr Met Thr Ala Ile Glu Asn Gly
145                 150                 155                 160
Thr Glu Trp Asn His Ser Gly Gly Lys Glu Ser Ser Ile Glu Val Ser
                165                 170                 175
Lys Asp Phe Asp Pro Leu Leu Val Lys Leu Leu Gly Gln Ala Xaa Gly
            180                 185                 190
Glu Thr Leu Arg Ile Trp Pro Leu Trp Asp Met Asp Thr Leu Pro Asn
        195                 200                 205
Arg Gly Leu Lys Phe Asp Gly Cys Pro Trp Gly Ile Ala Ala Ile Pro
    210                 215                 220
Phe Leu Ala Gln Ser Trp Ser Gly Arg Gly Pro Gly Leu Leu Lys Glu
225                 230                 235                 240
Trp
```

Sequence Listing

<210> 38178
<211> 187
<212> PRT
<213> A.fumigatus

<400> 38178

```
Gly Leu Pro Lys Gly Gly His Val Thr Ala Ala Arg Ala Gln Leu Leu
1               5                   10                  15
Ser Asp Lys Ala Glu Gln Arg Leu Cys Trp Gly Glu Val Leu Phe Arg
            20                  25                  30
Gly Lys Leu His Leu Pro Phe Ser Arg Cys Lys Cys Trp Pro Arg His
        35                  40                  45
Ser Thr Ala Met Gly Ser Asn Asp Leu Asn Gly Thr Glu Gln Asp Ser
    50                  55                  60
Leu Gln Ile Leu Ile Val Gly Ala Gly Ile Gly Gly Leu Thr Ala Ala
65                  70                  75                  80
Ile Ala Leu Arg Gln Gln Gly His Arg Val Ser Val Ser Asp Pro Ala
                85                  90                  95
Phe Ser Ser Glu Ser Val Gly Asn Ser His Ala Ser His Val His Ser
            100                 105                 110
Cys Ser Ser Glu Ala Val Leu Arg Met Lys Ser Gly Gln Gln Phe Thr
        115                 120                 125
Ser Pro Gln Met Pro Thr Val Ser Ser Tyr Gly Ser Gly Trp Met Arg
    130                 135                 140
Pro Ser Ser Glu Arg Ser Lys Gln Lys Trp Phe Val Phe Asn Ala Asn
145                 150                 155                 160
```

```
Gln Val Asn Glu Gly His Met Leu Arg Ser Asp Ser Phe Ala Ser Ala
                165                 170                 175
Gln Pro Thr Gly Lys Ser Phe Arg Leu Phe Gln
            180                 185

<210> 38179
<211> 61
<212> PRT
<213> A.fumigatus

<400> 38179
Asn Leu Ala Ala Ala Glu Ile Gly Gly Tyr Phe Glu Pro Leu Lys His
1               5                   10                  15
Asp Phe Ile Thr Lys Ser Ser Tyr Ser Cys Ala Ala Asp Ile Ala Ile
            20                  25                  30
Ala Tyr Gly Leu Glu Tyr Gly Ser His Cys Ser Val Gly Val Pro Val
        35                  40                  45
Glu Gly Val Val Leu Tyr Leu Leu Pro Ala Leu Glu Gly
    50                  55                  60

<210> 38180
<211> 306
<212> PRT
<213> A.fumigatus

<400> 38180
Phe Lys Glu His Gln Gln Lys Ile Val Asn Glu Leu Ser Gly Ile Asp
1               5                   10                  15
Gly Lys Met Phe Lys Thr Asp Thr Trp Thr Arg Pro Asn Gly Gly Gly
            20                  25                  30
Gly Ile Ser Cys Val Leu Gln Asp Gly Asn Val Phe Glu Lys Ala Gly
        35                  40                  45
Val Asn Val Ser Ile Val Tyr Gly Glu Leu Pro Arg Pro Ala Ile Glu
    50                  55                  60
Lys Met Arg Ala Asp His Lys Ser Phe Val Gly Ala Asp Val Asp Ser
65                  70                  75                  80
Leu Ser Phe Phe Ala Ala Gly Leu Ser Leu Val Leu His Pro His Asn
                85                  90                  95
Pro Met Ala Pro Thr Val His Leu Asn Tyr Arg Tyr Phe Glu Thr Ser
            100                 105                 110
Asp Pro Lys Asp Pro Ile His Gly Glu Lys Asn Trp Trp Phe Gly Gly
        115                 120                 125
Gly Thr Asp Leu Thr Pro Ser Tyr Leu Phe Pro Glu Asp Val Lys His
    130                 135                 140
Phe His Gln Thr Ile Lys Asp Ala Cys Asp Arg His Asp Ala Thr Tyr
145                 150                 155                 160
Tyr Pro Lys Phe Lys Ala Trp Cys Asp Lys Tyr Phe His Leu Pro His
                165                 170                 175
Arg Gly Glu Ala Arg Gly Val Gly Gly Ile Phe Phe Asp Asp Leu Asp
            180                 185                 190
Ala Ser Phe Leu Glu Thr Ser Ser Thr Ser Ser Gln Asn Pro Gln Glu
        195                 200                 205
Thr Ile Phe Ser Phe Val Ser Asp Ala Leu Ala Ser Phe Leu Pro Ser
    210                 215                 220
Tyr Val Pro Ile Ile Glu Lys Arg Lys Asp Met Pro Phe Thr Pro Ala
225                 230                 235                 240
```

```
Gln Lys Glu Trp Gln Gln Leu Arg Arg Gly Arg Tyr Val Glu Phe Asn
                245                 250                 255
Leu Val Tyr Asp Arg Gly Thr Ser Phe Gly Leu Arg Thr Pro Asn Ala
            260                 265                 270
Arg Val Glu Ser Ile Leu Met Ser Leu Pro Arg Thr Ala Ser Trp Ala
        275                 280                 285
Tyr Met Asp Pro Val Ser Gly Thr Arg Thr Glu Gly Pro Met Ser Glu
    290                 295                 300
Glu Glu
305
```

<210> 38181
<211> 583
<212> PRT
<213> A.fumigatus

<400> 38181

```
Ala Ser Gly Ser Arg Asn Arg Ala Asp His Gln Thr Arg Phe Asp Phe
1               5                   10                  15
Tyr Phe Lys Ser Cys Ser Ala Gln Pro Ala Thr Met Pro Pro Lys Ala
            20                  25                  30
Arg Ile Asn Ser Lys Asn Ser Val Glu Gln Glu Gly Arg Val Leu Leu
        35                  40                  45
Ala Val Ser Ala Leu Lys Asn Lys Glu Ile Leu Asn Ile Arg Glu Ala
    50                  55                  60
Ala Arg Val Tyr Asn Val Pro Tyr Thr Thr Leu Gln Arg Arg Leu Lys
65                  70                  75                  80
Gly His Thr Phe Arg Ala Glu Leu Arg Ala Asn Gly His Lys Met Thr
                85                  90                  95
Gln Asn Glu Glu Asp Ser Leu Ile Arg Trp Ile Leu Ser Met Asp Gln
            100                 105                 110
Arg Gly Ala Ala Pro Arg Pro Ser His Val Arg Glu Met Ala Asn Ile
        115                 120                 125
Leu Leu Ala Gln Arg Gly Ser Thr Pro Thr Gln Thr Val Gly Glu Lys
    130                 135                 140
Trp Val Tyr Asn Phe Ile Asn Arg His Asp Glu Ile Lys Thr Arg Phe
145                 150                 155                 160
Ser Arg Arg Tyr Asn His Gln Arg Ala Lys Cys Glu Asp Pro Lys Ile
                165                 170                 175
Ile Leu Glu Trp Phe Asn Arg Val Gln Ile Ala Ile Met Gln His Gly
            180                 185                 190
Ile Thr Leu Glu Asp Met Tyr Asn Phe Asn Glu Thr Gly Phe Ala Met
        195                 200                 205
Gly Leu Val Ala Thr Ala Lys Val Val Thr Arg Ala Glu Met Leu Ser
    210                 215                 220
Gln Pro Phe Leu Ile Gln Pro Gly Asn Arg Glu Trp Val Thr Ser Ile
225                 230                 235                 240
Glu Cys Ile Asn Ser Thr Gly Trp Val Leu Pro Pro Tyr Ile Ile Phe
                245                 250                 255
Lys Gly Lys Val His Ile Glu Gly Trp Tyr Gln Asp Thr Ala Leu Pro
            260                 265                 270
Ala Asp Trp Arg Ile Glu Val Ser Glu Asn Arg Trp Thr Thr Asp Gln
        275                 280                 285
Ile Gly Leu Arg Trp Leu Gln Lys Val Phe Ile Pro Ala Thr Thr Ser
    290                 295                 300
Arg Thr Thr Gly Arg Tyr Arg Leu Leu Ile Leu Asp Gly His Gly Ser
```

```
305                 310                 315                 320
His Leu Thr Pro Gln Phe Asp Gln Ile Cys Thr Glu Asn Asp Ile Ile
                325                 330                 335
Pro Ile Cys Met Pro Ala His Ser Ser His Leu Leu Gln Pro Leu Asp
            340                 345                 350
Val Gly Cys Phe Ser Pro Leu Lys Arg Ala Tyr Ser Arg Leu Ile Glu
        355                 360                 365
Asp Lys Met Arg Leu Gly Phe Asn His Ile Asp Lys Phe Asn Phe Leu
    370                 375                 380
Glu Ala Tyr Pro Gln Ala His Thr Ala Ile Phe Ser Ala Asp Asn Ile
385                 390                 395                 400
Lys Ser Gly Phe Ser Ala Thr Gly Leu Ile Pro Leu Asn Pro Asp Arg
                405                 410                 415
Val Leu Ser Gln Leu Asn Ile Gln Leu Arg Thr Pro Thr Pro Pro Gly
            420                 425                 430
Ser Arg Ser Thr Asn Ser Ile Pro Lys Thr Pro Tyr Asn Leu Lys Gln
        435                 440                 445
Leu Lys Lys Gln Glu Thr Thr Leu Lys Lys Leu Leu Arg Glu Arg Thr
    450                 455                 460
Tyr Ser Pro Pro Thr Pro Thr Lys Ala Val Leu Gly Gln Ile Ile Lys
465                 470                 475                 480
Gly Cys Glu Met Ala Met Asn Asn Ala Ala Leu Leu Ala Lys Glu Asn
                485                 490                 495
His Asp Leu Arg Ala Ala His Glu Lys His Leu Gln Lys Gln Lys Arg
            500                 505                 510
Ser Arg Arg Gln Ile Glu Thr Ala Val Gly Leu Ser Ile Gln Glu Gly
        515                 520                 525
Gln Glu Ile Ile Gln Arg Arg Asp Gln Ala Ala Glu Ala Ile Pro Thr
    530                 535                 540
Ile Pro Pro Glu Gln Val Val Asp Thr Glu Gln Arg Pro Gln Arg Ala
545                 550                 555                 560
Pro Pro Arg Cys Ser Asp Cys His Ile Leu Gly His Arg Arg Leu Gln
                565                 570                 575
Cys Pro Gln Arg Lys Asn Asn
            580
```

<210> 38182
<211> 88
<212> PRT
<213> A.fumigatus

<400> 38182

```
Cys Ser Thr Ala Gly Gly Ser Arg Leu Pro His Arg His Pro Tyr Ala
1               5                   10                  15
Pro Arg Lys Thr Thr Pro Gly Ala Ser Pro Gly Pro Arg Ser Cys Ala
            20                  25                  30
Gly Cys Ala Thr Arg Ser Ala Glu Thr Pro Cys Ala Pro Arg Pro Ala
        35                  40                  45
Thr Ala His Gly Thr His Ser Ala His Tyr Pro Ala Gly Leu Tyr Ser
    50                  55                  60
Ala Ala Pro Ala Ser Arg Pro Arg Pro Gly Pro Ala Thr Pro Ser Gly
65                  70                  75                  80
Thr Gln Pro Tyr Pro Thr Pro Arg
                85
```

<210> 38183

<211> 329
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (328)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38183
Pro Gly Val Ala Gly Leu Gly Val Ser Ala Asn Val Arg Ala Ala Tyr
1 5 10 15
Gly Phe Leu Ala Asp Asn Tyr Asn Asp Gly Asp Lys Ile Tyr Phe Phe
20 25 30
Gly Phe Ser Arg Gly Ala Tyr Thr Ala Arg Ala Val Ala Gly Leu Val
35 40 45
Cys Lys Trp Gly Leu Leu Thr Pro Arg Gly Met Asp Asn Phe Ala Leu
50 55 60
Val Tyr Asp Asp Phe Tyr Asn Gln Lys Ile Glu Gly Tyr Asp Ala Glu
65 70 75 80
Arg Arg Lys Arg Met Gly Phe Arg Asp Pro Leu Ser Arg Phe Thr His
85 90 95
Glu Ile Ile Gly Val Trp Asp Thr Val Gly Phe Gln Lys Ala Trp Leu
100 105 110
Gly Arg Asp Ala Gly Glu Lys Leu Glu Leu Arg Asn Thr Ile Leu Gln
115 120 125
Asp Asn Val Arg Tyr Ala Phe His Ala Leu Ser Leu Asp Glu Glu Arg
130 135 140
Thr Ala Phe Gln Pro Ile Val Trp His Ile Pro His Arg Asn Glu Gly
145 150 155 160
Gln Glu Met Leu Gln Val Trp Phe Ser Gly Val His Thr Asp Val Gly
165 170 175
Gly Gly Asp Glu Asn Pro Arg Leu Ser Asn Ile Thr Leu Ala Trp Met
180 185 190
Ile Ala Gln Cys Met Lys His Arg Gln Leu Arg Phe Asp Ile Asp Glu
195 200 205
Tyr Leu Phe Asp Asp Pro Pro Arg Pro Glu Glu Ser Glu Met Ala Pro
210 215 220
Trp Ala Thr Ser Leu Gly Lys Ile Asp His Ser Ser Ile Gly Arg Thr
225 230 235 240
Leu Gln Gly Lys Leu Gly Gly Arg Ser Thr Arg Lys Pro Met Gly Tyr
245 250 255
Asn Pro Thr Gly Gln Glu Ser Asp Ile Thr Asn Glu Phe Ile His Glu
260 265 270
Ser Val Arg Asp Arg Asn Leu Ala Lys Trp Pro Cys Ala Ala Leu Lys
275 280 285
Gly Arg Pro Asp Glu Lys Ser Trp Thr Leu Thr Ser Gly Lys Gln Ile
290 295 300
Ala Glu Leu Pro Ala Leu Gln Met Glu Lys Tyr Met Lys Gly Arg Ile
305 310 315 320
Arg Thr Val His Val Thr Glu Xaa Asp
325

<210> 38184
<211> 221
<212> PRT

<213> A.fumigatus

<400> 38184

```
Gln Ala Ala Ser Trp Thr Arg Tyr Arg Thr Leu Thr Pro Lys Ser Arg
1               5                  10                  15
Ala Ile Pro Leu Thr Pro Ser Phe Val Ser Tyr Leu Arg Ala Asn Gly
            20                  25                  30
Ile Val Leu Pro Pro Glu Thr Thr Arg Pro His Gly Asp Asp Asp Ile
        35                  40                  45
Asp Thr Phe Ser Asp Asp Gly Ala Asp Glu Glu Ser Asp Pro Ser Val
    50                  55                  60
Glu Trp Gln Glu Ile His Ser Gln Ile Lys Ser Thr Ile Ser Glu Phe
65                  70                  75                  80
Gly Gly Lys Val Thr Pro Lys Leu Asn Trp Ser Ala Pro Lys Asp Ala
                85                  90                  95
Val Trp Met Ser Ala Thr Asn Asp Leu Gln Cys Arg Thr Pro Asn Asp
            100                 105                 110
Ile Tyr Leu Leu Leu Lys Ser Ser Asp Phe Ile Thr His Asp Leu Glu
        115                 120                 125
His Pro Phe Asp Gly Cys Val Pro Asp Pro Asp Asp Ser Ser Glu Ala
    130                 135                 140
Pro Ala Thr Gln Pro Asp Ile Pro Tyr Tyr Leu Val Leu Arg Lys Tyr
145                 150                 155                 160
Val Asn Phe Asn Pro Ser Leu Glu Phe Arg Cys Phe Val Arg Asn Arg
                165                 170                 175
Val Leu Leu Cys Met Cys Gln Arg Asp Gln Asn His Phe Asp Phe Leu
            180                 185                 190
Phe Ser Leu Arg Asp Thr Leu Arg Ser Arg Ile Gln Ala Phe Phe Asp
        195                 200                 205
Glu Lys Leu Lys Asp Thr Phe Pro Asp Pro Asn Phe Val
    210                 215                 220
```

<210> 38185
<211> 698
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (59)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38185

```
Glu Ala Cys Ala Leu Arg Leu Cys Ser Ser Gly Ile Asp Ser Asn Thr
1               5                  10                  15
Glu Thr Glu Arg Arg Ala Leu Gly Ala Gln Leu Ser Leu Leu His Arg
            20                  25                  30
Cys Thr Gln Ala Ile Ala Tyr Leu Leu Arg Lys Arg Val Tyr Thr Leu
        35                  40                  45
Leu Arg Ala Lys Leu Leu Val Leu Ser Arg Xaa Leu His Lys Thr Leu
    50                  55                  60
Ser Gln Gln Lys Thr Val Pro Pro Phe Leu Asp Asn Leu Arg Asn Gln
65                  70                  75                  80
Leu Ala Ser Leu Arg Arg Thr Leu Leu Lys Arg Ile Asp Lys Arg Leu
                85                  90                  95
Ala Ser Ala Lys Ser Ile Val Asp Asp Thr Ile Glu Ser Leu Ala Ala
```

```
            100                 105                 110
Tyr Cys Leu Ala Thr Ser Ser Ser Ser Asp Asp Ala Ile Arg His Phe
        115                 120                 125
His His Val Arg Leu Asp Val Ile Gly Asn Leu Leu Gly Leu His Glu
    130                 135                 140
Ser Ser Gly Glu Asn Val Ser Asn Ala Leu Gln Leu Tyr Ile Gln Thr
145                 150                 155                 160
Leu Gln Met Ser Lys Thr Leu Leu Ser Arg Arg Leu Ser Asp Val Leu
                165                 170                 175
Asn Lys Leu Lys Ala Arg Pro Ile Leu Ala Asp Pro Asp Ile Leu Ser
            180                 185                 190
Leu Asp Glu Leu Ser Val Asp Val Leu Gly Arg Trp Val Ala Ala Asp
        195                 200                 205
Val Lys Asn Phe Thr Pro Trp Ile Lys Leu Ser Glu Leu Ser Lys Pro
    210                 215                 220
Glu Ala Glu Lys Thr Ile Lys Gln Trp Ser Arg Gln Ala Phe Asp Ala
225                 230                 235                 240
Phe Ile Lys Gly Cys Ser His Thr Leu Thr Asp Trp Cys Asn Phe Ser
                245                 250                 255
Glu Leu Leu Ala Leu Arg Arg Lys Thr Leu Glu Leu Trp Leu Ser Ser
            260                 265                 270
Trp Gly Ser Thr Pro Thr His Ser Pro Met Asn Ile Leu Gly Gly Ile
        275                 280                 285
Gln Ser Val Phe Asn Glu Arg Leu Ser Gln Ile Leu Ser His Gln Ala
    290                 295                 300
Lys Glu Leu Glu Gln Phe Gly Arg Ala Val Ser Ser Val Val Thr Asn
305                 310                 315                 320
Trp Asp Thr Asn Glu His Val Glu Ala Leu Ser Leu Trp Asp Asp Glu
                325                 330                 335
Leu Ile Asn Leu Asp Tyr Ser Asp Gly Ala Ala Val Phe Lys Gln Thr
            340                 345                 350
Ile Ala Asp Arg Leu Leu Gly Arg Asp Ala Asp Val Ser Ala Val Leu
        355                 360                 365
Ala Lys Tyr Glu Thr Trp Leu Ala Ala Ile Asp Lys Ser Lys Gln Tyr
    370                 375                 380
Ile Asn Asp Met Lys Arg Val Arg Trp Thr Asp Ile Leu Glu Glu Gly
385                 390                 395                 400
Glu Glu Glu Asp Ala Asp Met Asp Ile Thr Pro Ile Leu Asn Asp Asp
                405                 410                 415
Asp Thr Ala Leu Leu Thr Asn Ala Leu Gln Gln Ser Val Arg Glu Ser
            420                 425                 430
Phe Lys His Leu Gln Ser Ser Phe Val Glu Ile Leu Gly Ser Phe Gly
        435                 440                 445
Pro Ser His Arg Asp Lys Lys Ala Ala Phe Leu Leu Lys Leu Val Arg
    450                 455                 460
Leu Val Arg Lys Asp Leu Pro Val Asn Phe Ile Ser Ser Asp Phe Ser
465                 470                 475                 480
Leu Phe Lys Asp Ile Val Pro Gln Leu Gln Glu Ile Leu Ile Ala Gln
                485                 490                 495
Val Val Thr Leu Thr Glu Pro Ser Asn Leu Trp Pro Lys Arg Val Ser
            500                 505                 510
Gln Thr Asn Glu Ile Leu Gln Gly Arg Thr Leu Trp Glu Gly Asp Pro
        515                 520                 525
Glu Leu Pro Val Gln Pro Ser Pro Ala Ile Phe Lys Phe Leu Arg His
    530                 535                 540
Leu Val Asp Thr Met Asp Ala Tyr Gly Leu Gly Leu Trp Asp Val Ser
```

545 550 555 560
Thr Thr Gln Ala Leu Lys Glu Gly Met Arg Lys Glu Leu Trp Ala Thr
565 570 575
Ala Ala Ala Thr Leu Lys Ala Leu Glu Ser Val Asn Asp Gln Glu Gly
580 585 590
Ser Ala Val Ser Lys Glu Ala Gln Ala Val Glu Asn Gly Asp Asn Asp
595 600 605
Asn Ile Glu Gln Ser Glu Ala Asn Val Ala Ile Gly Ala Gln Asn Thr
610 615 620
Asp Asp Tyr Lys Ile Gln Leu Tyr Phe Asp Leu Leu Tyr Leu Arg Asn
625 630 635 640
Ala Leu Ser Ile Thr Lys Ser Ala Gln Asp Ser Leu Pro Asp Pro Val
645 650 655
Glu Ser Leu Phe Ser Ser Leu Asn Ser Asn Pro Thr Thr Val Lys Ile
660 665 670
Leu Glu Gln Arg Ala His Asp Tyr Trp Lys Arg Thr His Leu Leu Phe
675 680 685
Gly Leu Leu Glu Val Gly Thr Glu Gln Leu
690 695

<210> 38186
<211> 369
<212> PRT
<213> A.fumigatus

<400> 38186
Ser Cys Gly Ser Pro Asn Ser Ser Ile Met Ala Ser Pro Arg Leu Pro
1 5 10 15
Phe Leu Tyr Pro His Phe Met Arg Ala Ile Arg Thr Cys Glu Pro Ser
20 25 30
Thr Tyr Arg Thr Ile Arg Gly Arg Pro His Ser Arg Ser Phe His Ala
35 40 45
Ser Arg Tyr Arg Gly Gln Glu Ala Tyr His Arg Arg Tyr Gly Pro Ala
50 55 60
Ala Glu Ala Asn Leu Pro Pro Pro Ser Lys Pro Arg Glu Glu Leu Ser
65 70 75 80
Lys Glu Gln Val Ser Lys Thr Pro Ala Val Lys Asp Gly Asn His Lys
85 90 95
Leu Glu Gln Ser Arg Ser Gln Asp Gly Thr Lys Gly Asp Val Leu Asp
100 105 110
Ala Ser His Lys Glu Asp Asp Asp Pro Lys Ala Ala Gln Ser His Glu
115 120 125
Ser Gln Ser Pro Asn Asp Ser Gln Thr His Glu Glu Ser Glu Leu Asp
130 135 140
Leu Asp Asp Pro Asp Ile His Ala Val Ser Pro Val Ser Thr Glu Arg
145 150 155 160
Pro Ser Gln Asp Arg His Lys Pro Asn Ser Leu Ser Asp Asn Pro Leu
165 170 175
Glu Gly Val Leu His Met Pro Ser Pro Ser Ser Pro Leu Thr Pro Thr
180 185 190
Glu Thr Ser Arg Ser Asp Thr Lys Pro His Leu Ala Pro Val Pro Tyr
195 200 205
Val His His Phe Asp Thr Tyr Ser Leu Val Cys Asp Leu Ser Lys Gly
210 215 220
Gly Phe Thr Glu Ala Gln Ser Ile Thr Ile Met Lys Ala Ile Arg Thr
225 230 235 240

```
Ile Leu His Lys His Leu Asp Ile Ala Arg Gln Ser Leu Thr Ser Lys
                245                 250                 255
Ser Asp Val Glu Asn Glu Thr Tyr Leu Phe Lys Ala Ala Cys Ser Glu
            260                 265                 270
Leu Gln Tyr Ser Leu Gln Thr Ala Arg Asn Ser Glu Met Gln Arg Gln
        275                 280                 285
Arg Ala Ala Arg Ala Gln Leu Glu His Glu Ala Asp Ile Leu Ser Gln
    290                 295                 300
Arg Leu Asn Gln Glu Leu Ala Gly Leu Lys Asp Asp Ile Lys Gly Met
305                 310                 315                 320
Phe Asn Asp His Lys Met Ala Thr Arg Glu Gln Gln Arg Ser Ile Asp
                325                 330                 335
Thr Ser Val Gln Glu Leu Asn Tyr Lys Ile Thr Val Ser Leu Asn Ser
            340                 345                 350
Asp Gly Lys Ser Glu Ile Leu Gln Arg Gly Trp Lys Ile Arg Val Lys
        355                 360                 365
Val
```

<210> 38187
<211> 1086
<212> PRT
<213> A.fumigatus

<400> 38187

```
Pro Gln Pro Thr Asp Ile Ser Val Asp Ala Gln Asp Tyr Pro Glu Asn
1               5                   10                  15
His Thr Tyr Phe Val Phe Thr Thr Ser Glu Asp Pro Pro Ser Arg Val
            20                  25                  30
Val Thr Val Met Glu Asn Ala Gln Ser Arg Phe Leu Gly Val Ala Leu
        35                  40                  45
Glu Asp Phe Leu Thr Tyr Ile Asp Glu Ile Val Gln Asn Ala Leu Arg
    50                  55                  60
Leu Pro Ala Ser Glu Ala Asp Asp Asp Glu Lys Val Gly Tyr Gly Val
65                  70                  75                  80
Asp Asp Thr Asp Phe Val Asp Asp Asp Asp Asp Asn Asp Asp Asp Val
                85                  90                  95
Asp Trp Asp Met Glu Asn Glu Pro Val Phe Gly Ile Ser Arg Ala Asp
            100                 105                 110
Glu Lys His Leu Leu Lys Thr Leu Arg Arg Asp Leu Arg Ala Val Lys
        115                 120                 125
Asn Ala Gly Leu Lys Val Gly Cys Leu Gly Thr Leu Thr Gly Ala Val
    130                 135                 140
Ile Val Ser Val Ser Cys Arg Ile Gly Arg Leu Gly Val Ser Glu Glu
145                 150                 155                 160
Ala Met Glu Ala Trp Asn Val Arg Ala Ser Glu Tyr Leu Val Leu Leu
                165                 170                 175
Met Arg Tyr Pro Gly Thr Tyr Val Asp Phe Gln Glu Leu Leu Ala Leu
            180                 185                 190
Gly Lys Ala Lys Tyr Pro Ala Ile Gln Phe His Val Gly Leu Cys Asp
        195                 200                 205
Ser Tyr Lys Pro Thr Thr Glu Asp Ala Ile Arg Ala Phe Gln Gly Asn
    210                 215                 220
Leu Ser Leu Ser Glu Glu Gly Leu Thr Gly Thr Ala Arg Leu Arg Ser
225                 230                 235                 240
Leu Phe Ile Glu Gln Pro Leu Asp Ser Leu Leu Asn Glu Arg Phe Leu
```

```
                245                 250                 255
Arg Ile Met Glu Leu Arg Tyr His Leu Gly Leu Ser Trp Thr Gly Ala
            260                 265                 270
Glu Leu Tyr Ile Gln Gln Asn Gln Gly Arg Arg Pro Asp Tyr Gly Ala
        275                 280                 285
Ile Thr Asp Asp Tyr Phe Glu Pro Asp Thr Trp Ser Ala Ser Ala Pro
    290                 295                 300
Ala Leu Phe Gln Asn Asp His Ile Gly Gln Gly Leu Gly Val Asp Lys
305                 310                 315                 320
Leu Ser Leu Pro Leu Ile Ala Met Gln Phe Thr Leu Arg His Phe Val
                325                 330                 335
Lys Cys Thr Glu Phe Cys Leu Val Cys His Cys Lys Ile Leu Asp Arg
            340                 345                 350
Phe Glu Ala Ile Lys Pro Tyr Val Cys Ser Ser Ser Leu Cys Leu Phe
        355                 360                 365
Gln Tyr Met Ala Leu Gly Met Gly Pro Ser Leu Glu His Glu Ile Gln
    370                 375                 380
Phe His Pro Ser Val Val Asp Leu Leu Ile Ser Leu Thr Tyr Ala Arg
385                 390                 395                 400
Ala Val Ser Gly Lys Leu Met Asp Phe Pro Met Gly Leu Gly Leu Lys
                405                 410                 415
Val Pro Gly Val Leu Asn Met Asn Arg Leu Asp Glu Ile Glu Tyr His
            420                 425                 430
Leu Ala Lys Pro Asn Asp Gly Asn Ser Ser Pro Val Pro Thr Cys Tyr
        435                 440                 445
Ser Gly Asn Leu Val Ala Ala Thr Met Val Cys Arg Leu Asp Lys Arg
    450                 455                 460
Ala His Leu Lys Pro Gly Asp Trp Val Val Ile Phe Gln Thr Gly Thr
465                 470                 475                 480
Asp Leu Lys Asp Gly Pro Trp His Cys Arg Val Glu Ala Ile Asp Val
                485                 490                 495
Gly Thr Arg Glu Val Gln Leu Ser Ser Pro Thr Val Lys Gly Gln Gln
            500                 505                 510
Leu Ser Ala Thr Glu Leu Leu Leu Gly Pro Ser Gln Val Lys Ile Met
        515                 520                 525
Val Tyr Glu Arg Asn Phe Asp Asp Leu Asp Val Asn Glu Lys Arg Ala
    530                 535                 540
Ala Val Arg Leu Leu Leu Asp Thr Leu Pro Asn Val Asp Lys Met Lys
545                 550                 555                 560
Thr Tyr Leu Ala Asp Ser Asp Asn Lys Lys Leu Ala Gly Trp Arg Asp
                565                 570                 575
Val Ile Ser Pro Ala Ala Leu Asp Val Leu Arg Trp Val Val Ala Ser
            580                 585                 590
Asn Arg Ser Phe Ile Leu Glu Asp Asp Thr Thr His Ser Asp His Arg
        595                 600                 605
Val Ser Gly Met Gly Ser Tyr Lys Gln Phe Arg Leu Val Gln Gly Ala
    610                 615                 620
Pro Asp Lys Glu Gln Arg Phe Arg Ala Ala Val Ala Ala Asn Val Ala
625                 630                 635                 640
Met Thr Lys Thr Asp Tyr Pro Thr Ile Phe Ala Trp His Gly Ser Pro
                645                 650                 655
Val Trp Asn Trp His Ser Ile Leu Arg Glu Gly Leu His Phe Lys Glu
            660                 665                 670
Val Thr Asn Gly Arg Ala Tyr Gly Asp Gly Val Tyr Leu Ser Asn Asp
        675                 680                 685
Phe His Thr Ser Val Gly Tyr Thr Arg Glu Gly Leu Asp Tyr Ser Trp
```

```
    690                 695                 700
Pro Gln Ser Asn Leu Lys Ile Arg Met Leu Val Ser Leu Asn Glu Leu
705                 710                 715                 720
Val Asn Ala Pro Ala Gln Phe Lys His Thr Asn Pro His Tyr Val Val
                725                 730                 735
Thr Gln Leu Asp Trp Ile Gln Pro Arg Tyr Leu Phe Val Lys Cys Gln
            740                 745                 750
Gly Ala Gly Leu Gly Asp Gly Thr Ala Asn Ala Lys Pro Ser Ala Ile
        755                 760                 765
Tyr Asn Gln Asp Pro Lys Tyr Pro Ala Arg Gly Pro Ser Gly Thr Pro
    770                 775                 780
Ile Cys Ile Pro Ile Ser Ala Leu Asn Ser Gln Arg Arg His Ser Leu
785                 790                 795                 800
Gly Val Ala Asn Arg Thr Asp Ser Asp Leu Ala Ile Ser Ala Ser Pro
                805                 810                 815
Glu Arg Lys Lys Arg Lys Arg Glu Ala Asp Lys Leu Pro Thr Pro Asp
            820                 825                 830
Val Ser Thr Asn Ser Met Ile Leu Glu Glu Asp Asp Val Ala Ser Val
        835                 840                 845
Ala Thr Ala Phe Asp Asp Leu Gln Val Leu Leu Ser Glu Asp Glu Cys
    850                 855                 860
Glu Val Glu Glu Ala Pro Thr Thr Lys Pro Leu Lys Asn Gly Glu Ala
865                 870                 875                 880
Ser Asp Phe Glu Pro Gly Thr Leu Lys Lys Asp Ser Leu Pro Leu Leu
                885                 890                 895
Ala Pro Pro Gln Tyr Ala Thr Ala Pro Ala Thr Lys Val Leu Gln Gln
            900                 905                 910
His Leu Gln Ala Thr Leu Lys Val Gln Ala Arg Glu Ser Leu His Asp
        915                 920                 925
Leu Gly Trp Tyr Ile Asp Pro Glu Phe Ile Thr Thr Val Tyr Gln Trp
    930                 935                 940
Ile Val Glu Leu His Ser Phe Asp Pro Lys Leu Pro Leu Ala Lys Asp
945                 950                 955                 960
Leu Lys Gln Ala Asn Met Lys Ser Val Val Leu Glu Leu Arg Phe Pro
                965                 970                 975
Pro Ala Phe Pro Met Ser Pro Pro Phe Val Arg Val Ile Arg Pro Arg
            980                 985                 990
Phe Leu Glu Phe Ala Asn Gly Gly Gly Gly His Val Thr Ala Gly Gly
        995                 1000                1005
Ala Leu Cys Met Glu Leu Leu Thr Asn Ser Gly Trp Leu Pro Thr Ala
    1010                1015                1020
Ser Ile Glu Ser Val Leu Leu Gln Val Arg Met Ala Ile Thr Asn Pro
1025                1030                1035                1040
Glu Pro Arg Pro Ala Arg Leu Ala Leu Asn Arg Ser Arg Ser Asp Tyr
                1045                1050                1055
Ser Val Gly Glu Ala Val Glu Ala Tyr Lys Arg Ala Cys Leu Ala His
            1060                1065                1070
Gly Trp Gln Ile Pro Glu Asp Ile Gln Arg Leu Ser Trp Ala
        1075                1080                1085
```

<210> 38188
<211> 93
<212> PRT
<213> A.fumigatus

<400> 38188

```
Met Ser Val Asn Leu Met Gln Thr Ser His Asp Asn Cys Ile Ile Ala
1               5                  10                  15
Trp Ile Phe Ser Val Cys Leu Thr Phe Ala Tyr Pro Leu Asn Asp Ala
            20                  25                  30
Gly Arg Leu Pro Leu Thr Ser Thr Asp Val Ile Ser Pro Pro Arg Ser
        35                  40                  45
His Leu Gly Phe Phe Gly Ser Pro Ser Phe Gln Phe Phe Thr Tyr Lys
    50                  55                  60
Thr Thr Phe Asn Ser Ile Ile Val Asp Thr Ser Asn Asn Phe Tyr Leu
65                  70                  75                  80
Thr Ile Lys Val Arg Arg Arg Arg His Leu Asp Asp Gly
                85                  90
```

<210> 38189
<211> 483
<212> PRT
<213> A.fumigatus

<400> 38189

```
Lys Phe Val Val Asp Gly Ile Trp Thr Thr Asp Ser Ser Ala Ala Glu
1               5                  10                  15
Glu Asp Asp Gly Asn Gly Asn Ile Asn Asn Val Leu Tyr Pro Arg Gln
            20                  25                  30
Leu Lys Gln Ala Ser Asn Pro Pro Gln Thr Asn Gly Thr Thr Met Ala
        35                  40                  45
Thr Val Thr Pro Glu Val Thr Glu Ala Ala Ile Ala Ala Gly Ile His
    50                  55                  60
Lys Asp Thr Glu Lys Arg Ala Asn Glu Ala Ile Ile Ser Ser Ala Ala
65                  70                  75                  80
Pro Gly Ser Thr Thr Ala Glu Leu Ala Lys Ala Val Pro Leu Glu Gln
                85                  90                  95
Arg Ser Asn Val Pro Gly Thr Phe Pro Glu Thr Pro Gly Gln Glu Ala
            100                 105                 110
Gly Thr Phe Ser Val Asn Pro Ile Pro Ala Ser Gly Thr Ser Gly Asn
        115                 120                 125
Pro Ile Ser Leu Lys Pro Gly Glu Lys Val Pro Asp Pro Ser Thr Phe
    130                 135                 140
Thr Ser Asn Thr Val Gln Ser Thr Ala Arg Thr Asp Pro Thr Gly Tyr
145                 150                 155                 160
Thr Gln Asp Pro Ser Ala Ala Thr Val Leu Glu Pro Val Gly Glu Pro
                165                 170                 175
Ser Gln Arg Phe Arg Asp Pro Gly Val Thr Ile Gln Ser Ala Ala Pro
            180                 185                 190
Asn Ser Thr Thr Ala Ala Leu Ala Ala Ser Val Pro Leu Glu Ser Gln
        195                 200                 205
Arg Pro His Gly Ala Ala Glu Gly Val Ala Asp Glu Val Pro Lys Val
    210                 215                 220
Val Arg Glu Ser Ile Ala Glu Ser His Arg Asp Pro Glu Ala Ala Ala
225                 230                 235                 240
Asn Lys Glu Ala Val Glu Glu Lys Lys Glu Met Glu Asn Glu Leu Gln
                245                 250                 255
Lys Arg Val Thr Arg Asp Glu Ser Cys Gly Thr Pro Ala Pro Ser Ile
            260                 265                 270
Ser Ala Val Ile Gly Ser Thr Gln Thr Ser Gly Gly Ala Pro Ala Asp
        275                 280                 285
Glu Val Pro Glu Pro Val Lys His Ser Ile Ala Glu Ala His Lys Asp
```

```
    290                 295                 300
Pro Glu Ala Ala Ala Asn Pro Glu Ala Val Glu Glu Lys Lys Glu Met
305                 310                 315                 320
Glu Asp Glu Leu Gln Lys Thr Val Pro Arg Glu Glu His Ala Gly Ala
                325                 330                 335
Pro Ala Pro Thr Ala Thr Ala Ala Thr Thr Glu Ser Ala Pro Arg Ala
            340                 345                 350
Thr Gly Val Glu Pro Gln Ser Gln Pro Leu Ser Pro Gly Ala Gly Ser
        355                 360                 365
Pro Gln Gly Pro Thr Val Thr Thr Gly Val Ala Ser Ala Lys Ala Pro
    370                 375                 380
Glu Val Ser Gly Pro Gly Ala Gly Ala Arg Thr Gly Gln Ser Glu Gly
385                 390                 395                 400
Ser Thr Thr Val Met Pro Ser Ser Ile Pro Asp Lys Ala Val Gly Pro
                405                 410                 415
Ser Glu Arg Gln Thr Glu Gly Thr Pro Ala Pro Ser Gln Pro Thr Ala
            420                 425                 430
Ala Pro Ala Thr Thr Ser Pro Gln Val Gln Thr Ala Gly Thr Thr Asn
        435                 440                 445
Gly Pro Ser Lys Pro Ala Gly Gln Arg Asn Gly Leu Arg Asn Glu Met
    450                 455                 460
Lys Glu Glu Lys Lys Lys Lys Lys Ser Phe Trp Ser Arg Leu Lys Asp
465                 470                 475                 480
Lys Leu Lys
```

<210> 38190
<211> 791
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (764)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38190

```
Asp Asp Met Ala Ser Pro Glu Ser Ser Leu Leu Ser Ala Ser Ala Val
1               5                   10                  15
Ser His Arg Lys Ser Gly Asp Gln Tyr Ser Phe Arg Ser Gly Thr Ser
            20                  25                  30
Lys Ser Ser Leu Asn Asn Pro Lys Leu Leu Glu Thr Val Glu Asp Ala
        35                  40                  45
Ile Arg Arg Leu Ile Leu Pro Glu Leu Lys Glu Leu Lys Lys Asp Gln
    50                  55                  60
Lys Val Ile Ser Asn Thr Ser Lys Phe Glu Arg Asp Leu Asn Ala Ser
65                  70                  75                  80
His Thr Ser Ser Ala Ser Ser Arg Ser Arg Asp Glu Leu Gly Arg Arg
                85                  90                  95
Leu Ser Lys His Ala Ser Ala Pro Asp Val Met Lys Pro Lys Val Val
            100                 105                 110
Leu Asn Lys Asn Ser Lys Asp Glu Gly Val Ile Leu Ser Gly Glu Pro
        115                 120                 125
Val Pro Ala Thr Lys Glu Arg Arg Thr Gly Lys Asp Ser Glu Lys Lys
    130                 135                 140
Leu Glu Pro Thr Tyr Ala Ile Trp Gly Asn Arg Pro Glu Leu Thr Glu
```

```
145                 150                 155                 160
Gln Glu Lys Leu Arg Arg Gln Arg Ser Lys Gly Leu Arg His Ala Glu
                165                 170                 175
Lys Ala Ala Ile Val Gly Thr Ala Leu Thr Ala Ala Ala Leu Arg Arg
            180                 185                 190
His Glu Ser Gln Thr Ser Ile Asp Lys Asp Glu Ser Arg Arg Gly Asp
        195                 200                 205
Asp Arg Asp Arg Ala Glu Gly Ile Asn Glu Thr Glu Leu Val Phe Gln
    210                 215                 220
Arg His Asn Val Ala Pro Met Pro Leu Arg Ser Ala Val Glu Thr Glu
225                 230                 235                 240
Leu Thr Arg Asp Ser Leu Leu Ser His Arg Ser Ala Glu Thr Glu Thr
                245                 250                 255
Pro Arg Lys Glu Ser Lys Val Gln Gly Val Ser Arg Ser Ser Pro Leu
            260                 265                 270
Lys Val Asn Ser Pro Val Ser Arg Thr Pro Asn Arg Thr Pro Leu Gly
        275                 280                 285
Ser Gln His Glu Leu Ala Leu Lys His Ser Asn Leu Ser His His Asp
    290                 295                 300
Leu Ser Leu His Ser Thr Ser Asn Pro Ser Leu His Asp Arg Asp His
305                 310                 315                 320
Ser Pro Val Ser Glu Ala Ala Ala Gly Ala Ile Ala Ala Ala Ala Ala
                325                 330                 335
Ala Asn Leu Leu Asp Val His Ser Glu Arg Arg Asp Ser Gly Phe Asn
            340                 345                 350
Asn Asp Ser Arg Arg Arg Thr Leu Ser Pro Ile Gln Ser Val Ala Ser
        355                 360                 365
Tyr Arg Ser Asp Ser Gln Ser Gln Gln Tyr Glu His Glu Gln His Glu
    370                 375                 380
Tyr Ser Glu Gly Glu Arg Glu Leu Glu Pro Arg Leu Ser Ile Glu Ser
385                 390                 395                 400
Leu Ser Ser Ala Pro Ser Thr Ser Leu Ala Arg Ser Thr Arg Pro Asp
                405                 410                 415
Gly Leu Thr Ser His Ser Glu Ile Leu Lys His Arg Asp Val Ile Asp
            420                 425                 430
His Glu Leu Gly Tyr Glu Glu Thr Pro Arg Pro Thr Pro Gln Asn Glu
        435                 440                 445
Ser Trp His Glu Gly Ser Glu Leu Asp Gly Pro Asn Asn Arg His Ser
    450                 455                 460
Thr Ala Asp Thr Ile Asp Ser Glu Gly Lys Arg Leu Thr Asn Tyr Thr
465                 470                 475                 480
Asp Glu Ser Glu Val Ser Tyr Met Lys Lys Ile Gly Gln Gly Gln Arg
                485                 490                 495
Val Ala Gln Gly Ile Gly Ala Asn Pro Gln Tyr Val Gln Pro Ile Ala
            500                 505                 510
Val Glu Ser Ala Val Ala Ser Leu Leu Asp Pro Ser Ile Leu Asp Thr
        515                 520                 525
Lys Ser Asn Gln Ser Gly Gly Asn Leu Ser Gln Gln Asn Leu Pro Arg
    530                 535                 540
Ile Gln Asp Asp Arg Ser Pro Glu Ser His Gln Gln Thr Ala Asn Thr
545                 550                 555                 560
Ser Arg Gln Gly Ser Pro Leu Lys Gln Arg Gln Asp Ala Ser Ser Pro
                565                 570                 575
Asp Glu Thr Ser Phe Pro Arg Arg Met Gly Ala Thr Ser Pro Pro Gln
            580                 585                 590
Ser Val Ala Gln Ser Leu Glu Asp Pro Thr Gln Ser Pro Gln Ile Tyr
```

595 600 605
Ala Asp Glu His Arg Asn Thr Gly Ser Pro Ile Gly Asp Asp Arg Asp
610 615 620
Val Ser Pro Asp Ser Glu Ser Glu Ile Asn Thr Asn Pro Ser Ile Ile
625 630 635 640
Gln Gly Pro Ile Gly Gly Val Ala Gln Asp Ser Asn Trp Thr Tyr His
645 650 655
Gln Thr Pro Pro Lys Gly Asp Gln Ser Pro His Tyr His Glu His Ala
660 665 670
Asp Ala Gly Ala Gly Arg Ala Gly Leu Gly Val Glu Ser Met Asp His
675 680 685
His Gly Tyr Asn Lys Asp Tyr Tyr Ala Ala Asp Asp Tyr Gly Pro Asp
690 695 700
Ser Tyr Phe Asp Gln Pro Tyr Ala Gly Gly His Met Phe Gly Ser Pro
705 710 715 720
Leu Gly Ala Lys Asp Glu Gly Tyr Val Ser Ala Ala Asn Pro Leu Ser
725 730 735
Pro Gly Ala Asp Thr Pro Glu Pro Leu Ser Lys Gly Phe Gly Gly Ile
740 745 750
Asp Ala Asn Gly Met Ser Leu Phe Asp Thr Pro Xaa Glu Ala Asp Asp
755 760 765
Pro Thr Gly Ala Phe Ser Pro Glu Glu Pro Lys Trp Leu Phe Thr Arg
770 775 780
His Trp Phe Ser Ser Ile Arg
785 790

<210> 38191
<211> 479
<212> PRT
<213> A.fumigatus

<400> 38191
Leu Thr Val Arg Asp Ala Gln Arg Asn Ala Arg Asp Thr Glu Ile Leu
1 5 10 15
Val Thr Leu Val Arg Ser Ala Ala Glu Met Arg Asn Ser Leu Glu Glu
20 25 30
Met Lys Lys Phe Ile Ala Gln Arg Asp Gly Met Ile Met Glu Ala Ser
35 40 45
Asp Lys Gln His Glu Arg Val Tyr Lys Ala Ile Gly Gly Pro Arg Pro
50 55 60
Leu Pro Ala Ser Gly Ser Arg Asn Phe Arg Gln Ala Ala Glu Asp Met
65 70 75 80
Glu Asp Met Arg Ser Lys Arg Lys Ser Ile Phe Lys Arg Ala Leu Lys
85 90 95
Gly Leu Ser Leu Lys Ser Ser Asn Asp Leu Thr Lys Ile Glu Glu Met
100 105 110
Leu Glu Gln Leu Leu Glu Glu Val Glu Ala Leu Arg Ala Gly Gln Asp
115 120 125
Asp Arg Phe Ala Arg Ser Val Asn Arg Thr Ala Ser Val Asp Pro Glu
130 135 140
Gly Tyr Glu Pro Glu Gly Leu Ala Gly Ser Gly Ser Pro Gly Thr Gly
145 150 155 160
Tyr Leu Ser Thr Ser Ser Arg Pro Leu Gln Glu Ser Arg Asn Asn Glu
165 170 175
Gln Lys Arg Glu Leu Glu Asn Arg Val Ser Thr Val Pro Glu Gly Asp
180 185 190

```
Glu Asp Asp Asp Tyr Asp Asp Arg Gly Gln Phe Leu Ser Pro Asn Val
        195                 200                 205
Pro Ser Gln Glu Asn Ala Asp Gly His Arg Glu Arg Ala Glu Ser Ala
    210                 215                 220
Pro Leu Ser Thr Pro Pro Arg Val Pro Val Ala Ser Gly Ala Leu Ser
225                 230                 235                 240
Asn Glu Thr Ser Pro Lys Thr Glu Lys Ala Arg Lys His Lys Ser Ser
                245                 250                 255
Ser Ser Ser Phe Phe Pro Lys Ile Ser Arg Trp Ser Lys Thr Thr Ala
            260                 265                 270
Ser Ser Met Gly Asp Asn Ile Arg Asn Ser Leu Gln Pro Gly Arg Lys
        275                 280                 285
Glu Arg Pro Tyr Leu Asp Ala Ser Arg Ser Gly Ser Asp Ile Asn Gly
    290                 295                 300
Pro Tyr Lys Ser Ala Asp Trp Tyr Asp Pro Glu Gly Asp Asp Arg Leu
305                 310                 315                 320
Arg Ser Asn Tyr Thr Leu Asn Asp Gln Gln Gln Glu Asn Arg Pro Pro
                325                 330                 335
Ser Pro Leu Val Pro Ser Gln Val Ser Glu Ala Pro Lys Tyr Arg Ala
            340                 345                 350
His Arg Asp Ser Leu Asp Leu Gln His Pro Gln Pro Arg Gln Gly Pro
        355                 360                 365
Thr Gly Arg Tyr Gln Ser Gln Leu Glu Thr Gln Ala Gln Ile Tyr Gly
    370                 375                 380
Met Pro Met Thr Gly Ala Thr Ser Asp Gln Trp Gly Ser Asn Pro Ser
385                 390                 395                 400
Val Ser Ala Thr Asn Pro Asn Gln Asn Arg Tyr Ser Gly Gly Ala Ser
                405                 410                 415
Arg Leu Ser Pro Ile Ser Asp Ala Gly Tyr Ser Gln Thr Ser Ser Arg
            420                 425                 430
Ala Gly Arg Gln Gly Pro Pro Arg Pro Pro Lys Ile Met Asp Asp Gly
        435                 440                 445
Pro Leu Val Pro Glu Arg Pro Pro Lys Ile Lys Glu Glu Arg Ser Tyr
    450                 455                 460
Ala Glu Arg Val Ala Ser Gln Val Ser Pro Leu Cys Ser Leu His
465                 470                 475
```

<210> 38192
<211> 122
<212> PRT
<213> A.fumigatus

<400> 38192

```
Gln Gln Gly Val Ala Gly Gln Phe Arg Leu Asp Gly Thr Ala Gln Arg
1               5                   10                  15
His Gly Arg His Val Met Ser Leu Glu Asn Glu Leu Arg Leu Ile Asp
            20                  25                  30
Pro Leu Gly Ala Val Ser Val Val Thr Ser Ser Ala Phe Ile Leu Ile
        35                  40                  45
Asp Ala Gly Leu Arg Phe Met Thr Ser Gln Ser Gly Arg Gly Gln Cys
    50                  55                  60
Ser Ala Tyr Asn Cys Gly Leu Phe Arg Met Ala Gln Ser Phe Ala Ser
65                  70                  75                  80
Leu Ser Pro Gln Leu Phe Leu Phe Gly Gln Leu Gly Ala Ile Ala Pro
                85                  90                  95
Asp Cys Ile Gly Arg Phe Glu Phe Leu Leu Ala Ile Leu Ala Cys Ala
```

```
            100                 105                 110
Ala Leu Leu Arg Cys Arg His Arg Leu Ser
        115                 120

<210> 38193
<211> 65
<212> PRT
<213> A.fumigatus

<400> 38193
Lys Tyr Ala Asp Tyr Asn Asn Ser Gln Gly Gly Tyr Gly Gln Tyr Asn
1               5                   10                  15
Pro Tyr Gly Gly Gln Gln Gln Asn Asn Ala Tyr Gly Ser Gln Gln Gln
            20                  25                  30
Gly Tyr Gly Gln Ala Pro Tyr Gln Gln Ala Asn Asn Met Glu Gln Gly
        35                  40                  45
Asn Gly Ser Tyr Gly Arg Ser Pro His Ile Leu Ser Ser Gly Val Tyr
    50                  55                  60
Leu
65

<210> 38194
<211> 185
<212> PRT
<213> A.fumigatus

<400> 38194
Ala Leu Glu Tyr Ile Ser Asn Ala Leu Pro Leu Thr Glu Met Ser Ala
1               5                   10                  15
Met Gly Gly Tyr Gly Gly Gln Gln Gln Gln Pro Ser Gly Pro Thr Ala
            20                  25                  30
Leu Leu Asn Lys Cys Lys Glu Ile Asn Asp Gly Ile Ala Asp Leu Arg
        35                  40                  45
Ala Lys Arg Glu Gly Gln Leu Ala Ala Ala Gln Asn Ala Leu Leu Asp
    50                  55                  60
Ser Ser Thr Gly Lys Glu Asp Gln Ala Ser Arg Gln Thr Leu Asp Tyr
65                  70                  75                  80
Ile Glu Asp Glu Ile Asn Asn Gly Phe Arg Tyr Leu Arg Asp Leu Leu
                85                  90                  95
Lys Lys Ile Lys Gln Thr Pro Gly Ser Gly Asp Thr Arg Val Gln Thr
            100                 105                 110
Gln Ile Asp Val Thr Ser Arg Asn Leu Arg Arg Glu Ile Glu Gln Tyr
        115                 120                 125
Gln Arg Ala Gln Ser Asp Phe Gln Lys Arg Leu Arg Glu Gln Val Arg
    130                 135                 140
Arg Arg Tyr Glu Ile Ala Asn Pro Glu Ala Ser Pro Glu Glu Ile Glu
145                 150                 155                 160
Gln Gly Val Asp Asn Val Leu Met Gly Gln Glu Gln Ser Phe Gln Val
                165                 170                 175
Arg Glu His Gly Ser Ser Pro Ile Ser
            180                 185

<210> 38195
<211> 201
<212> PRT
<213> A.fumigatus
```

<400> 38195
Val Thr Gly Ser Arg Thr Arg Gln Ala Asn Asp Ala Arg Gln Ala Ala
1 5 10 15
Leu Glu Arg Ser Ala Ala Ile Arg Lys Ile Glu Gln Asp Met Ile Glu
20 25 30
Leu Gly Arg Leu Tyr Gln Glu Val Ala Glu Leu Val His Gln Gln Asp
35 40 45
Ala Ala Val Glu Gln Ile Asn Gln Gly Ala Glu Asp Val Val Asp Asn
50 55 60
Val Gln Asn Ala Asn Thr Gln Ile Asp His Ala Ile Lys Ser Ala Arg
65 70 75 80
Asn Ala Arg Lys Trp Lys Trp Tyr Ala Leu Leu Ile Val Ser Thr Cys
85 90 95
His Leu Trp Pro Gln Cys Lys Ser Ile Asn Leu Thr Asp Cys Asp Phe
100 105 110
Ser Ser Asp His Cys His Arg Cys Arg Cys Arg Cys Trp Cys His Pro
115 120 125
Gly Gln Gln Ser Val Lys Trp Pro Ser Leu Lys Asp Ala Cys Ile Lys
130 135 140
Arg Leu Ala Glu Tyr Val Cys Arg Leu Leu Met Ile Tyr Ser Ala Leu
145 150 155 160
Gly Asn Leu Arg Arg Tyr Val Arg Leu Leu Asp Ile Pro Val Ser Arg
165 170 175
Pro Leu His Tyr Pro Phe Val Ile His Gly Pro Arg Asn Ala Glu Ala
180 185 190
Lys Val Asp Lys Phe Gly Glu Ala Ser
195 200

<210> 38196
<211> 123
<212> PRT
<213> A.fumigatus

<400> 38196
Leu Ala Val Thr Leu Leu Ala Ile Leu Ala Ser Asn Ala Ile Ala Leu
1 5 10 15
Pro Leu Ser Pro Ala Phe Pro Val Gly Glu Leu Lys Tyr Ile Leu Asp
20 25 30
Asn Ser Gln Ala Lys Val Leu Val Ala Thr Gln Lys Tyr Arg Asp Lys
35 40 45
Ala His Asp Leu Leu Lys Ala Gly Leu Asn Thr Glu Pro Val Leu Asp
50 55 60
Ile Lys Glu Lys Ile Gln Val Gly Ala Thr Ser Ser His Pro Val Ser
65 70 75 80
Leu Glu Asp Leu Asn Gly Glu Arg Ser Leu Gly Gly Met Met Leu Tyr
85 90 95
Thr Ser Gly Thr Thr Asn Arg Pro Val Gly Ile Glu Phe Ser Val Asn
100 105 110
Ser Val Glu Thr Pro Thr Gly Trp Lys Asn Phe
115 120

<210> 38197
<211> 289
<212> PRT
<213> A.fumigatus

<400> 38197
Lys Gly Val Leu Ile Pro Gln Ser Ala Leu Thr Ala Gln Ala Ser Ser
1 5 10 15
Leu Leu Glu Ala Trp Lys Tyr Thr Pro Glu Asp Arg Leu Leu His Leu
20 25 30
Leu Pro Leu His His Ile His Gly Thr Val Asn Ala Ile Val Thr Pro
35 40 45
Ile Leu Ala Gly Ser Cys Ile Glu Phe Met Phe Pro Phe Asn Thr Asp
50 55 60
Ala Val Trp Asn Arg Leu Ala Glu Pro Phe Leu Pro Asn Ser Thr Asn
65 70 75 80
Lys Ser Lys Ile Thr Phe Leu Thr Ala Val Pro Thr Ile Tyr Asn Arg
85 90 95
Leu Leu Ser Ser Phe Pro Ser Leu Arg Pro Glu Ile Gln Glu Ala Ala
100 105 110
Lys Lys Gly Ile Ser Pro Glu Asn Leu Arg Leu Asn Ile Ser Gly Ser
115 120 125
Ala Ala Leu Pro Thr Pro Thr Lys Gln Ala Trp Gln Asp Leu Ser Asn
130 135 140
Gly Asn Val Leu Leu Glu Arg Phe Gly Met Thr Glu Val Gly Met Ala
145 150 155 160
Ile Ser Cys Gly Leu Asp Phe Ala Asp Arg Val Asp Gly Ser Val Gly
165 170 175
Trp Pro Leu Pro Ser Val Glu Ala Arg Leu Val Asp Thr Glu Thr Asn
180 185 190
Glu Val Ile Lys Pro Gly Glu Glu Leu Asp Ala Asn Gly Arg Glu Arg
195 200 205
Glu Gly Glu Ile Gln Leu Arg Gly Pro Thr Ile Phe Arg Glu Tyr Trp
210 215 220
Val Asn Glu Lys Ala Thr Lys Gly Ala Phe Val Asp Ser Glu Asp Gly
225 230 235 240
Lys Gly Lys Trp Phe Lys Thr Gly Asp Val Ala Thr Arg Arg Val Val
245 250 255
Arg Asn Ala Gly Lys Gly Thr Ser Gly Lys Trp Ala Lys Gly Pro Ser
260 265 270
Ile Ser Ser Arg Val Leu His His Ala Ala Ala Arg Thr Thr Leu Met
275 280 285
Tyr

<210> 38198
<211> 109
<212> PRT
<213> A.fumigatus

<400> 38198
Val Phe Ile Glu Ala His Ser Phe Phe Val Leu Asn Ser Thr Asn Arg
1 5 10 15
Asp Asp Arg Phe Leu Arg Asp Ala Tyr Ala Asp Val Asp Lys His Tyr
20 25 30
Pro Gly Asp Thr Trp Asn Glu Pro Gly Asn Asn Val Tyr Gly Cys Ile
35 40 45
Lys Gln Leu Phe Leu Leu Lys Lys Gln Asn Arg Lys Leu Lys Val Leu
50 55 60
Leu Ser Ile Gly Gly Trp Thr Leu Ser Ala Asn Leu Thr Gln Gly Thr

```
65                  70                  75                  80
Ser Thr Asp Ala Gly Arg Asn Thr Phe Ala Gln Ser Ala Ala Lys Leu
                85                  90                  95
Leu Leu Asp Tyr Gly Phe Asp Gly Arg Phe Ser Leu Ser
            100                 105
```

<210> 38199
<211> 223
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (110)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38199

```
His Ser Asn Leu Gly Pro Asn Asn Tyr Ser Lys Leu Lys Leu Arg Glu
1               5                   10                  15
Met Thr Pro Phe Leu Asp Phe Tyr Asn Leu Met Ala Tyr Asp Tyr Ala
            20                  25                  30
Gly Ser Trp Asp Ser Val Ala Gly His Gln Ala Asn Leu Phe Pro Ser
        35                  40                  45
Asn Gly Asn Pro Ser Ser Thr Pro Phe Ser Thr Ile Gln Ala Ile Asn
    50                  55                  60
Tyr Tyr Thr Gln Val Gly Gly Val Pro Pro Ser Lys Ile Ile Leu Gly
65                  70                  75                  80
Met Pro Leu Tyr Gly Arg Asp Phe Leu Ser Thr Asn Gly Pro Gly Thr
                85                  90                  95
Leu Tyr Ser Gly Asn Gly Ala Gly Ser Trp Glu His Gly Xaa Trp Asp
            100                 105                 110
Tyr Lys Ala Leu Pro Gln Pro Gly Ala Thr Glu Val Phe Asp Gln Gln
        115                 120                 125
Ala Gly Ala Phe Trp Ser Tyr Asp Ala Gly Ala Arg Thr Met Val Ser
    130                 135                 140
Tyr Asp Thr Val Thr Ala Ala Glu Met Lys Val Asn Phe Ile Lys Glu
145                 150                 155                 160
Gln Gly Leu Gly Gly Gly Met Trp Trp Glu Ala Ser Gly Asp Lys Gly
                165                 170                 175
Gly Lys Ala Ala Asn Lys Ala Asp Gly Ser Leu Ile Gly Thr Phe Val
            180                 185                 190
Glu Gly Val Gly Gly Val Asn Ala Leu Glu Gln Ser Gln Asn Asn Leu
        195                 200                 205
Asp Tyr His Glu Ser Gln Phe Asp Asn Leu Cys Ala Gly Phe Pro
    210                 215                 220
```

<210> 38200
<211> 70
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (7)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38200
His Asp Arg Thr Thr Arg Xaa Ile Leu Pro Ala Pro Cys Glu Asp Leu
1 5 10 15
Arg Gly Gly Ala Lys Lys Arg Lys Lys Lys Val Tyr Thr Thr Pro Lys
20 25 30
Lys Ile Lys His Lys Arg Lys Lys Thr Lys Leu Gly Gly Leu Lys Tyr
35 40 45
Tyr Lys Val Asp Gly Asp Gly Lys Ile Glu Arg Leu Arg Arg Glu Cys
50 55 60
Pro Ser Pro Glu Val Cys
65 70

<210> 38201
<211> 206
<212> PRT
<213> A.fumigatus

<400> 38201
Gln Asn Gly Val His Val Phe Ser Val Gln Leu Arg Leu Ala Pro Glu
1 5 10 15
Asn Pro His Pro Thr Pro Val Glu Asp Cys Tyr Ala Gly Leu Thr Trp
20 25 30
Leu Tyr Glu His Ala Glu Glu Phe Ser Val Asp Arg Ser Arg Ile Ala
35 40 45
Thr Met Gly Glu Ser Ala Gly Gly Leu Leu Ala Ala Gly Ile Thr Leu
50 55 60
Met Ala Arg Asp Arg Gly Leu Ala Pro Pro Ile Ala Lys Gln Ile Leu
65 70 75 80
Ile Tyr Pro Met Leu Asp Asp Arg Asn Thr Val Pro Asn Pro Glu Leu
85 90 95
Glu Asn Phe Ala Leu Trp Asp Cys Asn Asp Asn Ile Thr Ala Trp Thr
100 105 110
Ala Leu Leu Gly Thr Asp Ile Gly Lys Asp Asn Val Ser Gln Tyr Ala
115 120 125
Ala Pro Ala Arg Ala Val Ser Val Gln Gly Leu Pro Pro Thr Tyr Ile
130 135 140
Asp Val Gly Glu Leu Asp Ile Phe Arg Asp Glu Asp Ile Ala Tyr Ala
145 150 155 160
Ala Arg Ile Ala Ser Ala Asn Ile Ser Val Glu Leu His Val Tyr Pro
165 170 175
Gly Leu Pro His Ala Phe Glu Val Tyr Ala Pro His Ile Glu Ala Thr
180 185 190
Lys Arg Ala Thr Ala Asp Arg Phe Arg Ala Val Gln Thr Leu
195 200 205

<210> 38202
<211> 97
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (14),(35)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38202

```
Asp Phe Phe Pro Ser Lys Phe Phe Tyr Pro Leu Lys Pro Xaa Ser Val
1               5                  10                  15
Ala Ile Cys Gly Leu Ile Ser Val Ala Ser Thr Arg His Ile Gln Gln
            20                  25                  30
Phe Ala Xaa His Ser Ala Ile Tyr Tyr Thr Leu Thr Thr Ser Thr Ser
        35                  40                  45
Trp His Phe Trp His Asn Tyr Phe Pro Ile Ala Glu Asn Lys Gly Thr
    50                  55                  60
Lys Thr Ile Leu Gly Gly His Tyr Asn Asp Ile Tyr Asn Thr Ile Pro
65                  70                  75                  80
Phe Leu Asn Arg Ala His Phe Arg Tyr His Arg Ala Ser Ala Ser Ser
                85                  90                  95
Phe
```

<210> 38203
<211> 75
<212> PRT
<213> A.fumigatus

<400> 38203

```
Gly Thr Gly Met Ile Met Pro Arg Asn Phe Asn Leu Thr Ser Asp Leu
1               5                  10                  15
Thr Trp Ser Asn Ile Gly Ser Gly Arg Cys Leu Leu Glu Cys Arg Gln
            20                  25                  30
Ser Pro Gly Pro Ser Ser Tyr Ser Thr Tyr Leu Arg Cys Ser Ala Leu
        35                  40                  45
Val Thr Lys Ala Gln His Leu Asn Gln Ala His Asn Ala Phe Gly Ser
    50                  55                  60
Ser Thr Met Met Ile Leu Thr Leu Lys Ile Ile
65                  70                  75
```

<210> 38204
<211> 177
<212> PRT
<213> A.fumigatus

<400> 38204

```
Asp Lys Tyr Met Arg Ser Val Ala Asp Phe Leu Asn Leu Gln Glu Arg
1               5                  10                  15
Thr Lys Arg Asp Met Glu Asn Ala Arg Asn Phe Ala Ile Gln Arg Phe
            20                  25                  30
Ala Val Asp Leu Leu Glu Ser Ile Asp Asn Phe Asp Arg Ala Leu Leu
        35                  40                  45
Ala Val Pro Ala Glu Lys Leu Lys Ala Glu Val Thr Glu Ser Asn Lys
    50                  55                  60
Glu Leu Met Asp Leu Val Ser Gly Leu Arg Met Thr Gln Asn Ile Leu
65                  70                  75                  80
Leu Asn Thr Leu Lys Lys His Gly Leu Glu Arg Phe Asp Pro Ser Glu
                85                  90                  95
Pro Ala Glu Asp Gly Lys Pro Gln Lys Phe Asp Pro Asn Val His Glu
            100                 105                 110
Ala Thr Phe Met Thr Lys Val Glu Gly Lys Glu Asp Gly Asp Ile Ile
        115                 120                 125
His Thr Gln Thr Thr Gly Phe Lys Leu Asn Gly Arg Val Leu Arg Val
    130                 135                 140
```

```
Ser His Ser Ser Leu Ser Ser Phe Phe Ser Gln Gly Ser Asn Pro Trp
145                 150                 155                 160
Phe His Arg Leu Pro Arg Ser Ala Leu Ser Arg Thr Thr Arg Arg Arg
                165                 170                 175
Thr
```

<210> 38205
<211> 199
<212> PRT
<213> A.fumigatus

<400> 38205

```
Lys Leu His Ile Pro Phe Ser Ser Leu Lys Tyr Pro Ser Tyr Ile Met
1               5                   10                  15
Phe Gln Arg Thr Leu Leu Arg Gln Ala Gln Ala Ala Lys Ser Ile Val
            20                  25                  30
Ser Leu Arg Ala Thr Ser Thr Thr Pro Ser Val Ile Arg Arg Thr Ser
        35                  40                  45
Gln Leu Gln Ser Gln Leu Leu Ser Val Arg Pro Val Val Arg Gln Pro
    50                  55                  60
Thr Tyr Arg Phe Tyr Ser Thr Glu Asn Gln Ala Gln Asn Ala Glu Lys
65                  70                  75                  80
Ala Glu Ala Lys Glu Asn Glu Ala Ala Glu Glu Ser Pro Glu Glu Ser
                85                  90                  95
Leu Arg Lys Glu Leu Glu Ala Lys Glu Lys Glu Ile Val Asp Leu Lys
            100                 105                 110
Val Leu Ile Thr Leu Cys Gly Trp Trp Asn Ile His Cys Trp Asp Asp
        115                 120                 125
Arg Gln Pro Met Phe Ala Gly Ala Asp Phe Val His Arg Thr Ser Thr
    130                 135                 140
Cys Val Pro Leu Gln Thr Ser Ser Thr Cys Lys Asn Ala Pro Ser Val
145                 150                 155                 160
Thr Trp Arg Met Pro Gly Ile Ser Pro Phe Ser Gly Ser Pro Ser Thr
                165                 170                 175
Cys Ser Arg Ala Leu Thr Thr Ser Thr Gly Leu Ser Leu Leu Phe Pro
            180                 185                 190
Leu Arg Ser Ser Arg Pro Lys
        195
```

<210> 38206
<211> 137
<212> PRT
<213> A.fumigatus

<400> 38206

```
Ser Thr Gln Leu Ser Arg Ile Pro Asn Leu Asn Ile Met Asp Ser Glu
1               5                   10                  15
Tyr Glu Ala Phe Ile Thr Ala Gln Ser Gln Arg Asp Tyr Pro Ala Pro
            20                  25                  30
Ala Ser Met Leu Ser Ala Ile Lys Ser Leu Leu Val Asp Pro Ser Thr
        35                  40                  45
Pro Pro Ser Ala Ala Ala Arg Ala Ala Val Leu Gly Tyr Ile Gln Glu
    50                  55                  60
Ser Asn Pro Asp Pro Asp Tyr Thr Ser Leu Trp Pro Leu Leu Phe Ala
65                  70                  75                  80
```

```
Thr Ile Gly Lys Phe Thr Glu Gln Asn Asp Arg Leu Val Ala Phe Val
                85                  90                  95
Ala Asp Leu Gln Ser Leu Thr Glu Cys Asn Gly Ala Phe Ser Arg Leu
            100                 105                 110
Asp Gly Leu Ser Glu Tyr Met Thr Glu Phe Val Phe Asp Cys Met Ser
        115                 120                 125
Ser Pro Arg Ser Thr Leu Asn Ser Asn
    130                 135
```

<210> 38207
<211> 164
<212> PRT
<213> A.fumigatus

<400> 38207

```
Trp Leu Ser Lys Asp Ile Lys Val Ser Arg Lys Thr Ala Lys Asp Cys
1               5                  10                  15
Ala His Gln Gln Ala Ala Thr Arg Leu Pro Ser Lys Ile Gln Ala Phe
            20                  25                  30
Glu Val Asn Arg Lys Thr Leu Ser Tyr Asn Ser Lys Met Pro Ser Phe
        35                  40                  45
Phe Arg Ser Leu Ala Leu Tyr Ala Leu Leu Ala Gly Ala Leu Val Ala
    50                  55                  60
Gln Val Thr Asn Ala Tyr Pro Gln Pro Ala Leu Val His Ser Glu Asp
65                  70                  75                  80
Ala Ala Ile Pro His Asp Thr Ile Thr Thr Glu Pro Ile Ser Met Val
                85                  90                  95
Arg Ser Ile Glu Asp Asp Gly Asp Leu Tyr Gln Arg Ser Lys Pro Leu
            100                 105                 110
Lys Ile Ala Lys Glu Pro Thr Lys Ser Tyr Ser Cys Pro Ala Thr Asn
        115                 120                 125
Asn Tyr Gly Ser Asn Thr Tyr Thr Ser Gly Gln Leu Lys Ala Ala Phe
    130                 135                 140
Val Lys Ala Ala Gln Tyr Ala Asn Asp Gly Lys Gln Ile Gly Asp Ser
145                 150                 155                 160
Trp Phe Ala Ala
```

<210> 38208
<211> 409
<212> PRT
<213> A.fumigatus

<400> 38208

```
Ala Lys Asp Gly Asp Ile Leu Tyr Ile Tyr Tyr Arg Ala Glu Gly Ile
1               5                  10                  15
Gly Ile Thr Phe Pro Tyr Ile Arg His Phe Pro Met Met Thr Pro Leu
            20                  25                  30
Asp Lys Ser Lys Arg Ser Thr Pro Gln Gln Leu Gln Pro Gly Ser Pro
        35                  40                  45
Pro Cys Leu Pro Lys Pro Arg Gln Lys Trp Leu Val Arg Ser Val Ile
    50                  55                  60
Phe Val Glu Ser Asn Val Ile Glu Pro Arg Thr Gly Arg Ala Ser Thr
65                  70                  75                  80
Val Glu Trp Leu Asp Arg Asn Ala Ser Arg Ser Ser His Asp Val Glu
                85                  90                  95
```

```
Ser Ile Asp Ala Ala Ala Thr Leu Val Met Ile Arg Asp Thr Asn Phe
            100                 105                 110
Phe Gly Arg Tyr Lys Arg Ser Asn Val Arg Lys His Arg Ser Gly Ser
        115                 120                 125
Ala Arg Arg Ala His Ser Gln Asp Gly Asn His Ser Thr Pro Ser Thr
    130                 135                 140
Gln Pro Pro Leu Thr Arg Glu Ser Val Gly Pro His Pro Ile Gln Tyr
145                 150                 155                 160
Glu Thr Ala Gly Glu Glu Thr Gly Glu Ser Asp Gln Val His Cys Pro
                165                 170                 175
Gly Phe Ile His Met Val Asn Asn Pro Ala Arg Gly Met Glu Val Val
            180                 185                 190
Tyr Tyr Gly Asp Ser Phe Asn Leu Asn Tyr Val Leu Arg Glu Met Gly
        195                 200                 205
Asn Pro Phe Gln Gly Asp Phe Asp Ser Ser Ser Leu Lys Leu Arg Ile
    210                 215                 220
Glu Glu Leu Tyr Leu Asn Arg Leu Gly Gln Ser Thr Lys Asp Gln Leu
225                 230                 235                 240
Asp Ala His Glu Cys Ser Gln Arg Ile Arg Leu Glu Glu Met Gly Ala
                245                 250                 255
Phe Gln Arg Leu Asp Lys Glu Ile Ser Asp Ala Leu Ile Gln Thr Phe
            260                 265                 270
Phe Ala Val Val Tyr Pro Leu Cys Pro Ile Phe Asp Leu Ser Glu Phe
        275                 280                 285
His Thr Lys Tyr Arg Ala Glu His Phe Ser Pro Leu Val Leu Gln Ala
    290                 295                 300
Leu Tyr Phe Val Ala Ala Ser His Cys Glu Gln Ser Leu Ile Glu Lys
305                 310                 315                 320
Ala Gly Phe Pro Asn Arg His Met Ala Thr Phe Thr Phe Tyr Gln Arg
                325                 330                 335
Ala Lys Ala Leu Tyr Asp Ala Asn Tyr Glu Ser Asp Ala Ile Ala Thr
            340                 345                 350
Val Gln Ala Leu Tyr Leu Leu Ser Tyr Trp Trp Gly Ser Pro Leu Glu
        355                 360                 365
Gln Lys Asp Met Trp His Trp Thr Gly Leu Ala Val Gly Leu Ala Gln
    370                 375                 380
Thr Leu Gly Leu His Gln Arg Ser Val Asp Ile Ala Ile Ala Leu Asn
385                 390                 395                 400
Phe Val Leu Thr Asn Cys Pro Ile Gln
                405
```

<210> 38209
<211> 101
<212> PRT
<213> A.fumigatus

<400> 38209

```
Trp Gln Ala Asp Trp Arg Gln Leu Val Cys Ser Leu Ile Leu Glu Asp
1               5                   10                  15
Ile Val Ala His Cys Tyr Leu Gly His Tyr Pro His Thr Phe Gly Asn
            20                  25                  30
Gly Glu Lys Leu Pro Phe Pro Cys Gly Arg Ser Thr Met Glu Phe Pro
        35                  40                  45
Leu Asp Arg Asp His Pro Gly Thr Val Tyr Ser Gly Gln Ser Val Lys
    50                  55                  60
Asn Leu Pro Asp Arg Ile Val Phe Glu Phe Lys Asp Gly Lys Lys Glu
```

65 70 75 80
Ala Lys Ala Lys Phe Cys Gly Val Met Arg His Gly Asn Asn Gly Asp
85 90 95
Phe Val Asn Cys Pro
100

<210> 38210
<211> 168
<212> PRT
<213> A.fumigatus

<400> 38210
Ser Thr Ile Ser Ala Ala Gly Gly Ala Pro Ser Pro Ala Ser Ala Ser
1 5 10 15
Ser Ser Pro Pro Thr Ser Thr Trp Ala Arg Thr Trp Ala Cys Ser Arg
20 25 30
Gly Arg Ala Pro Thr Ala Pro Pro Pro Thr Pro Pro Ser Pro Leu Ser
35 40 45
Ser Ser Thr Pro Ser Ala Gly Pro Ser Ala Ser Ala Pro Ser Pro Thr
50 55 60
Ser Met Ala Arg Arg Ser Ser Pro Arg Ala Ser Ala Thr Ser Ala Thr
65 70 75 80
Arg Ser Ala Cys Arg Cys Thr Gly Ser Ser Ser Leu Leu Ser Ser Ala
85 90 95
Ser Leu Arg Thr Cys Ser Ser Arg Ser Met Cys Gly Ala Pro Thr Ser
100 105 110
Phe Gly Arg Ser Phe Ala Ser Leu Gly Ser Ser Ser Trp Ala Ser Gly
115 120 125
Cys Leu Arg Arg Arg Ala Cys Pro Leu Ser Gly Trp Val Ile Ser Ser
130 135 140
Arg Asp Arg Gly Thr Cys Ala Gly Glu Arg Ser Gln Asp Pro Ser Val
145 150 155 160
Pro Phe His Leu Leu Arg Leu Gly
165

<210> 38211
<211> 141
<212> PRT
<213> A.fumigatus

<400> 38211
Pro Trp Met Leu Cys Pro Ser Val Gly Tyr Asp Glu Gly Gly Phe Ser
1 5 10 15
Ala Ser Val Asn Leu Lys Ser Phe Val Ser Asp Phe His Leu Ala Ala
20 25 30
Ser Glu Trp Thr Asn Asn Lys Thr Glu Leu Ala Asn Arg Arg Ala Asn
35 40 45
Ile Thr Ser Phe Asn Val Leu Gly Ala Ala Leu Gly Ala Leu Leu Ala
50 55 60
Leu Asp Leu Asn Asp Arg Leu Gly Arg Leu Arg Ser Trp Arg Leu Ala
65 70 75 80
Cys Leu Ile Trp Ala Ala Gly Leu Phe Val Gln Ile Phe Ser Ser Gly
85 90 95
Ile Tyr Gly Leu Ile Leu Ala Ala Arg Leu Cys Ser Gly Leu Gly Ala
100 105 110
Gly Ile Leu Thr Val Thr Thr Pro Leu Tyr Leu Ser Glu Ile Gly Met

```
        115                 120                 125
Gly Cys Leu Ile Trp Thr Gln Leu Ala Asp Thr Lys Cys
    130                 135                 140
```

<210> 38212
<211> 364
<212> PRT
<213> A.fumigatus

<400> 38212

```
Thr Asp Ile Val Lys Gly Phe Phe Ile Asn Tyr Ala Ala Ser Leu His
1               5                  10                  15
Met Ala Pro Thr Arg Thr Gln Tyr Arg Leu Val Gln Ser Ile Pro Leu
            20                  25                  30
Ile Pro Val Gly Ile Ala Phe Phe Ala Ser Val Ile Ala Pro Glu Thr
        35                  40                  45
Pro Arg Tyr Leu Val Ser Lys His Arg His Asp Glu Gly Arg Ser Val
    50                  55                  60
Leu Ala Arg Leu Arg Gly Arg Gln Val Ser Asp Pro Ala Ile Glu Asp
65                  70                  75                  80
Glu Phe Lys Ser Ile Asp Ala Gln Val Arg Thr Lys Ala Met Asp Leu
                85                  90                  95
Ala Ser Val Thr His Trp Glu Ala Phe Lys Glu Thr Gln Leu Asn Pro
            100                 105                 110
Asn Tyr Arg Gln Arg Phe Trp Leu Leu Ile Ala Met Gln Thr Ile Ser
        115                 120                 125
Gln Trp Thr Gly Gly Asn Gly Ile Thr Tyr Tyr Val Ala Thr Ile Phe
    130                 135                 140
Gln Tyr Ala Gly Ile Asp Gly Asn Ala Arg Ser Leu Val Ser Ser Gly
145                 150                 155                 160
Ala Tyr Gly Ile Val Lys Leu Val Phe Thr Met Ala Phe Thr Trp Gly
                165                 170                 175
Leu Ile Asp Tyr Leu Gly Arg Arg Arg Cys Ala Leu Ala Gly Leu Ser
            180                 185                 190
Leu Gln Leu Ala Ala His Ile Tyr Met Gly Ala Tyr Met Gly Leu Gln
        195                 200                 205
Pro Gly Ser Ser Thr Asn Arg Ser Ala Ser Asn Ala Ala Ile Ala Ser
    210                 215                 220
Val Phe Ile Tyr Ala Val Gly Trp Ser Ile Gly Leu Cys Thr Ile Pro
225                 230                 235                 240
Tyr Leu Tyr Gly Ala Glu Ile Phe Pro Thr Arg Ile Arg Asn Val Ser
                245                 250                 255
Tyr Ala Ile Ser Met Ser Leu His Trp Phe Phe Gln Phe Ala Val Val
            260                 265                 270
Arg Val Thr Pro Asn Met Phe Val Ala Leu Asp Val Trp Gly Ala Tyr
        275                 280                 285
Val Phe Trp Ala Ile Ile Cys Phe Ser Gly Leu Val Ile Leu Gly Ile
    290                 295                 300
Trp Met Pro Glu Thr Lys Gly Val Pro Ile Glu Arg Met Gly Asp Leu
305                 310                 315                 320
Phe Glu Gly Pro Trp Tyr Leu Arg Trp Arg Ala Lys Pro Arg Pro Ile
                325                 330                 335
Ser Ser Phe Ser Pro Ser Pro Ala Gly Met Asn Ala Gly Asp Pro Pro
            340                 345                 350
Gly Glu Lys Arg Pro Gly Trp Ala Asn Ala Ser Val
        355                 360
```

<210> 38213
<211> 108
<212> PRT
<213> A.fumigatus

<400> 38213
Thr Pro Ala Val Asp Asp Thr Ser Glu Ile Glu Ile Trp Thr Pro His
1 5 10 15
Gly Val Ile Phe Pro Glu Gly Thr His Tyr Pro Pro Thr Gln Ala His
20 25 30
Ser Thr Ser Cys Phe Met Arg Met Cys Gly Leu Ala Glu Ile Leu Asn
35 40 45
Glu Ile Leu Ile His Ile Tyr Asp Pro Ile Arg Gln Val Ser Glu Ala
50 55 60
Glu Phe His Asp Cys Val Gln Glu Gln Ala Arg Asn Leu Thr Glu Trp
65 70 75 80
Trp Asp Glu Leu Pro Asp Tyr Leu Lys Leu Val Val Thr Glu Leu Pro
85 90 95
Pro Tyr Ser Pro Pro Ser His Ile Val Ile Leu Lys
100 105

<210> 38214
<211> 181
<212> PRT
<213> A.fumigatus

<400> 38214
Pro Thr Ser Ser Asp Arg Gln Asn Lys Lys Lys Cys Leu Gln Ser Pro
1 5 10 15
Gly Asp Met Lys Ile Asn Gly Pro Tyr Tyr Ser Asp Thr Leu Leu Asn
20 25 30
Ala Ile Leu Ser His Ser Val Arg Trp Cys Lys Ser Glu Pro Lys Ile
35 40 45
Gly Pro Ile Leu Glu Ser Phe Asp Gly Gly Ala Gln Phe Ser Asp Arg
50 55 60
Ala Val Thr Gly Leu Tyr Asp Ser Leu Arg Val Gly Tyr Ala Gly Ile
65 70 75 80
Pro Thr Ile Gln Thr Leu Leu Ile Leu Ser Ala Gln Glu Cys Gly Arg
85 90 95
Gly Asn Arg Thr Gln Ala Trp Leu Tyr Ser Gly Met Ala Phe Arg Leu
100 105 110
Leu Asp Asp Leu Gly Ile Ser Ile Asp Ser Arg Lys Tyr Pro Asp Ala
115 120 125
Ala Gln Leu Ser Asp Glu Asp Ile Glu Ile Arg Asn Arg Leu Phe Trp
130 135 140
Ser Cys Tyr Phe Trp Asp Lys Leu Val Ser Leu Tyr Phe Gly Arg Ser
145 150 155 160
Pro Thr Met Gln Asn Ser His Val Ser Pro Pro Arg Thr Ile Cys Glu
165 170 175
Leu Ser Leu Leu Val
180

<210> 38215
<211> 171
<212> PRT

<213> A.fumigatus

<400> 38215

```
Phe Pro Pro Val Ile Thr Thr Ala Leu Gly Leu Ile Tyr His Glu Leu
1               5                  10                  15
Glu Lys Phe Arg Ile Asp Ile His Ile Thr Leu Pro Pro Ser Gln Ser
            20                  25                  30
Glu His Pro Ser Ser Glu Pro Ala Ser Gln Ala His Ser Pro Thr His
        35                  40                  45
Ser Gln Ser Pro Ser Gln His Pro Gly Gln Pro Ala Leu His Leu Arg
    50                  55                  60
Ser Gly Ser Arg His Val Ser Pro Ala Gly Gln Ala Pro Thr Met Pro
65                  70                  75                  80
Gly Ser Leu Pro Ala Pro Arg Val Thr Asn Ala Pro Leu Pro His Gln
                85                  90                  95
Gly Tyr Ala Phe Gln Arg Ser Val Gly Asp Phe Glu Pro Ser Gln Thr
            100                 105                 110
Gly Val Pro Pro Leu Pro Ala Thr His Leu Leu Gly Gly Met Pro Asn
        115                 120                 125
Ala Ala Met Thr Leu Asp Asn Pro Gly Pro Tyr Glu Ile Thr Pro Glu
    130                 135                 140
Val Phe Glu Ala Phe Ser Tyr Ala Glu Pro Ile Thr Ala Asn Met Ala
145                 150                 155                 160
Ser Ala Phe Glu Ser Ala Trp Gly Arg Pro Gly
                165                 170
```

<210> 38216
<211> 155
<212> PRT
<213> A.fumigatus

<400> 38216

```
Ala Ala Gly Leu Ser Glu Ala Gly Gly His Arg Ala Thr Ser Leu Leu
1               5                  10                  15
Ala Thr Lys Pro Tyr Arg Asp Pro Glu Val Ser Leu Ser Pro Leu Arg
            20                  25                  30
Phe Asp Gly Thr Ile Tyr Asn Gly Leu Leu His Ser Cys Leu Tyr His
        35                  40                  45
Thr Ile Asn Ile Leu Leu His Arg Pro Ile Leu Cys Ser Lys Arg Asn
    50                  55                  60
Arg Glu Thr Tyr Asp Gln Ser His Leu Val Gln Cys Met Thr Ser Ala
65                  70                  75                  80
Thr Ala Ile Leu Ser Leu Tyr Asp Leu Tyr Cys Gln Thr Phe Gly Asp
                85                  90                  95
Ala His Val Val Leu Ser Leu Ala Tyr Ser Val Tyr Thr Ala Ala Ser
            100                 105                 110
Ile Phe Leu Leu Glu Ile Gln Ala Leu Lys Tyr Ala Ala Pro Gly Thr
        115                 120                 125
Leu Asn Lys Leu Lys Phe Cys Ile Leu Ala Leu Glu Arg Val Lys Val
    130                 135                 140
Ser Ser Pro Gly Thr Ala Glu Pro Phe Ser Arg
145                 150                 155
```

<210> 38217
<211> 127
<212> PRT

<213> A.fumigatus

<400> 38217

```
Gln Ala His Ala Asp Phe Leu Gln Ser Ser Pro Gln Leu Trp Ala Ser
1               5                  10                  15
Tyr Thr Met Asn Trp Arg Ser Ser Glu Leu Thr Ser Thr Ser Pro Ser
            20                  25                  30
His His Arg Ser Pro Asn Ile His Pro Gln Asn Pro Pro Arg Lys His
        35                  40                  45
Thr Pro Gln Leu Thr Val Asn Pro Pro Ala Ser Thr Pro Ala Ser Pro
    50                  55                  60
Leu Tyr Ile Tyr Val Ala Ala Pro Val Met Ser Pro Gln Pro Ala Lys
65                  70                  75                  80
Arg Pro Pro Cys Gln Ala Pro Ser Pro His Arg Ala Ser Gln Thr Arg
                85                  90                  95
Pro Cys Arg Thr Arg Ala Thr His Ser Ser Asp Leu Ser Gly Ile Ser
            100                 105                 110
Asn Arg Arg Arg Arg Ala Cys Arg Pro Ser Leu Leu Arg Ile Tyr
        115                 120                 125
```

<210> 38218
<211> 909
<212> PRT
<213> A.fumigatus

<400> 38218

```
Phe Gly Ser Asn Gly Asp Ser His Gln Arg Ile Ser Thr Arg Met Thr
1               5                  10                  15
Glu Gly Arg Ala Ser Gly Glu Leu Glu Gly Ser Thr Leu Gly Ser Ser
            20                  25                  30
Ser Arg Asp Gly Asp Arg Ala Arg Arg Ser Gln Arg Arg Thr Ala Ser
        35                  40                  45
Ser Ser Ser Phe Leu Val Asp Ser Ser Phe Leu Ser Lys Ser Lys Ser
    50                  55                  60
Ile Arg Thr Ser Ser His Arg Pro Arg Leu Leu Glu Ser His Arg Asn
65                  70                  75                  80
Glu Lys Arg Gly Ala Pro Glu Ser Asp Ile Ala Thr Pro Lys Lys Arg
                85                  90                  95
Ser Arg Phe Pro Trp Ser Arg Asn Arg Glu Ser Val Glu Gly Ser Ser
            100                 105                 110
Val Glu Gly Ser Ser Val Ile Ala Gly Pro Gln Glu Ala Ala Gly Thr
        115                 120                 125
Glu Thr Ser Gly Pro Ser Ser Ala Gln Gln Pro Pro Thr Ser Glu Pro
    130                 135                 140
Leu Pro Ala Arg Ala Asp Asn Asn Glu Ala Val Pro Gly Leu Asp Arg
145                 150                 155                 160
Asp Ser Leu Gln Ile Val Asn Leu Ala Leu Asn Leu Ser Glu Ser Arg
                165                 170                 175
Arg Arg Asn Asn Leu Gly Arg Ser Val Ser Thr Arg Leu Ser Gly Ala
            180                 185                 190
Gly Gly Ser Val Pro Tyr Ala Asp Ser Ala Thr Leu Thr Thr Gly Ala
        195                 200                 205
Gly Arg Gly Tyr Pro Thr Leu His Thr Arg Arg Asp Tyr Pro His Pro
    210                 215                 220
Gly Ile Ser His Arg Ala Thr Pro Leu Pro Gly Glu Leu Ala Val Asn
225                 230                 235                 240
```

```
Pro Ala Ser Val Leu Asp Leu Leu Pro Asn Ala Ala Gly Glu Glu Thr
                245                 250                 255
Leu Pro His Ala Phe Ser Thr Ser Thr Leu Ala Arg Ala Asp Lys Ala
            260                 265                 270
Arg Arg His Phe Glu Leu Phe His Leu Tyr Leu Arg Leu Leu Pro Ser
        275                 280                 285
Leu Pro Pro Leu Arg His His Gly Thr Gln Asp Ala Thr Asp Ala Ser
    290                 295                 300
Ser Ala Ser Lys Ala Ser Phe Pro Gln Ala Arg Asp Tyr Asn Pro Leu
305                 310                 315                 320
Gln Ala Ile Arg Asn Arg Lys Val Arg Phe Arg Glu Arg Arg Pro Ile
                325                 330                 335
Asp Pro Glu Ser Glu Gly Trp Tyr Asp Val Ala Arg Val Arg Glu Trp
            340                 345                 350
Val Asn Ser Val Gln Phe Gln Tyr Gly Asp Arg Ser His Leu Pro Ser
        355                 360                 365
Glu Cys Leu Lys Leu Pro Pro Phe Glu Arg Gly Glu Lys Asp Pro Pro
    370                 375                 380
Arg Glu Glu Pro Asp Asp Pro Asp Leu Phe Ala Ala Ser Pro Pro Ser
385                 390                 395                 400
Ser Leu Arg Arg Val Ser Arg Thr Ser Ser Thr Lys Ala Ala Arg Arg
                405                 410                 415
Pro Arg Phe Asp Trp Ala Ile Ser Pro Ala Glu Leu Leu Ala Asp Ala
            420                 425                 430
Ala Trp Val Glu Glu Gly Gln Asn Lys Ser Lys Met Val Asp Lys Asp
        435                 440                 445
Gly Asn Leu Leu Phe Pro Asp Pro Ala Gln Leu His Pro Cys Gly Glu
    450                 455                 460
Met Pro Pro Thr Ser Ala Gln Ala His Met Gln Ala Lys Ser Pro Ser
465                 470                 475                 480
Ala Gly Ala Arg His Ala Asp Ser Asp Thr Ser Phe Ser Asn Ala His
                485                 490                 495
Pro Ala Leu Gly Ala Glu Phe Arg Ser Val Asn Arg Gly Arg Arg Arg
            500                 505                 510
His Arg Tyr His Ser Ala Ala His Gly Phe His Ser Arg Gly Thr Ser
        515                 520                 525
Leu Thr Ser Ile Gly Thr Lys Glu Arg Lys Leu Gly Leu Arg Ser Ser
    530                 535                 540
Ser Ser Ser Ser Val Ser Ala Thr Gly Glu Arg His Ser Trp Tyr His
545                 550                 555                 560
His Ala Asp Asn Ala Gly Gly Ser Ala Ala Ser Lys Leu Thr Arg Ala
                565                 570                 575
Arg Ser Ala Arg Val Asn Ser Ser Thr Thr Ala Pro Asp Glu Glu His
            580                 585                 590
Gly Leu Asp Ala Gly Pro Leu Pro Ser Gln Thr Ser Thr Ile Gln Pro
        595                 600                 605
Met Trp Ala Lys Leu Asp Glu Arg Ser Gly Ser Leu Ser Ser Ala Ala
    610                 615                 620
Ser Arg Gln Asp Pro Ser Ser Thr Gly Thr Pro Pro Val Pro Leu Gly
625                 630                 635                 640
Tyr Phe Pro Ser Ile Ala Ser Asn Leu Ser Pro Pro Ser Ser Arg Ser
                645                 650                 655
Pro Ser Pro Ser Lys Arg Gln Val Ala His Gly Ile Ile Ala Arg His
            660                 665                 670
Ala Arg Ser Lys Ser Arg Ser Arg Pro Arg Glu Ile Leu Glu Asp Lys
        675                 680                 685
```

```
Leu Ile Ser Ala Thr Asp Thr Ala Glu Asn Leu Gln Gln Tyr Ile Pro
    690                 695                 700
Asp Ala Ala Tyr Arg Ala Gly Lys Leu Glu Pro Ser Pro Ile Pro Asp
705                 710                 715                 720
His Val Ser Pro Leu Asn Gln Ala Asp Lys Thr Arg Thr His Thr His
                725                 730                 735
Val Arg Lys Gly Ser Phe Gln Pro Glu Ser Arg Leu Arg Gly Ile Phe
            740                 745                 750
Lys Gly Pro Gly Lys Ile Ala Glu Ile Val Gly Asn Glu Val Ser Lys
        755                 760                 765
Met Gly Asp Leu Ile Met Lys Lys Asp Asp Pro Ala His Ser Arg Thr
    770                 775                 780
Ser Ser Leu Glu Thr Ala Leu Pro Ser Glu Asp Ser Ala Leu Asp Glu
785                 790                 795                 800
Gly Glu Glu Thr Lys Gly Glu Lys Arg Ser Gly Pro Lys Ala Leu Leu
                805                 810                 815
Arg Arg Leu Pro Thr Phe Ser Asp Gly Thr Pro Arg Lys His Ser Glu
            820                 825                 830
Arg Val Ser Ala Lys Gly Leu Leu Gln Ser Thr Ala Ala Leu Ala Thr
        835                 840                 845
Pro Ser Arg Arg Ile Glu Gln Glu Glu Gln Cys Arg Ala Ser Ala Leu
    850                 855                 860
Asp Ser Pro Met Lys Gln Gly Pro Asp Ala Ser Phe His Asp Ala Gln
865                 870                 875                 880
Val Ser Gln Thr Lys Asn Leu Asp Ala Pro Met Leu Gln Lys Asn Ala
                885                 890                 895
His Leu Leu Ala Glu Lys Ile Gly Asp Gly Pro Lys Asn
            900                 905
```

<210> 38219
<211> 310
<212> PRT
<213> A.fumigatus

```
<400> 38219
Ser Arg Val Gln Met Leu Arg Ser Met Met His Arg Cys Arg Arg Arg
1               5                   10                  15
Arg Ile Ser Met Leu Gln Cys Tyr Arg Arg Met His Thr Phe Trp Arg
            20                  25                  30
Arg Lys Leu Val Met Ala Gln Arg Ile Glu Pro Glu Phe Gln Ala Val
        35                  40                  45
Arg Ser Gln Ile Glu Lys Arg Gln Ile Lys Asp Pro Ser Val Pro Phe
    50                  55                  60
Ser Met Ile Arg Pro Pro Val Thr Gly Leu Ala Gln Ala Glu Ile Ser
65                  70                  75                  80
Ala Ala Asp Arg Leu Gln Asp Lys Leu Arg Gly Ala Ser Gly Gln Ser
                85                  90                  95
Arg Thr Trp Ser Ile Ser Asn Arg Ser Ile Ser Thr Ser Val Asp Ser
            100                 105                 110
Gly Ile Pro Asp Arg Arg Glu Ile Glu Arg Thr Arg Ala Leu Leu Leu
        115                 120                 125
Thr Ser Gly Ile Lys Ala Arg Glu Ile Thr Arg Arg Ala Glu Ser Ile
    130                 135                 140
Arg Ser Pro Pro Pro Asp Phe Leu Gln Lys Ala Tyr Ser Gly Ser Pro
145                 150                 155                 160
Val Pro Gln Val Ile Arg Leu Tyr Glu Phe Asp Val Ala Ala Lys Gly
```

```
                165                 170                 175
Leu Leu Arg Arg Leu Glu Thr Ser His Asp Ser Phe Arg Arg Thr Ile
            180                 185                 190
Glu Asp Tyr Pro Arg Ala Ser Gly Ala Leu Arg Thr Gln Leu Ala Gln
        195                 200                 205
Leu Glu Asp Leu Val Asn Gln Thr Leu Ala Pro Arg Val Arg Ala Leu
    210                 215                 220
Ala Asp Asp Ala Glu Asn Leu Ser Val Glu Leu Asn Thr Thr Ser Thr
225                 230                 235                 240
Leu Ala Val Lys His Leu Ser Asp Lys Leu Asp Lys Gly Ile Arg Lys
                245                 250                 255
Arg His Arg Arg Leu Arg Trp Leu Arg Arg Thr Gly Phe Val Met Leu
            260                 265                 270
Glu Trp Ala Leu Val Ala Met Leu Trp Trp Val Trp Leu Ile Val Met
        275                 280                 285
Ala Phe Lys Val Leu Arg Tyr Ile Phe Arg Gly Ala Ile Ala Gly Leu
    290                 295                 300
Arg Trp Val Leu Trp Leu
305                 310
```

<210> 38220
<211> 590
<212> PRT
<213> A.fumigatus

<400> 38220

```
Gln Ser Arg Ile Leu Pro Ala Pro Ser Cys Arg Leu Gly Arg Pro Glu
1               5                   10                  15
Gly Phe Asn Ile Ile Arg Asn Gly Lys Asn Gln Gln Trp Tyr Thr Val
            20                  25                  30
Arg Ala Pro Leu Leu His Ala Phe Leu Phe Gln Arg Ile Val Ile Asp
        35                  40                  45
Glu Phe Thr Tyr Ala Gly Asn Glu Arg Leu Ala Pro Leu Leu Ala Leu
    50                  55                  60
Arg Ala Arg Ser Lys Trp Val Leu Ser Gly Thr Pro Pro Leu Asn Asp
65                  70                  75                  80
Phe Ala Asp Val Lys Thr Ile Ala Pro Phe Leu Gly Ile His Leu Gly
                85                  90                  95
Val Asp Asp Glu Asn Thr Ser Phe Gln Asn His Arg Leu Lys Val Leu
            100                 105                 110
Arg Arg Asn Arg Ser Asp Ala Glu Val Phe Gln Ser Trp Arg Ala Pro
        115                 120                 125
His Ser Glu Ala Trp His Arg Asn Arg His Glu Val Ala Gln Arg Phe
    130                 135                 140
Leu Asn Gln Phe Ala Arg Arg Asn Ile Ala Asp Ile Asp Glu Ile Pro
145                 150                 155                 160
Cys Ser Glu His Leu Ile Leu Ile Asp Gln Ser Pro Ala Glu Cys Ala
                165                 170                 175
Ile Tyr Leu Glu Leu Tyr Met Gln Leu Met Thr His Lys Lys Gln Leu
            180                 185                 190
Arg Arg Ser Arg Arg Gly Arg Phe Lys Asn Asp Gln Asn Glu Arg Leu
        195                 200                 205
Asp Glu Ile Ile Ser Ser Ser Met Ser Thr Glu Glu Ala Leu Leu Lys
    210                 215                 220
Arg Cys Cys Ser Val Thr Leu Lys Glu Arg Trp Glu Glu Gly Lys Pro
225                 230                 235                 240
```

```
Glu Ala Val Thr Cys Ser Ser Leu Ile Thr Thr Arg Glu Glu Gln Leu
                245                 250                 255
Ala Asn Leu Arg Ala Glu Phe Ser Ser Lys Met Lys Leu Ala Ile Trp
            260                 265                 270
Leu Tyr Phe Thr Trp Asp Leu Lys Tyr Glu Lys Phe His Lys Phe Ala
        275                 280                 285
Glu Gly Ile Leu Met His His Phe Gly Asp Glu Val Val Thr Thr Ala
    290                 295                 300
Ala Phe Leu Leu Phe Lys Ser Ala Met Cys Ala Ser His Pro Asn Asp
305                 310                 315                 320
Trp Lys Leu Phe Phe Thr Glu Lys Gly Ser Asn Pro Arg Lys Glu Asn
                325                 330                 335
Ser Pro Glu Glu Ala Glu Thr Gly Thr Thr Val Ser Gln Glu Asn Ala
            340                 345                 350
Gly Ser Leu Glu Gly Asp Lys Met Thr Glu Glu Arg Val Ala Gly Lys
        355                 360                 365
Gly Ala Gln Lys Arg Gln Ala Lys Lys Thr Lys Arg Ala Glu Val Asn
    370                 375                 380
Lys Asp Gln Cys Ser Glu Leu Pro Ile Lys Pro Thr Ile Leu Asp Asp
385                 390                 395                 400
Phe Glu Leu Cys Met Asp Glu Val Thr Ser Ile Leu Arg Asn Ile Leu
                405                 410                 415
Ser Glu Trp Val Arg Arg Lys Arg Ala Leu Arg Phe Leu Arg Thr Val
            420                 425                 430
Arg Met Leu Gln Thr Asn Arg Glu Thr Pro Gly Cys His Cys Cys Arg
        435                 440                 445
Glu Glu Val Gln Ser Arg Ser Asp Leu Asn Val Val Gly Ser Cys Gly
    450                 455                 460
His Ala Leu Cys Lys Asp Cys Thr Glu Lys Thr Val Arg Phe Glu Glu
465                 470                 475                 480
Cys Ile Val Asp Asn Cys Arg Gly Ser Gly Thr Lys Phe Asn Met Ile
                485                 490                 495
Ser Ala Ala Ser Leu Gly Phe Glu Glu Asp Arg Ser Thr Gln Tyr Gly
            500                 505                 510
Gly Arg Lys Met Asp Lys Leu Val Glu Ile Val Lys Glu Ile Pro Asn
        515                 520                 525
Gln Glu Arg Ala Ile Leu Phe Ile Gln Phe Pro Glu Leu Ile Asp Val
    530                 535                 540
Ala Ser Lys Ala Phe Asp Leu Ala Lys Ile Thr His Ala Val Ile Thr
545                 550                 555                 560
Ala Arg Asp Thr Lys Lys Ile Glu Glu Phe Lys Lys Gly Asn Glu Lys
                565                 570                 575
Val Ala Ile Leu Gln Leu Gly Ser Glu Thr Ala Ala Gly Leu
            580                 585                 590
```

<210> 38221
<211> 150
<212> PRT
<213> A.fumigatus

<400> 38221

```
Arg Arg Val Thr Pro Arg Arg Leu Lys Asn Leu Lys Arg Val Thr Lys
1               5                  10                  15
Arg Leu Arg Tyr Cys Ser Trp Val Ala Arg Arg Leu Leu Val Cys Lys
            20                  25                  30
Trp Pro Ser Pro Thr Ile Leu Ser Leu Leu Ser His Pro Ile Phe Phe
```

```
        35                  40                  45
His Arg Asn Leu Gln Cys Thr Asn His Val Ile Phe Leu Ser Pro Met
    50                  55                  60
Leu Ala Glu Thr Gln Tyr Asp Tyr Asp Ser Ser Met Thr Gln Ala Ile
65                  70                  75                  80
Gly Arg Ala Leu Arg Tyr Gly Gln Thr Arg Arg Val His Val Tyr His
                85                  90                  95
Leu Leu Met Lys Arg Thr Ile Asp Val Asn Ile Leu Gln Glu Arg Arg
            100                 105                 110
Gly Lys Ile Leu Val Glu Arg Asn Gly Gln Ala Val Leu Val Lys Ala
        115                 120                 125
Asp Glu Cys Leu Ala Glu Glu Ala Leu Ser Cys Gln Gly Pro Ala Leu
    130                 135                 140
Val Val Asp Asn Phe Leu
145                 150
```

<210> 38222
<211> 175
<212> PRT
<213> A.fumigatus

<400> 38222

```
Gln Met Ser Leu Lys Ala Val Ser Leu Ala Arg Gln Ala Ala Ser Lys
1               5                   10                  15
Thr Leu Phe Gln Ser Val Arg Ser Val Gln Pro Leu Leu Leu Val Ser
            20                  25                  30
Thr Ser Pro Leu Ser Thr Ala Cys His Pro Thr Thr Leu Pro Thr Thr
        35                  40                  45
Gln Thr Ala Ala Arg Pro Pro Phe Arg Pro Tyr Lys Arg Thr Met Ser
    50                  55                  60
Thr Thr Val Pro Asp Arg Tyr Lys Leu Ile Phe Phe Val Pro His Ser
65                  70                  75                  80
His Leu Glu Gln Cys Lys Glu Ala Ile Phe Ala Thr Gly Ala Gly Thr
                85                  90                  95
Phe Pro Gly Gly Lys Tyr Ser Lys Cys Ala Phe Gln Thr Pro Gly Gln
            100                 105                 110
Gly Gln Phe Leu Pro Ser Gly Asp Ala Asn Pro Ala Ile Gly Thr Val
        115                 120                 125
Gly Gln Leu Glu Thr Val Glu Glu Met Lys Val Glu Ile Met Cys Leu
    130                 135                 140
Gly Arg Ser Ile Met Leu Gln Ala Val Glu Ala Leu Lys Lys Ala His
145                 150                 155                 160
Pro Tyr Glu Glu Val Ala Tyr Glu Val Tyr Lys Met Glu Asn Val
                165                 170                 175
```

<210> 38223
<211> 130
<212> PRT
<213> A.fumigatus

<400> 38223

```
His Pro Ala Thr Tyr Val Ala Ala Val Ser Pro Lys Ile Leu Gln Thr
1               5                   10                  15
Ile Gln Glu His Leu Gly Ile Thr Ala Gly His Thr Thr Glu Asp Gly
            20                  25                  30
Leu Phe Thr Phe Ile Glu Val Glu Cys Leu Gly Ala Cys Val Asn Ala
```

```
        35                  40                  45
Pro Met Val Gln Ile Asn Asp Asp Tyr Tyr Glu Asp Leu Thr Pro Glu
    50                  55                  60
Ser Ile Lys Ala Leu Leu Thr Ala Leu Lys Glu Ser Ala Thr Ala Ala
65                  70                  75                  80
Glu Ser Gly Lys Glu Val Lys Val Pro Ala Pro Gly Pro Leu Ser Gly
                85                  90                  95
Arg His Ser Cys Glu Asn Ser Ala Gly Leu Thr Asn Leu Gln Asn Pro
            100                 105                 110
Val Trp Asp Pro Glu Thr Met Met Arg Lys Asp Gly Ala Leu Asp Gln
        115                 120                 125
Gln Ala
    130
```

<210> 38224
<211> 115
<212> PRT
<213> A.fumigatus

<400> 38224

```
Gly Ile Ala Asn Leu Met Arg Gly Leu Val Arg Lys Glu Ile Met Leu
1               5                   10                  15
Thr Val Cys Pro Leu Ser Asn Val Arg Leu Arg Cys Val Gln Ser Val
            20                  25                  30
Glu Gln Val Pro Ile Arg Lys Phe Leu Asp Ala Gly Val Lys Phe Ser
        35                  40                  45
Ile Asn Ser Asp Asp Pro Ala Tyr Phe Gly Gly Tyr Ile Leu Asp Asn
    50                  55                  60
Tyr Cys Ala Val Gln Glu Ala Phe Gln Leu Ser Ile Leu Glu Trp Arg
65                  70                  75                  80
Val Ile Ala Glu Asn Ser Val Asn Glu Ser Trp Ile Asp Glu Ala Arg
                85                  90                  95
Lys Ala Glu Leu Leu Lys Arg Ile Asp Asp His Val Gln Lys His Thr
            100                 105                 110
Val Val Ala
        115
```

<210> 38225
<211> 98
<212> PRT
<213> A.fumigatus

<400> 38225

```
His Arg Asn Lys Pro Asn Asn Asn Pro Ser Ile Pro Phe Lys Phe Ser
1               5                   10                  15
Glu Gln Asn Met Lys Leu Val Asp Glu Ile Leu Lys Arg Tyr Pro Pro
            20                  25                  30
Gln Tyr Lys Lys Gly Ala Val Met Pro Leu Leu Asp Leu Gly Gln Arg
        35                  40                  45
Gln His Gly Tyr Thr Asn Ile Ser Val Met Asn Glu Val Ala Arg Ile
    50                  55                  60
Leu Glu Met Pro Pro Met Arg Val Tyr Glu Ile Ala Thr Phe Tyr Thr
65                  70                  75                  80
Met Tyr Asn Arg Glu Pro Val Gly Lys Tyr Phe Val Gln Leu Cys Thr
                85                  90                  95
Thr Val
```

<210> 38226
<211> 61
<212> PRT
<213> A.fumigatus

<400> 38226
Gly Val Phe Ser Ala Ser Ala Arg Leu Ser Ser Asp Gln Ser Pro Thr
1 5 10 15
Asn Pro Thr Ala Ser His Pro Trp Pro Lys Pro Leu Ala Val Pro Glu
20 25 30
Phe Gly Val Thr Ala Leu Ser Thr Ser Val Gly Asp Thr Glu Val Gln
35 40 45
Met Asn Ser Ala Lys Ile Glu Arg Ser Ile Gly Phe Gln
50 55 60

<210> 38227
<211> 119
<212> PRT
<213> A.fumigatus

<400> 38227
Ser Ile Phe His Arg Phe Val Gln Asp Tyr Arg Ala Glu Lys Thr Ile
1 5 10 15
Met Ser Leu His Arg Leu Ser Ala Pro Val Cys Lys Val Leu Arg Asp
20 25 30
Gly Arg Val Val Ser Val Pro Ala Glu Ser Val Leu Leu Gly Asp Val
35 40 45
Val His Leu Thr Val Gly Asp Ile Val Ser Ala Asp Leu Arg Met Ile
50 55 60
Asp Gly Thr Asn Val Ser Met Asp Glu Ala Leu Ala Thr Gly Glu Ser
65 70 75 80
Leu Pro Val Asn Lys Thr Pro Asp Ile Cys Leu Ser Phe His Asn Met
85 90 95
Pro His Gly Asp Gly Thr Thr Met Ala Tyr Ser Gly Cys Ser Met Asn
100 105 110
Gln Gly Arg Ala Thr Trp Asn
115

<210> 38228
<211> 62
<212> PRT
<213> A.fumigatus

<400> 38228
Val Asn Ile Phe Gly Pro Val Arg Leu Tyr His Val Ser Leu Thr Arg
1 5 10 15
Leu Ser Arg Asn Gly Leu Ser Ser Ala Glu Ala Ala Thr Arg Leu Glu
20 25 30
Arg Asp Gly Pro Asn Arg Val Gln Glu Ile Glu Gly Val Ser Thr Trp
35 40 45
Lys Ile Leu Leu Arg Gln Val Ser Asn Ser Leu Thr Met Val
50 55 60

<210> 38229

<211> 150
<212> PRT
<213> A.fumigatus

<400> 38229
Ala Lys Val Gly Met Ala Asp Phe Ala Trp Thr Gln Gln Tyr Leu Thr
1 5 10 15
Leu Leu Pro Ala Leu Leu His Ala Ser Leu Leu Ala Leu Ile Ser Ala
20 25 30
Ser Val Pro Leu Ser Met Thr Phe Ala Ala Cys Ile Leu Ala Val Thr
35 40 45
Ser Ser Gly Asp Ile Ile Arg Gln Pro Ser Val Ser Gln Ala Ala Ala
50 55 60
Ala Lys Ser Leu His Val Leu Ala Phe Ser Ser Lys Gly His Leu Leu
65 70 75 80
Leu Ser Glu Ser Gln Arg Thr Phe Asp Phe Ala Thr Trp Glu Lys Val
85 90 95
His Gln His Ala Ser Ala Ile Cys Arg Gly Thr Leu Ala Ser Asn Ala
100 105 110
Asp Asp Asp Val Ser Met Gly Glu Glu Gly Gly Glu Gln Gly Leu Glu
115 120 125
Lys Phe Met Arg Glu Thr Ile Glu Asp Lys Val Tyr Gln Asp Tyr Ala
130 135 140
Trp Lys Ile Asp Ala Ala
145 150

<210> 38230
<211> 157
<212> PRT
<213> A.fumigatus

<400> 38230
Ser Gln Ile Pro Pro Ser Lys Ala Val Gly Pro Thr Pro Pro Leu Ile
1 5 10 15
His Ser Arg Ala Leu Ser Ser Leu Met Ala Ser Ser Ser Ser Ser His
20 25 30
Gly Pro Leu Lys Pro Gln Ser Asp Thr Leu Pro Ser Glu Cys Ser Ala
35 40 45
Leu Leu Ser Ser Ser Ser Pro Pro Leu Ser Ser Ala Thr Pro Leu Ser
50 55 60
Asp Pro Thr Ser Pro Asp Ser Cys Pro Leu Thr Ser Thr Thr Val Gly
65 70 75 80
Val Ser Leu Leu Arg Asp Tyr Ala Ser His Ile Asp Pro Ser Gln Ser
85 90 95
Thr Asn Asp Leu His Val Asn Gln Ser Thr Ser Gly Leu Ser Asn Ser
100 105 110
Arg Ala Asn Val Pro Gln Lys Leu Glu Leu His Gln Gln Glu Ala Pro
115 120 125
Pro Val Ala Ser Leu Pro Thr Ser Pro Phe Leu Ser Phe Arg Thr Ala
130 135 140
Gly Pro Leu Gly Ser Gln His Arg Lys Asn Ala Ser Ser
145 150 155

<210> 38231
<211> 77
<212> PRT

<213> A.fumigatus

<400> 38231
His Thr Leu Pro Asn Ile Asp Arg Pro Leu Thr His Ile Asn Lys Lys
1 5 10 15
Gly Arg Pro Val Ser Gln Cys Ala His Cys Arg Gly Leu Arg Lys Ser
20 25 30
Arg Thr Thr His Thr Arg Cys Glu Cys Gly Asp Lys Lys Lys Asn Ser
35 40 45
His Lys Asn Asp Leu Asp Pro Asn Ala Val Asp Lys Arg Asp Leu Lys
50 55 60
Arg Glu His Val Gly Asp Gly Thr Leu Val Gln Tyr Phe
65 70 75

<210> 38232
<211> 457
<212> PRT
<213> A.fumigatus

<400> 38232
Asp Phe Thr Glu Asp Ser Arg Pro Lys Cys Gly Cys Thr His Gly Gln
1 5 10 15
Arg Cys Ile Cys Ala Leu Lys Lys Glu Pro His Leu Asp Thr Val Pro
20 25 30
Glu Thr Gly Leu Pro Pro His Pro Pro Ala Ala Pro Ser Glu Gln Pro
35 40 45
Lys Lys Pro Gln Leu Thr Ser Ala Lys Ser Glu Ser Thr Leu Thr Ile
50 55 60
Phe Arg Asp Gly His His Lys Pro Ala His Lys His Asn Asp Met Ala
65 70 75 80
His Lys Cys Gly Leu Pro Tyr Thr Ile Pro Arg Ser His Thr Ile His
85 90 95
Thr Thr Ser Asp Val Pro Arg Arg Ser Val Glu Phe Leu Pro Leu Thr
100 105 110
Glu Pro Thr Phe Leu Glu Lys Ala Phe Thr Ser Leu Val Gln Ser Glu
115 120 125
Thr Gln Ser Asn Gly Ser Gln Gln Arg Leu Val Asn Ser Glu His Gly
130 135 140
Ser Pro Asp His Gly Pro Ala Ala Ala Thr Glu Asp Ile Thr Thr Thr
145 150 155 160
Val Pro Pro Leu Asp Met Ser Ser Phe Phe Ala Gln Ala Gln Pro Ser
165 170 175
Met Gly Gln Ser Ser Gly Gly Ala Ala Glu Ser Ile Ser Thr Pro Leu
180 185 190
Gly Gln Ile Pro Leu Asn Pro Leu Asp Pro Val Met Thr Ser Met Pro
195 200 205
Pro Leu Asp Val Ser Phe Pro Ser Phe Pro Thr Thr Thr Ala Thr Thr
210 215 220
Ser Thr Ser Pro Val Thr Ser Leu Ala Leu Gln Asp Pro Tyr Lys Glu
225 230 235 240
Pro Phe Phe Ala Ser Pro Asp Ser Asp Leu Pro Leu Asn Ser Ala Ala
245 250 255
Phe Ser Ala Pro Pro Val Asp Trp Ser Asn Phe Pro Leu Tyr Ser Ser
260 265 270
Asp Val Pro Thr Ala Thr Ser Thr Gln Ala Pro Ser Tyr Ala Ser Phe
275 280 285

```
Asp Tyr Asn Ser Met Ala Pro Gly Phe Thr Ala Pro Ser Ser Ser Gly
    290                 295                 300
Asp Ile Ser Glu Ala Glu Asp Phe Gly Pro Leu Ser Gly Leu Gly Asn
305                 310                 315                 320
Thr Ser Gly Asp Leu His Asp Met His Ser Ala Ser Asp Gly Ser Asp
                325                 330                 335
Phe Asp His Phe Arg Ile Ser Ser Ala Ser Ser Phe Ile Gly Leu Pro
            340                 345                 350
Gln Ala Gln Leu Leu Ser Ser Asn Asn Leu Glu Ala Ile Asp Ile Asp
        355                 360                 365
Glu Phe Leu Lys Ser Ala Asn Glu Ser Thr Ala Ala Leu Glu His Gln
    370                 375                 380
Leu Gln Ala Ser Met Gly Val Glu Pro Lys Pro Val Pro Ala Gln Asn
385                 390                 395                 400
Thr Phe Val Pro Leu Thr Asp Ala Asp Thr Phe Lys Pro Met Pro Asp
                405                 410                 415
Ser Thr Thr Ser Leu Pro Met Thr Thr Ser Pro Ala Glu Thr Met Trp
            420                 425                 430
Pro Thr Ala Met Phe Asp Ser Ser Ala Pro Ser Met Asp Asp Ser Asn
        435                 440                 445
Gly Asn Phe Tyr Thr Pro Pro Trp Val
    450                 455
```

<210> 38233
<211> 84
<212> PRT
<213> A.fumigatus

<400> 38233

```
Gly Ala Met Tyr Leu Phe Pro Ser Ile Thr Leu Pro Pro Lys Ala Val
1               5                   10                  15
Glu Ala Ala Ala Ala Glu Gly Arg Asn Ala Asp Glu Phe Tyr Cys Leu
            20                  25                  30
Arg Leu Leu Asp Ala Thr Gly Val Cys Val Val Pro Gly Ser Gly Phe
        35                  40                  45
Gly Gln Lys Glu Asn Thr Leu His Phe Arg Thr Thr Phe Leu Ala Pro
    50                  55                  60
Gly Thr Asp Trp Val Glu Arg Ile Val Lys Phe His Ala Glu Phe Met
65                  70                  75                  80
Ala Lys Tyr Lys
```

<210> 38234
<211> 140
<212> PRT
<213> A.fumigatus

<400> 38234

```
Val His Tyr Pro Met Asn Arg Ile Cys Ser Gln Cys Glu Leu Lys Leu
1               5                   10                  15
Leu Tyr Ile Val Leu Thr Gly Cys Ser Thr Ser Tyr Ser Leu Gln Thr
            20                  25                  30
Glu Leu Met Gln Leu Met Met Ser Pro Ser Pro Gly Ile Ser Ala Phe
        35                  40                  45
Pro Asn Ala Asp Gly Asn Leu Leu Asn Trp Thr Ala Thr Ile Ser Gly
    50                  55                  60
```

```
Pro Asn Glu Thr Pro Tyr Glu Gly Leu Thr Phe Lys Leu Ser Phe Ala
65                  70                  75                  80
Phe Pro Asn Asn Tyr Pro Tyr Ser Pro Pro Thr Val Leu Phe Lys Thr
                85                  90                  95
Pro Ile Tyr His Pro Asn Val Asp Phe Ser Gly Arg Ile Cys Leu Asp
            100                 105                 110
Ile Leu Lys Asp Lys Trp Ser Ala Val Tyr Asn Val Gln Ser Val Leu
        115                 120                 125
Leu Ser Leu Gln Ser Leu Leu Gly Glu Pro Asn Lys
    130                 135                 140
```

<210> 38235
<211> 545
<212> PRT
<213> A.fumigatus

<400> 38235

```
Arg Ser Ala Leu Ser Asp Cys Leu Glu Asn Asp Arg Ser Gly Cys Leu
1               5                   10                  15
Cys Leu Val Cys Ser Asp Ala Thr Lys Phe Ser Leu Leu Gly Leu Ser
            20                  25                  30
Asn Ser Thr Asn Ala Leu Pro Ser Ile Lys Lys Ala Cys Pro Ser Asn
        35                  40                  45
Thr Asp Asn Pro Ile Phe Ala Val Lys Phe Ile His Lys Glu Tyr Ala
    50                  55                  60
Ala Arg His Gly Lys Ile Ser Pro Arg Gln Leu Gln Met Glu Ala Thr
65                  70                  75                  80
Val His Lys His Ile Gly Asp His Lys Asn Ile Ile Ser Phe Phe Gln
                85                  90                  95
Thr Gly Glu Asp Asn Val Trp Arg Trp Ile Ala Met Glu Leu Ala Glu
            100                 105                 110
Gly Gly Asp Leu Phe Asp Lys Ile Glu Ala Asp Glu Gly Val Gly Glu
        115                 120                 125
Asp Ile Ala His Val Tyr Phe Ser Gln Leu Ile Ser Ala Val Gly Tyr
    130                 135                 140
Met His Ser Lys Gly Val Ser His Arg Asp Ile Lys Pro Glu Asn Met
145                 150                 155                 160
Leu Leu Thr Ala Asp Gly Asn Leu Lys Ile Ala Asp Phe Gly Leu Ala
                165                 170                 175
Thr Leu Phe Glu Tyr Lys Gly Val Thr Lys Leu Ser Thr Thr Phe Cys
            180                 185                 190
Gly Ser Pro Pro Tyr Ile Ala Pro Glu Val Ile Ser Cys Ser Asn Arg
        195                 200                 205
Arg Gln Val Lys Gly Ala Gly Tyr Arg Pro Asp Leu Val Asp Ile Trp
    210                 215                 220
Ser Cys Gly Ile Val Leu Phe Val Leu Leu Ala Gly Asn Thr Pro Trp
225                 230                 235                 240
Asp Ser Pro Thr Asp Ser Ser Tyr Glu Phe His Glu Tyr Leu Ala Thr
                245                 250                 255
Asn Ala Arg Thr Ser Asp Glu Leu Trp Gln Lys Leu Pro Ala Ala Thr
            260                 265                 270
Leu Ser Leu Leu Arg Gly Met Leu Asn Val Asp Pro Ser Asn Arg Phe
        275                 280                 285
Ser Leu Glu Asp Val Arg Arg His Pro Trp Phe Thr Arg Gln Asn Arg
    290                 295                 300
Tyr Leu Ala Leu Asp Gly Lys Leu Arg Asp Pro Ile Asn Leu Ala Thr
```

```
305                 310                 315                 320
Thr Met Phe Glu Ser Leu His Ile Asp Phe Ser Gln Asp Pro Leu Ser
                325                 330                 335
Arg Pro His Arg Thr Ser Ser Phe Asp Pro Glu Gln Met Arg Phe Asp
            340                 345                 350
Asp Gly Asp Leu Asn Thr Glu Pro Arg Ile Ser Ser Thr Gln Pro Glu
        355                 360                 365
Met Pro Arg Ala Glu Met Leu Val Asp Trp Asp Thr Pro His Thr Ala
    370                 375                 380
Asp Val Phe Ser Ser Thr Gln Pro Thr Gly Arg Pro Ser Ser Ser Asp
385                 390                 395                 400
Asp Met Leu Leu Ala Ser Tyr Leu Glu Asp Glu Pro Ser Met Ser Gln
                405                 410                 415
Phe Ser Pro His Pro Ser Val Pro Leu Ser Arg Thr Gln Lys Ala Gln
            420                 425                 430
Arg Phe Arg Asp Ile Val Pro Ala Arg Pro Met Thr Arg Phe Phe Ser
        435                 440                 445
Thr Trp Glu Leu Lys Ile Leu Val Pro Leu Val Cys Glu Ala Leu His
    450                 455                 460
Arg Leu Gly Val Pro Val Pro Ser Val Pro Ala Val Ser Pro Gly Asp
465                 470                 475                 480
Thr Ser Ala Thr Ile Arg Val Val Thr Arg Asp Gly Arg Met Cys Thr
                485                 490                 495
Leu Gln Gly Lys Val Val Leu Glu Cys Val Ser Asp Gly Leu Phe Glu
            500                 505                 510
Ile Glu Phe Met Lys Val Lys Gly Asp Pro Leu Glu Trp Arg Arg Phe
        515                 520                 525
Phe Lys Lys Val Ala Val Leu Cys Lys Asp Ala Val Tyr Ile Pro Asp
    530                 535                 540
Asn
545
```

<210> 38236
<211> 142
<212> PRT
<213> A.fumigatus

<400> 38236

```
Ile Asn Val Asp Asn Arg Ala Gly Val Tyr Ser Ser Ser Lys Ala Ala
1               5                   10                  15
Val Met Gln Ile Ser Glu Thr Leu Arg Leu Glu Leu Ala Pro Leu Gly
            20                  25                  30
Val Gly Val Val Cys Leu Met Val Gly Thr Val Ser Thr Ser Phe His
        35                  40                  45
Glu Asn Glu Pro Arg Val Val Leu Pro Ala Gly Ser Arg Tyr Ala Ala
    50                  55                  60
Ile Arg Asp Val Ile Ala Gln Trp Ala Thr Gly Gln Ser Gly Pro Lys
65                  70                  75                  80
Gly Cys Ser Val Glu Glu Phe Ala Glu Ser Ile Val Asp Asp Val Leu
                85                  90                  95
Gly Ala Ser Gly Ser Gly Ser Gly Gly Leu Val Trp Lys Gly Pro Asn
            100                 105                 110
Ser Ala Ala Val Arg Ile Leu Ser Arg Trp Cys Pro Val Trp Leu Leu
        115                 120                 125
Val Ser His Trp Val Thr Phe Pro Arg Leu Asn Val Ser Arg
    130                 135                 140
```

<210> 38237
<211> 105
<212> PRT
<213> A.fumigatus

<400> 38237
Gly Asn Asp Asn Arg Cys Glu Tyr Cys Met Tyr Val Cys Met Ile His
1 5 10 15
Ser His Ala Ser Gly Asn Thr Phe Asp Leu Phe Ser Gln Leu Leu Pro
20 25 30
Arg Asp Gly Gln Thr Gly Pro Ser Pro Ala Arg Leu Arg Leu Pro Ser
35 40 45
Cys Pro Val Gln Ser Val Asn Leu Ala Pro Arg Val Val Phe Asp Phe
50 55 60
Leu Arg Tyr Leu Met Met Ser Ile Arg Gln Thr Gly Phe Ser Ile Asp
65 70 75 80
Tyr Ser Glu Leu Pro Thr Ala Thr Ile Lys Gln Val Glu Pro Ala Pro
85 90 95
Tyr Phe Ser Tyr Gly Glu Ser Pro Thr
100 105

<210> 38238
<211> 182
<212> PRT
<213> A.fumigatus

<400> 38238
Ile Val Gln Tyr Thr Thr Ala Met Pro Thr Thr Lys Ser Ile Leu Ile
1 5 10 15
Thr Gly Cys Ser Ala Asn Ser Ile Gly Ala Ala Leu Ala Leu Ser Leu
20 25 30
Ala Lys Arg Gly His His Val Phe Ala Thr Ala Arg Ser Pro Ala Lys
35 40 45
Ile Pro Ser Pro Leu Thr Thr Leu Ser Asn Val Thr Leu Leu Gln Leu
50 55 60
Asp Val Thr Ser Pro Ala Ser Val Ala Ala Ala Val Gln Ala Val Gln
65 70 75 80
Asp His Gly His Gly Leu Asp Val Leu Val Asn Asn Ala Gly Ala Gly
85 90 95
Tyr Thr Val Pro Leu Leu Asp Ala Asp Leu Glu His Ala Lys Arg Val
100 105 110
Tyr Glu Thr Asn Val Trp Gly Val Val Arg Met Ile Gln Gly Phe Ala
115 120 125
Asp Leu Leu Val Ala Arg Arg Gly Arg Val Val Asn Leu Ser Ser Val
130 135 140
Gly Ala Val Val Asn Thr Pro Trp Ile Gly Ile Cys Phe Pro Leu Leu
145 150 155 160
Ser Ile Phe Phe Phe Phe Leu Leu Ser His Leu Arg Leu Thr Ala Ala
165 170 175
Phe Gly Trp Ile Ile Asp
180

<210> 38239
<211> 192
<212> PRT

<213> A.fumigatus

<400> 38239
Asp Val Pro Gly Thr Arg Gly Trp Phe Ala Thr Asn Gly Lys Arg Tyr
1 5 10 15
Ala Phe Leu Arg Pro Glu Ile Thr Pro Arg Thr Val Thr Thr Ile Gly
20 25 30
Arg Gln Leu Ser Ala Val Thr Thr His Ala Ser Thr Val Ala Met Leu
35 40 45
Asn Ala Thr Tyr Arg Gln Trp Arg Ala Ser Leu Ala Ala Ile Glu Asp
50 55 60
Val Pro Gly Ile Val Trp Ser Val Ser Leu Glu Pro Leu Pro Pro Ala
65 70 75 80
Ile Tyr Ala Arg Ala Ser Thr Thr Asn Cys Leu Gly Leu Ser Gln Thr
85 90 95
Ser Gly Ala Leu Val Val Thr Leu Leu Asn Ala Thr Trp Glu Asp Glu
100 105 110
Ala Asp Asp Ala Lys Val Glu Gln Ala Ala Arg Ala Leu Val Asp Arg
115 120 125
Ile Glu Asp Asp Ala Arg Gln Leu Asp Ala Tyr Glu Pro Tyr Val Tyr
130 135 140
Leu Asn Tyr Ala Ala Ala Trp Gln Asp Pro Ile Ala Ser Tyr Gly Lys
145 150 155 160
Ala Ser Val Glu Lys Leu Gln Arg Val Ser Gln Ala Val Asp Pro Lys
165 170 175
Gly Val Phe Lys Asn Gln Met Pro Gly Gly Phe Lys Leu Pro Ser Gln
180 185 190

<210> 38240
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38240
Leu Thr Asn Ser Gln Thr Gly His Gln Arg Asp Lys Ile Leu Thr Ala
1 5 10 15
Ala Leu Phe Gly Pro Phe Gln Thr Asn Pro Pro Leu Pro Leu Pro Leu
20 25 30
Ala Pro Asn Thr Ser Ser Thr Ile Asp Ser Ala Asn Ser Ser Thr Glu
35 40 45
His Pro Phe Gly Pro Asp Trp Pro Val Ala His Cys Ala Met Thr Ser
50 55 60
Leu Met Ala Ala
65

<210> 38241
<211> 179
<212> PRT
<213> A.fumigatus

<400> 38241
Gln Glu Gly Lys Ala Asp Thr Asn Pro Arg Arg Ile His Tyr Ser Pro
1 5 10 15
His Thr Ala Gln Ile Asn Tyr Pro Pro Pro Thr Gly Asn Gln Gln Val
20 25 30
Arg Glu Ser Leu Tyr His Pro Tyr His Thr Pro Tyr Ile Arg Leu Val

```
        35                  40                  45
Asp Ser Leu Arg Val Phe Gln Val Arg Ile Gln Gln Gly Asp Gly Ile
    50                  55                  60
Pro Arg Ser Arg Val Ile Asp Gln His Val Gln Pro Val Ala Val Ile
65                  70                  75                  80
Leu His Gly Leu Asp Gly Gly Ser Asp Arg Gly Arg Arg Cys His Val
                85                  90                  95
Glu Leu Gln Glu Gly Asp Ile Gly Glu Gly Gly Gln Trp Gly Gly Asp
            100                 105                 110
Leu Ser Gly Gly Ala Gly Gly Gly Glu Asp Met Val Ala Ser Phe Gly
        115                 120                 125
Glu Gly Glu Gly Glu Ser Cys Ala Asp Ala Val Gly Arg Ala Ala Gly
    130                 135                 140
Tyr Glu Asp Gly Leu Gly Cys Gly His Cys Ser Arg Ile Leu Asp Asp
145                 150                 155                 160
Leu Val Ala Met Val Tyr Leu Ser Val Cys Leu Arg Leu Arg Leu Arg
                165                 170                 175
Leu Thr Met
```

<210> 38242
<211> 64
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (21)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38242

```
Ala Gly Leu His Ala Asp Glu Asp Arg Thr Leu Gly Ile Cys Gly Val
1               5                   10                  15
Arg Gly Gly Glu Xaa Leu Asn Ala Lys Asn Lys Cys Asp Asp Ala Gly
            20                  25                  30
Asp Asp Ser Pro Ala Pro Thr Gln Cys Leu Phe Ala Phe Leu Val Ser
        35                  40                  45
Gly Gly Phe Thr Tyr Ile Met Ala Val Glu Lys Met Ile Lys Ser Phe
    50                  55                  60
```

<210> 38243
<211> 169
<212> PRT
<213> A.fumigatus

<400> 38243

```
Leu Arg Gly Leu Leu Trp Pro Trp Glu Thr Cys Leu Gly Gly Arg Asn
1               5                   10                  15
Gly Gln Cys Asp Arg Arg Asp Ala Gly Met Ala Lys Gln Thr Arg Ala
            20                  25                  30
Ile Asp Glu Thr Asp Gly Leu Ile Ile Gln Gln Leu Leu Leu Ala Tyr
        35                  40                  45
Val Leu Ile Tyr Val Val Ala Ile Pro Leu Ile Lys Leu Ser Ile Ile
    50                  55                  60
Leu Phe Tyr Arg Arg Ile Phe Gly Met Asn Trp Val Met Trp Ile Cys
65                  70                  75                  80
```

```
Val Leu Leu Thr Val Gly Tyr Trp Phe Ser Cys Thr Val Ala Phe Leu
                85                  90                  95
Val Cys Cys Arg Pro Leu Ser Tyr Tyr Trp Thr Gln Tyr Arg Asp Pro
            100                 105                 110
Gly Gly Gly Lys Tyr Ile Phe Asn Leu Tyr Pro Phe Tyr Ile Gly Asn
        115                 120                 125
Ala Ala Ala Asn Val Ala Thr Asp Gly Ile Ile Leu Met Val Pro Ile
    130                 135                 140
Pro Leu Val Trp Lys Leu Gln Met Arg Thr Ala Gln Lys Val Leu Val
145                 150                 155                 160
Ser Ser Ile Phe Leu Leu Gly Gly Leu
                165
```

<210> 38244
<211> 71
<212> PRT
<213> A.fumigatus

<400> 38244

```
Ser Glu Ser Ser Gln Asn His His Gln Asp Leu Thr Val Leu Leu Thr
1               5                   10                  15
Leu Phe Glu Phe Ser Ile Lys Gly Gln Lys Met Phe Ser Thr Asn Pro
            20                  25                  30
Ala Asp Val Ser Ala Arg Leu Ser Leu Glu Gly Leu Arg Leu Glu Pro
        35                  40                  45
Ala Ala Lys Tyr Ser Leu Leu Pro Tyr Pro Ile Leu Gln Arg Tyr Leu
    50                  55                  60
Ala Asp Thr Ser Pro Asp Pro
65                  70
```

<210> 38245
<211> 113
<212> PRT
<213> A.fumigatus

<400> 38245

```
Tyr His Leu Asp Ser Tyr Val Phe Pro Phe Glu Pro Asn Pro Asn Trp
1               5                   10                  15
Ser Lys Phe Tyr Val Ser Gly Pro Glu Ile Gln Asp Tyr Ile Val Lys
            20                  25                  30
Thr Thr Asp Lys Tyr Gly Leu Arg Asp Lys Ile Thr Phe Asn Thr Lys
        35                  40                  45
Leu Leu Gln Ala Ala Trp Asp Glu Gly Asp Gly Lys Trp Lys Leu Thr
    50                  55                  60
Leu Glu Gln Gly Gly Ser Leu Ile Glu Asp Val Ala Asp Ile Val Val
65                  70                  75                  80
Asp Gly Ser Gly Ile Leu Lys Tyr Ala Thr Ile Thr Ser Gly Arg His
                85                  90                  95
Val Arg Asp Leu Leu Gly Thr Val Asn Gly Asn Gly Pro Met Ser Arg
            100                 105                 110
Asp
```

<210> 38246
<211> 91
<212> PRT

<213> A.fumigatus

<400> 38246
Arg His Arg Asp Pro Asp Tyr Asp Trp Thr Gly Lys Gly Ile Ala Val
1 5 10 15
Ile Gly Asn Gly Ser Ser Ala Leu Gln Ile Val Pro Glu Leu Gln Pro
20 25 30
Lys Ala Ala Arg Ile Val Asn Tyr Ile Arg Arg Ala Thr Trp Val Ser
35 40 45
Thr Asn Leu Cys Gly Asn Leu Thr Lys Asp Gly Met Gly Thr Asn Phe
50 55 60
Glu Phe Thr Lys Glu Asp Lys Gln Arg Phe Arg Asp Asp Pro Glu Glu
65 70 75 80
Phe Leu Lys Tyr Arg Lys Val Val Glu Ala Ser
85 90

<210> 38247
<211> 157
<212> PRT
<213> A.fumigatus

<400> 38247
Tyr Pro Pro Arg Val Asn Ser Val Phe Arg Leu Met Leu Ser Gly Ser
1 5 10 15
Glu Glu Asn Arg Phe Leu Phe Lys Leu Val Asp Ser Val Met Arg Ala
20 25 30
Arg Leu Ser Lys Asp Pro Glu Leu Ala Asp Lys Leu Ile Pro Lys Tyr
35 40 45
Glu Ile Gly Cys Arg Arg Leu Ser Pro Gly Asp Gly Tyr Leu Glu Ala
50 55 60
Leu Gln Ala Asp Asn Ala Glu Ile Arg Phe Asp Ser Ile Gln Arg Ile
65 70 75 80
Thr Glu Thr Gly Ile Gln Thr Asp Lys Gly Ile Glu Glu Phe Asp Leu
85 90 95
Ile Val Cys Ala Thr Gly Phe Asn Ala Ser Phe Ile Pro Ala Trp Asp
100 105 110
Leu Val Gly Arg Asp Gly Arg Arg Leu Asp Glu Glu Trp Lys Glu Lys
115 120 125
Pro Glu Ala Tyr Phe Ser Val Cys Ala Ala Gly Ile Pro Asn Tyr Phe
130 135 140
Met Phe Ala Gly Pro Asn Cys Pro Asp Tyr Gly Ile Tyr
145 150 155

<210> 38248
<211> 103
<212> PRT
<213> A.fumigatus

<400> 38248
Lys Val Thr Thr Thr Ser Lys Met Pro Ser Lys Glu Ser Phe Ser Ala
1 5 10 15
Ser Asn Gly His Leu Gln Asp Gly Trp Ser Val Asp Pro Ser Gln Phe
20 25 30
Ala Phe Thr Pro Arg Lys Leu Arg Val Val Cys Ile Gly Ala Gly Phe
35 40 45
Ser Gly Leu Val Leu Ala Tyr Lys Leu Lys His Glu Arg Pro Ile Asp

```
    50                  55                  60
Phe Val Asp Tyr Thr Ile Tyr Glu Lys Asn Pro Glu Val Gly Gly Thr
65                  70                  75                  80
Trp Tyr Glu Asn Val Tyr Pro Gly Val Gly Trp Phe Val Leu Ser Phe
                85                  90                  95
Leu Tyr Val Gly Ser Ile Arg
            100
```

<210> 38249
<211> 67
<212> PRT
<213> A.fumigatus

<400> 38249

```
Leu Arg His Leu Leu Thr Tyr Ser Arg Ser Val Val Val Lys Asp Ser
1               5                   10                  15
Val Val Ser Asp Tyr Asn Ile Tyr Ala Gln Glu Asn Leu Lys Arg Ala
            20                  25                  30
Val Trp Ser Lys Gly Cys His Ala Trp Tyr Ser Lys Lys Thr Thr Gly
        35                  40                  45
Glu Gly Val Thr Val Thr Ala Met Tyr Pro Gly Ser Val Leu His Tyr
    50                  55                  60
Lys Gly Glu
65
```

<210> 38250
<211> 98
<212> PRT
<213> A.fumigatus

<400> 38250

```
Ser Gln Lys Tyr Ser Ala Ser His Tyr Gln His Glu Gln His Glu Gln
1               5                   10                  15
His Glu Gln Gln Val Leu Asn Asn Leu Arg Arg Pro Arg Asp Thr Pro
            20                  25                  30
Leu Lys Pro Pro Pro Ser Thr Pro Thr Thr Ser Pro Pro Lys His His
        35                  40                  45
Arg Leu Pro Pro Tyr Ala Ala Ser Pro Glu Pro Pro Pro Ala His Lys
    50                  55                  60
Thr Pro Arg Ser Pro Thr Pro Leu Ser Ala Pro Ser Pro Pro Lys Ala
65                  70                  75                  80
Gly Tyr Thr His Pro Pro Pro Ala Ser Ser Thr Asp Gln Tyr Ser Ser
                85                  90                  95
His Arg
```

<210> 38251
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38251

```
Leu Lys Met Ala Asn Ile Arg Asn Ile Arg His Pro Met Phe Ser Ile
1               5                   10                  15
Ala Cys Gly Val Thr Cys Asp Ile Ile Lys Leu Asn Ser His Cys Asp
            20                  25                  30
```

Ala Ala Pro Thr Val Thr Pro Thr Ser Arg Val Arg Leu Glu Lys Ile
35 40 45
Ser Pro Thr Tyr Ser His Gly Ser Gly Pro Gln Asp Met Leu Lys Leu
50 55 60
Asn Ala Ser Ala
65

<210> 38252
<211> 304
<212> PRT
<213> A.fumigatus

<400> 38252
Asp Leu His Gly Leu Pro Gln Leu Ala Lys His Pro Asn Asn Val Pro
1 5 10 15
Gly Thr Ala Gly Leu Gly Ala Ala Thr Val Leu His Leu Ala Lys His
20 25 30
Thr His Pro Pro Ala His Ile Tyr Ile Ser Gly Arg Asn Ala Gln Arg
35 40 45
Ala Asp Asp Leu Ile Lys Gln Val Ser Ala Ser Asn Ser Ala Thr Arg
50 55 60
Leu Ser Phe Val Pro Cys Asp Leu Ala Ser Leu Ala Ser Val Asn Glu
65 70 75 80
Ala Ala Glu Ala Val Leu Arg Arg Ser Ser Arg Leu Asp Ile Leu Met
85 90 95
Cys Asn Ala Gly Ile Met Ala Gln Pro Pro Ser Leu Thr Lys Asp Gly
100 105 110
Tyr Glu Val Gln Phe Gly Thr Asn His Leu Gly His Ala Leu Leu Ile
115 120 125
Arg Arg Cys Leu Pro Leu Leu Gln Arg Thr Ala Glu Glu Ser Ser Asp
130 135 140
Ala Arg Ile Val Ile Leu Ser Ser Leu Ala Phe Arg Gly His Pro Tyr
145 150 155 160
Gly Gly Ile Val Phe Ser Asp Leu Lys Thr Val Gln His Phe Thr Ala
165 170 175
Cys Ala Leu Gly Pro Trp Ile Arg Tyr Gly Gln Ser Lys Leu Ala Asn
180 185 190
Leu Leu Tyr Ala Arg Glu Leu Ala Arg Arg Tyr Pro Ala Ile Thr Cys
195 200 205
Val Ser Ile His Pro Gly Val Val Ser Thr Gly Leu Val Glu Asn Gln
210 215 220
Thr Arg Gly Asn Arg Ala Phe Ile Tyr Val Thr Asn Ile Gly Gln Leu
225 230 235 240
Met Lys Pro Glu Glu Gly Ala Tyr Asn Gln Leu Trp Ala Ala Thr Ala
245 250 255
Arg Lys Glu Glu Leu Val Asn Gly Gly Phe Tyr Glu Pro Val Gly Val
260 265 270
Leu Gly Lys Leu His Arg Ala Ala Gly Asp Asp Ala Leu Ala Glu Lys
275 280 285
Leu Trp Glu Trp Thr Glu Gly Ala Leu Gly Glu Tyr Leu Glu Val Val
290 295 300

<210> 38253
<211> 89
<212> PRT
<213> A.fumigatus

<400> 38253
Val Asp Ile Ala Ala Phe Met Gln Leu Val Ser Gln Thr Thr Arg Lys
1 5 10 15
Ala Thr Gly Tyr Glu Thr Leu Arg Lys Met Gly Lys Arg Leu Gly Leu
20 25 30
Leu Arg Ala Ile Tyr Leu Val Ser Ala Ser Cys Met Gly Ser Phe Ala
35 40 45
Phe Ala Phe Asp Thr Gly Val Ile Ser Ala Leu Gln Ser Leu Val Pro
50 55 60
Ile Arg Glu Glu Lys Lys Glu Lys Lys Lys Glu Lys Arg Lys Lys Lys
65 70 75 80
Lys Glu Lys Lys Arg Lys Ser Ala Ser
85

<210> 38254
<211> 446
<212> PRT
<213> A.fumigatus

<400> 38254
Pro Thr Gly Gly Val Leu Thr Leu Glu Ser Phe Gln Arg Asp Phe Arg
1 5 10 15
Tyr Thr Gln Ala Gln Lys Thr Thr Val Asn Ser Asn Ala Val Ser Ile
20 25 30
Leu Gln Ala Gly Ala Phe Phe Gly Cys Phe Phe Thr Thr Pro Val Ala
35 40 45
Ser Arg Leu Gly Arg Arg Thr Gly Leu Ile Ile Ser Ser Leu Val Phe
50 55 60
Thr Leu Gly Thr Ile Leu Gln Val Ile Asn Thr His Thr Leu Gly Thr
65 70 75 80
Phe Tyr Ala Gly Arg Val Ile Ala Gly Val Gly Ile Gly Ala Ala Thr
85 90 95
Val Leu Ile Pro Met Tyr Ala Ala Glu Met Ser Pro Lys Glu Val Arg
100 105 110
Gly Arg Leu Gly Ala Cys Phe Gln Trp Phe Phe Ala Cys Gly Val Met
115 120 125
Val Ala Tyr Trp Val Thr Tyr Ala Val Ser Lys Asp Gln Pro Ser Ala
130 135 140
Thr Lys Gln Trp Gln Ile Ala Leu Gly Leu Gln Leu Leu Pro Ser Thr
145 150 155 160
Leu Leu Leu Ala Gly Met Cys Thr Val Lys Glu Ser Ala Arg Trp Leu
165 170 175
Ala Ala Gln Gly Arg Thr Asp Ala Ala Trp Asp Ser Leu Arg Trp Val
180 185 190
Arg Gly Gly Glu Glu Thr Ala Asp Leu Arg Gln Glu Phe Asp Glu Ile
195 200 205
Leu Thr Gly Leu Gln Glu Glu Ala Arg Val Arg Glu Asn Trp Thr Trp
210 215 220
Arg Glu Leu Leu Leu Pro Ala Asn Arg Tyr Arg Ile Phe Ile Ala Val
225 230 235 240
Thr Ile Gln Leu Cys Ala Gln Leu Thr Gly Asn Thr Ser Leu Ala Tyr
245 250 255
Tyr Ala Thr Gln Ile Phe Ala Ala Val Gly Ala Gly Thr Ser Ala Lys
260 265 270
Leu Val Thr Gly Phe Phe Gly Val Val Lys Val Val Gly Val Ser Val

```
        275                 280                 285
Phe Gln Leu Leu Val Met Asp Arg Ile Gly Arg Arg Val Pro Phe Met
    290                 295                 300
Val Gly Ala Gly Ala Met Gly Ser Phe Met Leu Ile Ile Ala Cys Val
305                 310                 315                 320
Leu Ala Thr His Pro Thr Lys Ala Ser Pro Gly Gly Ala Glu Thr Gly
                325                 330                 335
Ala Thr Thr His Ala Gly Ile Ala Met Ile Ile Met Thr Tyr Ala Glu
            340                 345                 350
Ala Phe Ser Phe Asn Met Ser Trp Gly Pro Leu Pro Trp Leu Tyr Val
        355                 360                 365
Gly Glu Ile Phe Ser Ser Arg Thr Arg Glu Val Gly Val Thr Val Gly
    370                 375                 380
Ala Ala Ser Gln Trp Leu Phe Asn Phe Met Met Ser Gln Val Thr Pro
385                 390                 395                 400
His Ala Ile Glu Asn Ile Gly Trp Arg Met Phe Leu Met Phe Ala Ile
                405                 410                 415
Phe Asn Tyr Ser Ile Ile Gly Tyr Ser Trp Phe Phe Leu Arg Glu Val
            420                 425                 430
Ser Phe Pro Ser Val Leu Val Leu Val Gly His Tyr Asp Ser
        435                 440                 445
```

<210> 38255
<211> 136
<212> PRT
<213> A.fumigatus

<400> 38255

```
Leu Gly Pro Ser Phe His Tyr Gln Ala Asp Lys Ile Ser Leu Tyr Cys
1               5                   10                  15
Ser Ala Ile Thr Gln Leu Ile Gln Gln Ala Leu Leu Ser Ser Arg Val
            20                  25                  30
Trp Glu His Gly Cys Lys Met Val Val Ser His Lys Thr Glu Lys Ser
        35                  40                  45
Gly Pro Ala Asn Val Leu Ala Ala Asp Asp Ala Val Pro Gln Ala Arg
    50                  55                  60
Gly Gln Gln Arg Glu Leu Pro Gln Gln Phe Ser Ala Ser Ser Ala Leu
65                  70                  75                  80
Ser Phe Ala Tyr Val Ile Thr Asn Ser Trp Val Gly Tyr Ser Gly Thr
                85                  90                  95
Phe Pro Thr Ala Leu Met Ala Gly Gly Gly Pro Ala Val Phe Tyr Gly
            100                 105                 110
Val Ile Val Ala Gly Ile Val Cys Phe Ile Ile Ser Thr Thr Cys Val
        115                 120                 125
Pro Gly Leu Ser Val Val Ile Arg
    130                 135
```

<210> 38256
<211> 65
<212> PRT
<213> A.fumigatus

<400> 38256

```
Phe Asp Asn Ala Val Ser Ala Leu Gly Leu Ala Glu Leu Ala Ser Ala
1               5                   10                  15
Phe Pro Ser Ser Gly Gly Gln Tyr His Phe Thr Tyr Met Val Ser Ser
```

```
            20                  25                  30
Pro Lys Thr Arg Thr Pro Cys Ala Phe Val Cys Gly Trp Leu Ser Ser
        35                  40                  45
Leu Ala Trp Cys Leu Ala Thr Val Ser Gly Thr Ile Phe Ile Gly Met
    50                  55                  60
Ser
65
```

<210> 38257
<211> 302
<212> PRT
<213> A.fumigatus

<400> 38257

```
Glu Phe Ser Glu Gln Ala Arg Leu Thr Met Arg Ser Ser Ser Asp Ser
1               5                   10                  15
Cys Ala Arg Val Val Pro Lys Arg Gly Leu Leu Ser Gln Ala Val Ala
            20                  25                  30
Asp Ile Pro Arg Leu Ser Arg Ser His Asn Pro Gly Asn Gly Asn Gly
        35                  40                  45
Leu Ser Ser Arg Ser Leu Val Ala Ala Ile Ala Gly Gly His Val Leu
    50                  55                  60
Glu Gln His Ile Cys Leu Cys Gly Val Ser Cys Arg Gly Ser Arg Asp
65                  70                  75                  80
Glu Gln Lys Gln Ala Val Cys Ala Arg Cys Phe His Pro Val Pro Glu
                85                  90                  95
Arg Asp Gly Met Ala Arg Arg Leu Val Val Pro His Arg Thr Arg Asp
            100                 105                 110
Leu Tyr Val His Val Leu Cys Tyr Arg Arg Ser Asp Pro Tyr Arg Arg
        115                 120                 125
Gly Met Ser His Asp Phe Pro Met Ala Ala Pro Arg Lys Lys Thr Asp
    130                 135                 140
Ser Ser Gln Glu Val Pro Glu Pro Gly Arg Asn Ile Pro Lys Val Met
145                 150                 155                 160
Cys Leu Thr Pro Val Ile Gly Ile Ala Thr Thr Leu Pro Phe Val Val
                165                 170                 175
Ala Thr Leu Phe Ala Thr Val Asp Leu Gly Glu Val Val Arg Ser Glu
            180                 185                 190
Leu Pro Ile Leu Thr Leu Tyr His Gln Ala Thr Gly Ser Lys Asp Val
        195                 200                 205
Thr Ala Ile Phe Thr Ile Trp Leu Ile Phe Asn Tyr Phe Gly Gly Thr
    210                 215                 220
Val Thr Gly Leu Ala Ala Ser Gly Arg Met Ala Trp Ala Phe Ala Arg
225                 230                 235                 240
Asp Asn Gly Leu Pro Phe Ser Gly Thr Leu Ala Thr Val His Pro Arg
                245                 250                 255
Phe Gln Thr Pro Val Ala Ser Thr Val Ala Cys Ala Val Leu Met Ala
            260                 265                 270
Leu Tyr Gly Leu Ile Tyr Ile Ala Ser Ser Thr Ala Tyr Ser Ser Ile
        275                 280                 285
Val Ser Met Val Phe Thr Thr Gly Val Glu Gly Ser Glu Leu
    290                 295                 300
```

<210> 38258
<211> 165
<212> PRT

<213> A.fumigatus

<400> 38258

```
Val Arg Ser Arg Ala Phe Tyr Ile Leu Pro Ser Ser Pro Ser Cys Ala
1               5                  10                  15
Glu Asp Leu Ser Ala Gly Arg Ser Arg Ala Phe Phe Phe Val Leu Ser
            20                  25                  30
Ser Trp Glu Arg Leu Ser Gly Thr Trp Asn Arg Leu Arg Thr Val Ala
        35                  40                  45
Ser Thr His Gly Ile Ser Tyr Tyr Glu Asp Ser Pro Asn Glu Tyr Thr
    50                  55                  60
Phe Asp Ser Ala Asn Thr Tyr Leu Thr Gly Leu Gly Leu Gly Leu Leu
65                  70                  75                  80
Ala Ser Thr Ala Val Ser Leu Ser Pro Thr Leu Ala Asp Leu Pro Leu
                85                  90                  95
Ala Gly Ala Glu Val Val Arg Val Ala Phe Arg Leu Gly Val Leu Val
            100                 105                 110
Ala Asp Val Ser Gln Asn Leu Gln Pro Ala Asp Ala Thr Gly Glu Arg
        115                 120                 125
Asp Ser Trp Ala Tyr Val Ile Pro Asn Val Ala Pro Lys Glu Ala Glu
    130                 135                 140
Glu Glu Leu Ala Val Ile His Thr Arg Lys Val Ser Ser Thr Gly Val
145                 150                 155                 160
Leu Pro Tyr Thr Ser
                165
```

<210> 38259
<211> 233
<212> PRT
<213> A.fumigatus

<400> 38259

```
Ser Arg Leu Pro Trp Gln Ala Pro Arg Ser Ser Cys Leu Met Phe Cys
1               5                  10                  15
Ser Leu Thr Gly Met Val Ile Ile Leu Gly Ala Phe Arg Thr Phe Ser
            20                  25                  30
Gly Cys Ile Pro Thr Cys Pro Ile Arg Ser Thr Ser Ile Pro Leu Ala
        35                  40                  45
Arg Ala Gln Lys Pro Ile Ser Asp Gly Gln Thr Phe Arg Val Glu Gly
    50                  55                  60
Ala Thr Val Arg Ala Val His Thr Pro Gly His Ser His Asp His Met
65                  70                  75                  80
Cys Phe Ile Leu Glu Glu Glu Asn Ala Met Phe Thr Gly Asp Asn Val
                85                  90                  95
Leu Gly His Gly Ser Ser Ala Val Glu Val Leu Ser Thr Trp Met Ser
            100                 105                 110
Ser Leu Arg Met Met Gln Ser Leu Arg Cys Ala Val Gly Tyr Pro Ala
        115                 120                 125
His Gly Ala Val Ile Arg Asp Leu Pro Ser Lys Leu Asp Leu Glu Leu
    130                 135                 140
Thr Gln Lys Ala Arg Arg Glu Asp Arg Val Val Glu Thr Leu Lys Gln
145                 150                 155                 160
Met Lys Thr Glu Asp Gln Arg Asn Gly Ala Arg Gly Lys Gly Ser Val
                165                 170                 175
Thr Val Gln Gln Leu Val Thr Ala Met His Gly His Asp Leu Asp Glu
            180                 185                 190
```

```
Gln Val Arg Thr Met Ala Leu Glu Pro Phe Val Asp Glu Val Leu Arg
        195                 200                 205
Lys Leu Ala Gln Asp Asp Arg Val Ala Phe Glu Val Arg Gly Gly Gln
    210                 215                 220
Lys Lys Trp Phe Ala Ile Glu Tyr Thr
225                 230
```

<210> 38260
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38260

```
Ser Ala Ala Arg Ile Leu Arg Tyr Leu Cys Ser Ile Gly Ile Phe Lys
1               5                   10                  15
Gln Thr Gly Pro Asp Thr Phe Ala Asn Asn Arg Ile Ser Ala Ala Leu
            20                  25                  30
Val Ser Asn Glu Pro Leu Arg Ala Tyr Val Gln Leu Val Asn Ser Glu
        35                  40                  45
Gly Phe Thr Ala Ser Val Phe Thr Asp Arg Gly Trp Lys Asp Thr Arg
    50                  55                  60
Ser Arg Ala Glu
65
```

<210> 38261
<211> 155
<212> PRT
<213> A.fumigatus

<400> 38261

```
Arg Thr Arg Ile Lys His His Lys Met Glu Arg Gln Pro Lys Ser Leu
1               5                   10                  15
Cys Asp Ala Thr Gln Leu Leu Glu Thr Ala Asn Ile Ile Ser Asp Thr
            20                  25                  30
Val Gln Thr Ile Ile Ala Glu Trp Ser Ala Glu Ala Lys Ala Pro Gln
        35                  40                  45
Gly Ser Gly Lys Gln Asn Ala Pro Met Leu Pro Ser Arg Glu Leu Phe
    50                  55                  60
Asp Ala Gln Arg Thr Ile Leu Ala Ala Ala Gly Lys Leu Thr Glu Leu
65                  70                  75                  80
Val Ser Asp Pro Ser Ala Arg Ile Leu Glu Val Ala Thr Gln Phe Gln
                85                  90                  95
Glu Ser Arg Ser Leu Tyr Ile Ala Ala Glu Arg Arg Ile Pro Asp Leu
            100                 105                 110
Leu Ala Ala Gly Asp Glu Gly Gly Val His Ile Asp Gln Ile Ser Gln
        115                 120                 125
Lys Ala Lys Ile Glu Pro Arg Lys Leu Gly Glu Ser Ala Pro Glu Met
    130                 135                 140
Arg Val Thr Ser Lys Val Ser Leu Ser Trp Arg
145                 150                 155
```

<210> 38262
<211> 273
<212> PRT
<213> A.fumigatus

<400> 38262
Val Phe Ala Tyr Gly His Val Tyr Met Leu Ala Leu His Gln Thr Gln
1 5 10 15
Arg Gly Val Pro Cys Ser Glu Val His Asp Ala Leu Gly Leu Gln Gly
20 25 30
Ala Arg Ser Ile Tyr Phe Gly Arg Pro Thr Gly Arg Ser Ile Leu Ser
35 40 45
Asp Pro Ile Arg Pro Arg Pro Met Pro Thr Val Thr Val Ile Ile Tyr
50 55 60
Ser Asp Ile Arg Phe Leu Leu Glu Phe Pro Ser Val Phe Leu Cys Ala
65 70 75 80
Tyr Val Pro Pro Val Gln Arg Thr Val Ile Met Ala Asn Glu Lys Arg
85 90 95
Gly Gly Tyr Arg Gln Ile Asn Gln Ala Leu Asn Ile Cys Ala Trp Glu
100 105 110
Gly Tyr Leu Asn Glu Gln His Ala Arg Leu Pro Thr Leu Glu Asp Val
115 120 125
Glu Gln Ile Ser Pro Arg Val Leu Arg Val Leu Gly Gln Asn Glu Gly
130 135 140
Glu Val Arg Ile Ala Asp Gly Tyr Tyr Thr Cys Ser Ser Arg Leu Ile
145 150 155 160
Glu Gly Pro Gln Phe Thr Leu Gln Gly Thr Asn Thr Tyr Ile Val Gly
165 170 175
Thr Gly Arg His Arg Leu Leu Ile Asp Thr Gly Gln Gly Ile Pro Glu
180 185 190
Trp Ala Ser Leu Ile Ser Ser Thr Leu Ala Gly Ser Ser Ile Glu Leu
195 200 205
Ser His Val Leu Leu Thr His Trp His Gly Asp His Thr Gly Gly Val
210 215 220
Pro Asp Leu Leu Arg Met Tyr Pro Asp Leu Ser Asp Ser Ile Tyr Lys
225 230 235 240
His Thr Pro Gly Lys Gly Pro Glu Ala Tyr Leu Arg Arg Thr Asp Leu
245 250 255
Pro Cys Gly Arg Arg Tyr Cys Pro Cys Arg Thr His Pro Arg Pro Leu
260 265 270
Ala

<210> 38263
<211> 283
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (17)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38263
Phe Arg Asn Ser Val Glu Pro Ser Lys Gly Glu Ala Ile Arg Ser Ser
1 5 10 15
Xaa Thr Ile Asn Gly Lys Ala Ala Ser Leu Ala Gln Phe Lys Asn Ser
20 25 30
Leu Ser Ser Phe Ala Ile Gln Ile Asp Asn Leu Cys Gln Phe Leu Pro
35 40 45
Gln Asp Arg Val Ser Glu Phe Ala Ala Leu Thr Pro Val Glu Leu Leu

```
    50                  55                  60
His Ser Thr Gln Arg Ala Ala Ala Gly Pro Glu Met Ile Glu Trp His
65                  70                  75                  80
Glu Ser Leu Lys Lys Leu Arg Ala Glu Gln Lys Lys Leu Gln Leu Asp
                85                  90                  95
Asn Gln Ser Asp Lys Asp Leu Leu Ala Asn Leu Glu Asn Arg Gln Glu
            100                 105                 110
Met Gln Arg Val Asp Val Glu Arg Met Arg Gln Arg Ala Gln Ile Lys
        115                 120                 125
Arg Lys Ile Glu Met Leu Glu His Leu Arg Pro Val Ile Gln Tyr Arg
    130                 135                 140
Glu Ala Arg Asn Glu Leu Asn Gln Lys Lys Thr Glu Gln Arg Arg Leu
145                 150                 155                 160
Arg Lys Glu Leu Glu Asp Leu Glu Ala Glu Leu Ala Pro Ala Leu Arg
                165                 170                 175
Ala Val Asn Val Lys Gln Asp Tyr Cys Ser Lys Leu Asp Glu Val Val
            180                 185                 190
Lys Tyr Lys Lys Arg Cys Phe Glu Gln Ala Asp Arg Asp Ala Met Glu
        195                 200                 205
Ile Val Lys Lys Ile Glu Gln Phe Asp Asp Ala Leu Lys Asp Leu Asn
    210                 215                 220
Asn Gln Ile Glu Ala Glu Lys Lys Thr Gly Gln Ser Tyr Arg Gln Gln
225                 230                 235                 240
Ala Thr Lys Ile Gln Gln Thr Ile Asn Arg Leu Asn Arg Glu Leu Asn
                245                 250                 255
Glu Gln Pro Ala Glu Phe Asp Ile Gly Trp Tyr Asn Glu Arg Ile Val
            260                 265                 270
Gly Ala Arg Phe Glu Cys Asp Gln Asn Val Cys
        275                 280
```

<210> 38264
<211> 307
<212> PRT
<213> A.fumigatus

```
<400> 38264
Leu Ser Ser Gln Lys Glu Lys Arg Leu Ala Thr Arg Glu Leu Glu Ala
1               5                   10                  15
Lys Ala Thr Glu Ile Gln Gln Ala Arg Leu Pro Leu Val Glu Glu Leu
            20                  25                  30
Lys Ser Lys Asn Asp Gln Ile Arg Arg Ala Glu Gln Gln Leu Gln Ser
        35                  40                  45
Leu Ala Ser Gln Ser Gly Gln Gln Glu Ala Lys Leu Arg Lys Ala Ser
    50                  55                  60
Arg Asp Ser Tyr Gln Ala Tyr Lys Trp Leu Gln Asp Asn Gln Asp Lys
65                  70                  75                  80
Phe Glu Lys Glu Val Phe Gly Pro Pro Ile Val Thr Cys Ser Val Lys
                85                  90                  95
Asp Pro Lys Tyr Ala Asp Ala Val Glu Ser Leu Leu Gln Arg Thr Asp
            100                 105                 110
Phe Thr Ala Phe Thr Thr Gln Thr Arg Asn Asp Phe Arg Thr Leu Gln
        115                 120                 125
Arg Ala Leu Ile Ile Asp Leu Arg Leu His Asp Ile Ser Ile Arg Thr
    130                 135                 140
Ser Thr Thr Pro Leu Glu Ser Phe Arg Pro Pro Val Ser Asp Glu Glu
145                 150                 155                 160
```

```
Leu Arg Thr Leu Asp Phe Asp Gly Trp Ala Lys Asp Phe Leu Ser Gly
                165                 170                 175
Pro Glu Pro Val Leu Ala Val Leu Cys Ser Glu Asn Arg Leu His Gln
            180                 185                 190
Thr Pro Ile Asn Leu Gln Gly Ile Ser Asp Glu Thr Phe Ala Thr Leu
        195                 200                 205
Glu Asn Gly Ser Ile Ser Ser Trp Val Ala Gly Lys Gln Asn Tyr Gln
    210                 215                 220
Ile Val Arg Arg Arg Glu Tyr Gly Pro Gly Ala Val Ser Thr Arg Val
225                 230                 235                 240
Arg Gln Val Arg Pro Ala Gln Ile Trp Thr Ser Gln Ala Val Asp Val
                245                 250                 255
Leu Gly Lys Gln Glu Ile Glu Arg Glu Ile Leu Ala Leu Lys Asp Glu
            260                 265                 270
Leu Ser Arg Val Lys Glu Lys Met Glu Ser Glu Arg Ser Arg Leu His
        275                 280                 285
Arg Met Gly Glu Glu Lys Lys Glu Leu Asp Arg Glu Arg Val Ser Gln
    290                 295                 300
Arg Gln Ser
305
```

<210> 38265
<211> 64
<212> PRT
<213> A.fumigatus

<400> 38265

```
Glu Gly Lys Ser Thr Ala Ile Leu Glu Leu Phe Thr Leu Ala His Ser
1               5                   10                  15
Phe His Gln Ala Thr Leu Glu Lys Glu Lys Ala Glu Lys Gln Thr Ala
            20                  25                  30
Leu Ile Asn Tyr Arg Ala Ile Pro Glu Lys Ile Arg Lys Ser Ser Asn
        35                  40                  45
Leu Pro Ile Leu Ser Ser Val Asp Arg Pro Arg Leu Thr Ser Arg Lys
    50                  55                  60
```

<210> 38266
<211> 369
<212> PRT
<213> A.fumigatus

<400> 38266

```
Gln Asp Thr Gln Asp Ala Val Glu Asn Leu Arg Arg Leu Gln Glu Glu
1               5                   10                  15
Ala Thr Gln Leu Ser Ile Arg Leu Ile Glu Gly Leu Ser Asp Cys Thr
            20                  25                  30
Thr Leu Arg Glu Arg Ser Gln His His Lys Met Arg Leu Asp Gln Lys
        35                  40                  45
Ser Ser Glu Val Lys Ala Ala His Glu Asp Val Lys Thr Arg Ser Glu
    50                  55                  60
Ala Val Arg Lys Met Val Asp Gln Ala Asn Arg Ala Ile Arg Leu Val
65                  70                  75                  80
Asn Glu Gln Glu Asp Leu Arg Glu Phe Met Pro Thr Leu Val Glu Tyr
                85                  90                  95
Thr Leu Glu Gln Leu Glu Ala Asp Ile Asp Ser Glu Arg Ala His Leu
            100                 105                 110
```

```
Glu Leu Val Gln Gly Gly Asn Ala Asn Val Ile Lys Glu Phe Glu Glu
        115                 120                 125
Arg Glu Lys Gln Ile Asp Lys Leu Arg Asp Lys Val Ser Glu Phe Gln
    130                 135                 140
Asn Gln Leu Ala Glu Tyr Asp His Ala Ile Asn Glu Ile Arg Gly Lys
145                 150                 155                 160
Trp Glu Pro Lys Leu Glu Glu Leu Val Lys Ser Ile Ser Asp Ala Phe
                165                 170                 175
Ser Asp Ser Phe Ala Arg Ile Gly Cys Ala Gly Gln Val Thr Leu Asp
            180                 185                 190
Lys Ala Glu Asp Glu Glu Gly Pro Asn Gly Glu Pro Gly Gly Ser Asn
        195                 200                 205
Phe Asp Gln Trp Ser Ile Gln Ile Gln Val Lys Phe Arg Glu Asn Glu
    210                 215                 220
Asn Leu Ser Ile Leu Asp Ser His Arg Gln Ser Gly Gly Glu Arg Ala
225                 230                 235                 240
Val Ser Thr Ile Phe Tyr Leu Met Ala Leu Gln Ser Leu Ser Ala Ser
                245                 250                 255
Pro Phe Arg Val Val Asp Glu Ile Asn Gln Gly Met Asp Pro Arg Asn
            260                 265                 270
Glu Arg Met Val His Gly Arg Leu Val Asp Ile Ala Cys Ala Pro Ala
        275                 280                 285
Arg Asn Gly Gly Gly Gly Gln Tyr Phe Leu Ile Thr Pro Lys Leu Leu
    290                 295                 300
Ser Gly Leu Val Tyr Lys Pro Gly Met Arg Val Leu Cys Ile Tyr Ser
305                 310                 315                 320
Gly Glu His Met Pro Glu Asp Tyr Tyr Leu Leu Asn Phe Gly Gly Ala
                325                 330                 335
Ile Lys Arg Met Arg Ala Leu Asn Ala Glu Lys Lys Gly Glu Ala Arg
            340                 345                 350
Ala Ile Glu Gly Asp Ala His Arg Asn Asn Gly Asp Val Asp Val Tyr
        355                 360                 365
Gly
```

<210> 38267
<211> 157
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (121)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38267

```
Ile Arg Ser Arg Glu Val Ala Thr Gly Ala Tyr Arg Tyr Lys Asp Cys
1               5                   10                  15
Pro Asp Ala Ser Leu Arg Lys Gly Ser Glu Gly Arg Ser Arg Gln Asp
            20                  25                  30
Leu Tyr Gly Asp Thr Asn Gln Glu Leu Ala Ala Gly Asp Arg Gly Thr
        35                  40                  45
Glu Thr Arg Lys Val Arg Ser Arg Glu Glu Asp Arg His Thr Arg Gln
    50                  55                  60
Glu Thr Pro Ser Asn Gly Lys Ser Ala Gln Arg Val Arg Asn Pro Pro
65                  70                  75                  80
```

```
Pro Gly Pro Ser Pro Arg Glu Arg Lys Asp Arg Glu Arg Ser Ser Ser
                85                  90                  95
Ser Thr Glu Thr Ala Arg Lys Arg Arg Lys Arg Glu His Thr Ile Glu
            100                 105                 110
Arg Arg Pro Arg Ala Pro Gln Gly Xaa Ala Ser Leu Ala Ala Gln Met
        115                 120                 125
Thr Thr Pro Ser Thr Lys Leu Glu Arg Arg Arg Lys Asp Arg Ala Arg
    130                 135                 140
Glu Arg Pro Ile Pro Arg Thr Ser Glu Arg Thr Arg Ser
145                 150                 155
```

<210> 38268
<211> 112
<212> PRT
<213> A.fumigatus

<400> 38268

```
Ile Leu Glu Leu His Leu Ser Ile Gly Asn Thr Tyr Ile Phe Met Val
1               5                   10                  15
Trp Gly Tyr Glu Gly Ser Val Arg Arg Met Tyr Glu Trp Arg Leu Ser
            20                  25                  30
Thr Arg Arg Arg Ser Val Ser Gly Cys Gly Pro Cys Thr Ser Gly Gly
        35                  40                  45
Ser Gly Lys Val Val Arg Ser Val His Lys His Leu Asp Lys Ile Pro
    50                  55                  60
Ser Lys Ser Ser Pro Thr Thr Arg His Cys Glu Tyr Leu Glu Arg Ser
65                  70                  75                  80
His Lys Met Ala Asp Glu Glu Glu Arg Ile Lys Ala Glu Lys Leu Ala
                85                  90                  95
Ala Ala Lys Lys Arg Val Ser Leu Glu Asn Arg His Ala Asp Asp Pro
            100                 105                 110
```

<210> 38269
<211> 258
<212> PRT
<213> A.fumigatus

<400> 38269

```
Tyr Thr Phe Glu Gln Val Ala Gln Leu Gln Lys Gln Lys Lys Lys Ala
1               5                   10                  15
Ser Lys Lys Ala Ala Ser Thr Glu Ala Pro Lys Glu Ala Asp Thr Pro
            20                  25                  30
Lys Glu Thr Ala Ala Pro Thr Glu Gly Ala Pro Ala Glu Val Pro Ala
        35                  40                  45
Glu Val Lys Pro Asp Glu Thr Glu Ser Ile Glu Lys Glu Ala Gln Lys
    50                  55                  60
Glu Glu Glu Gln Gln Ala Glu Leu Glu Thr Glu Ser Lys Pro Glu Leu
65                  70                  75                  80
Gly Val Glu Thr Ala Ala Glu Pro Glu Lys Arg Pro Glu Ser Pro Val
                85                  90                  95
Glu Pro Met Pro Glu Ala Pro Thr Ser Pro Ser Pro Ala Pro Asp Ala
            100                 105                 110
Glu Pro Gln Thr Leu Asp Val Lys Leu Asp Thr Pro Arg Ala Gly His
        115                 120                 125
Thr Arg Gln Pro Ser Leu Ser Ile Gln Ser Lys Met Arg Ser Ser Ser
    130                 135                 140
```

```
Phe Arg Lys Gly Ser Val Ser Gln Gly Ser Ala Ser Thr Ser Pro Ser
145                 150                 155                 160
Asn Ala Leu Lys Ser Pro Ser Leu Pro Pro Leu Thr Gly Asn Gly Asp
                165                 170                 175
Ser Val His Glu Val Tyr Arg Lys Gln Ser Met Arg Ile Glu Glu Leu
            180                 185                 190
Glu Lys Glu Asn Lys Arg Leu Glu Lys Gln Leu Glu Glu Ser Thr Ser
        195                 200                 205
Arg Trp Arg Lys Thr Glu Glu Gln Leu Glu Asp Leu Arg Glu Ala Ser
    210                 215                 220
Val Asp Ala Ala Glu Leu Arg Asp Lys Leu Glu Lys Ser Glu Gln Lys
225                 230                 235                 240
Ala Ala Glu Ile Asp Glu Leu Val Trp Phe Cys Leu Tyr Pro Ser Lys
                245                 250                 255
His Cys
```

<210> 38270
<211> 219
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (213)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38270

```
Pro Ser Gln Gln Lys Ala Glu Ile Ala Ala Leu Gln Arg Gln Asn Ser
1               5                   10                  15
His Leu Gln Asn Arg Ser His Arg Asn Asn Ala Ser Ile Ser Val Pro
            20                  25                  30
Val Pro Ser Glu Ser Pro Pro Ala Asp Leu Val Gln Gln Leu Glu Ser
        35                  40                  45
Lys Ser Ala Thr Ile Glu Ala Met Glu Leu Glu Ile Ser Asn Leu Arg
    50                  55                  60
Ala Gln Leu Ser Glu Gln Ser Ser Ser Ser Ser Ala His Glu Ala Gln
65                  70                  75                  80
Ile Ala Ala Leu Glu Glu Arg Leu Ser His Ser Glu Ser Ala Leu Glu
                85                  90                  95
Lys Ser Gln Arg Glu Leu Thr Asp Thr Lys Ile Ala Leu Thr Arg Ala
            100                 105                 110
Ser Glu Lys Ala Val Lys Glu Gly Val Asp Lys Thr Ser Thr Glu Thr
        115                 120                 125
Leu Ile Lys Asn Leu Arg Arg Glu Ile Glu Glu Leu Lys Gln Glu Lys
    130                 135                 140
Ser Glu Ala Glu Lys Lys Ile Asp Thr Leu Asp Lys Lys Leu Gln Ala
145                 150                 155                 160
Met Gly Asn Leu His Lys Glu Ser Glu Thr Arg His Gln Ala Arg Leu
                165                 170                 175
Arg Glu Ser Glu Lys Thr Glu Arg Glu Ala Ala Val Leu Arg Lys Arg
            180                 185                 190
Leu Ala Ser Val Glu Asn Glu Asn Ile Arg Leu Lys Glu Asp Leu Glu
        195                 200                 205
Arg Leu Lys Glu Xaa Arg Val Trp Arg His Arg
    210                 215
```

<210> 38271
<211> 198
<212> PRT
<213> A.fumigatus

<400> 38271
Glu Thr Glu Pro Phe Arg Asn Asp Asp Glu Arg Ile Leu Asp Trp Ile
1 5 10 15
Glu Arg Asp Gly Cys Arg Val Trp Pro Ala Arg Gly Val Ser Ser Leu
20 25 30
Thr Ser Ser Val Trp Gly Ser Ala Ser Gly Ala Gly Glu Gly Glu Val
35 40 45
Gly Ala Ser Gly Met Gly Ser Thr Gly Asp Ser Gly Arg Phe Ser Gly
50 55 60
Ser Ala Ala Val Ser Thr Pro Ser Ser Gly Phe Asp Ser Val Ser Ser
65 70 75 80
Ser Ala Cys Cys Ser Ser Ser Phe Cys Ala Ser Phe Ser Ile Asp Ser
85 90 95
Val Ser Ser Gly Phe Thr Ser Ala Gly Thr Ser Ala Gly Ala Pro Ser
100 105 110
Val Gly Ala Ala Val Ser Phe Gly Val Ser Ala Ser Phe Gly Ala Ser
115 120 125
Val Leu Ala Ala Phe Leu Leu Ala Phe Phe Phe Cys Phe Trp Ser Cys
130 135 140
Ala Thr Cys Ser Lys Val Tyr Gln Pro Ser Ala Ser Phe Ser Gln Gly
145 150 155 160
Ser Ser Ala Cys Arg Phe Ser Arg Leu Thr Leu Phe Phe Ala Ala Ala
165 170 175
Ser Phe Ser Ala Phe Met Arg Ser Ser Ser Ser Ala Ile Leu Cys Asp
180 185 190
Arg Ser Arg Tyr Ser Gln
195

<210> 38272
<211> 77
<212> PRT
<213> A.fumigatus

<400> 38272
Thr Phe Cys Phe Met Tyr Ile His Tyr His Tyr Tyr Phe Ile Thr Ser
1 5 10 15
Ala Ser Tyr Asn Val Lys Asp His Lys Ser Thr Glu Gly Asp Leu Glu
20 25 30
Val Thr Cys Tyr Asn Asp Lys Leu Ser Thr Lys Glu Val Asp Gly Val
35 40 45
Arg Asp Ser Val Leu Arg Ser Thr Glu Gly Ile Leu Arg Phe Ser Lys
50 55 60
Arg Leu Phe Ser Met Ala Val Thr Val Glu Ala Ala Leu
65 70 75

<210> 38273
<211> 129
<212> PRT
<213> A.fumigatus

<400> 38273
Ser Gly Lys Tyr Leu Ser His Arg Lys Cys Phe Pro Arg Glu Cys Ile
1 5 10 15
Asn Gln Ile Gln Tyr Thr Phe Gly Cys Pro Gln Leu Gly Asn His Asp
20 25 30
Phe Ala Glu Phe Val Thr Ala Val Thr Ala Gly Ser Gly Tyr Arg Val
35 40 45
Thr His Ser Asp Asp Pro Val Pro Arg Val Phe Ser Thr Gln Pro Trp
50 55 60
Ile Asn Lys Thr Trp Gln Tyr Ser Thr Thr Ser Pro Glu Phe Trp Ile
65 70 75 80
Thr Thr Gly Asn Gly Val Pro Val Thr Ala Ser Asp Ile Gln Val Ile
85 90 95
Glu Gly Ile Asp Asn Lys Ser Gly Asn Leu Gly Thr Thr Gly Ser Asp
100 105 110
Thr Ser Ala His Ile Trp Tyr Ile Gly Asn Met Ser Gly Cys Ser Thr
115 120 125
Asn

<210> 38274
<211> 169
<212> PRT
<213> A.fumigatus

<400> 38274
Ala Pro Leu Pro Pro Ser Ser Ser Ser Ser Ser Ser Ser Ala Leu Leu
1 5 10 15
His Ser Cys Pro Leu Ser Ala Ile Pro Thr Leu Gln Gln Ser Lys Gln
20 25 30
Pro Asn Leu Tyr Ala Leu Val His Phe Tyr Ile Ala Ser Arg Arg Ser
35 40 45
Leu Ser Leu Thr Met Pro Lys Gln Arg Lys Phe Gln Ile His Glu Ala
50 55 60
Ser Ser Tyr Arg Ser Phe Leu Leu Ile Arg Pro Asp Asp Pro Asp Leu
65 70 75 80
Pro Ala Leu Thr Met Leu Arg Glu Val Leu Lys Val Leu Gln Ala Gly
85 90 95
His Gly Asn Phe Ser Pro Arg Arg Glu Ser Phe Pro Asp Thr Gln Val
100 105 110
Gly Asp Leu Ile Phe Glu Ile Ile Ser Glu Asp Asn Ser Phe Lys Gly
115 120 125
Leu Thr Asp Ala Ala Val Gln Cys Ile Ser Gln Gln Ile Glu Asn Trp
130 135 140
Asp Tyr Asp Gln Asp Met Ile Arg Trp Glu Gln Phe Val Glu Gly Met
145 150 155 160
Val Leu Ile Asp Tyr Arg Tyr Leu His
165

<210> 38275
<211> 156
<212> PRT
<213> A.fumigatus

<400> 38275
Thr Glu Lys Leu Thr Pro Ser Ile His His Pro Gly Asn Val Thr Gly

```
1               5                   10                  15
Phe Val Ala Ile Asp Asn Thr Asn Gln Leu Ile Val Leu Ser Phe Arg
            20                  25                  30
Gly Ser Arg Thr Leu Gly Asn Tyr Ile Thr Asp Ser Lys Tyr Gln Gln
        35                  40                  45
Val Pro Ala Ile Cys Pro Gly Cys Gln Val His Lys Gly Tyr Tyr Trp
    50                  55                  60
Ala Trp Gly Asn Phe Ser Ala Phe Ile Met Gln Pro Ile Asn Gln Leu
65                  70                  75                  80
Ala Ala Ile Tyr Pro Ser Tyr Gln Ile Val Phe Thr Gly His Ser Phe
                85                  90                  95
Gly Gly Ala Leu Ala Thr Leu Gly Ala Ala Leu Glu Gly Gly Asn Pro
            100                 105                 110
Ser Arg Pro Ile Asp Leu Val Ser Thr Ser Val Thr Ala Asn Val Ser
        115                 120                 125
Leu Glu Asn Ala Leu Ile Arg Tyr Ser Thr Leu Leu Asp Val Pro Asn
    130                 135                 140
Trp Ala Ile Met Ile Leu Leu Ser Leu Ser Leu Leu
145                 150                 155
```

<210> 38276
<211> 73
<212> PRT
<213> A.fumigatus

<400> 38276

```
Ala Gly Ala Gln Leu Thr Glu Leu Phe Ser Ser Arg Gln Glu Lys Lys
1               5                   10                  15
Met Met Phe Leu Phe Pro Arg Val Ser Ile Leu Ser Ala Phe Glu Leu
            20                  25                  30
Asn Tyr Lys Asn Asp Thr Leu Cys Trp Thr Val Ser Ser Leu Lys Thr
        35                  40                  45
Phe Arg Val Gln Ile Ser Lys Pro Asn Lys Ile Asn Asp Lys Leu Cys
    50                  55                  60
Asn Ile Ala Gln Pro Thr Ala Tyr Asp
65                  70
```

<210> 38277
<211> 118
<212> PRT
<213> A.fumigatus

<400> 38277

```
Tyr Cys Arg Thr Gly Ser Asp Arg Thr Arg Thr His Gln Lys Gln Glu
1               5                   10                  15
Gly Asp Glu Lys Val Glu Glu Glu Leu Leu Asp Arg Ile Lys Thr Leu
            20                  25                  30
Asn Ser Glu Leu Asp Lys Met Ala Pro Asn Thr Arg Ala Met Glu Arg
        35                  40                  45
Leu Glu Ser Val Glu Asn Lys Leu Arg Ser Thr Glu Lys Asp Phe Asp
    50                  55                  60
Glu Ala Arg Lys Arg Ala Arg Lys Ala Lys Glu Asp Phe Glu Glu Val
65                  70                  75                  80
Met Arg Lys Arg Ser Asp Leu Phe Asn Lys Ala Phe Ser His Ile Ser
                85                  90                  95
Glu Gln Ile Gly Pro Ile Tyr Arg Glu Leu Thr Arg Ser Ala Asn Tyr
```

```
            100                 105                 110
Pro Leu Gly Gly Gln Ala
        115
```

<210> 38278
<211> 956
<212> PRT
<213> A.fumigatus

<400> 38278

```
Gly Ser Pro Leu Arg Leu Ser Phe Asp Pro Gly Gly Asp Ala Leu Ser
1               5                  10                  15
Glu Ser Leu Glu Tyr Gly Ala Asp Tyr Glu Arg Leu Lys Ala Glu Ala
            20                  25                  30
Glu Glu Ala Ala Glu Gln Gln Thr Ile Gln Leu Asn Arg Arg Arg Gly
        35                  40                  45
Ile Asn Ser Glu Ile Lys Gln Tyr Gln Glu Gln Lys Arg Glu Ala Glu
    50                  55                  60
Asn Tyr Ala Arg Lys Ala Glu Glu Arg Asp Gln Ala Glu Ile Thr His
65                  70                  75                  80
Ile Leu Trp Lys Leu Phe His Phe Gln Arg Leu Ile Asp Ala Ser Ser
                85                  90                  95
Ala Asp Ile Gln Lys Tyr Gln Glu Glu Leu Lys Glu Tyr Arg Arg Gly
            100                 105                 110
Val Glu Lys Tyr Glu Lys Asn Val Glu Ser Ala Lys Val Asp His Ala
        115                 120                 125
Lys Val Gly Arg Asp Val Ala Lys Ala Glu Arg Asn Ile Ile Lys Lys
    130                 135                 140
Glu Lys Asp Ile Glu Glu Ala Thr Asn Ala Leu Val Pro Val Asp Glu
145                 150                 155                 160
Lys Val Asp Ile Thr Arg Lys Lys Val Glu Arg Phe Ala Ser Arg Ile
                165                 170                 175
Ala Glu Ile Gly Lys Glu Arg Asp Ser Gln Ala Ala Asn Val Lys Gln
            180                 185                 190
Leu Glu Lys Asp Leu Lys Val Val Glu Lys Ala Gln Ala Gln Trp Glu
        195                 200                 205
Ala Glu Trp His Lys Thr Met Ser Asn Lys Gly Gly Gln Leu Ser Glu
    210                 215                 220
Ser Asp Gln Gln Glu Tyr Lys Met Leu Lys Glu Glu Val Ser Lys Arg
225                 230                 235                 240
Ser Ser Ala Glu Gln Ile Asn Leu Asp Asn Leu Lys Arg Gln Arg Lys
                245                 250                 255
Thr Glu Ala Glu Ala Tyr Asn Ser Leu Lys Ser Lys Phe Asp Ser Thr
            260                 265                 270
Glu Trp Gln Leu Lys Ser Val Glu Asn Asp Thr Gln Thr Leu Thr Glu
        275                 280                 285
Arg Lys Ser Ala Leu Asn Asp Thr Val Lys Thr Thr Ser Lys Glu Ile
    290                 295                 300
Asp Arg Lys Lys Lys Glu Leu Asn Ala Leu Thr Ser Glu Arg Leu Arg
305                 310                 315                 320
Ile Ser Gln Met Arg Thr Glu Leu Glu Glu Lys Val Gln Val Val Leu
                325                 330                 335
Lys Lys Leu Leu Glu Ala Asp Asp Gly Lys Lys Gln Thr Glu Arg Glu
            340                 345                 350
Leu Arg Ala Lys Glu Leu Ile Ser Thr Leu Lys Arg Ile Phe Pro Gly
        355                 360                 365
```

```
Val Lys Gly Arg Val Ser Asp Leu Cys Arg Pro Lys Gln Lys Lys Tyr
    370                 375                 380
Ala Glu Ala Val Ser Thr Val Leu Gly Arg His Phe Asp Ala Ile Val
385                 390                 395                 400
Val Asp Asn Glu Lys Thr Ala Lys Glu Cys Ile Gln His Leu Arg Tyr
                405                 410                 415
Gln Arg Ala Gly Gln Ala Thr Phe Ile Pro Leu Glu Thr Ile Gln Val
            420                 425                 430
Lys Ala Phe Asn Ser Asn Leu Lys Gly Ile His Arg Gly Met Arg Pro
        435                 440                 445
Ala Ile Glu Thr Val Asp Tyr Asp Asp Ser Val Ala Arg Ala Ile Ser
    450                 455                 460
Tyr Ala Cys Gly Asn Ala Ile Val Cys Asp Asp Leu Ala Thr Ala Lys
465                 470                 475                 480
Tyr Leu Cys Tyr Glu Arg Asn Val Asp Ala Lys Ala Val Thr Leu Asp
                485                 490                 495
Gly Thr Val Ile His Lys Gly Gly Leu Met Thr Gly Gly Arg Gly Pro
            500                 505                 510
Gln Gln Asn Ser Lys Arg Trp Glu Asp Ser Glu Val Glu Asn Leu His
        515                 520                 525
Lys Leu Lys Asp Lys Leu Met Ala Asp Leu Ala Asn Leu Pro Lys Gly
    530                 535                 540
His Arg Arg Gly Thr Glu Glu Glu Thr Leu Gln Gly Glu Leu Val Gly
545                 550                 555                 560
Leu Glu Gln Arg Leu Ala Tyr Ala Gln Glu Glu Leu Lys Ala Leu Glu
                565                 570                 575
Arg Asn Leu Lys Ser Lys Arg Thr Glu Leu Asp Phe Val Lys Arg Gln
            580                 585                 590
Leu Glu Asp Leu Arg Pro Lys Tyr Met Glu Arg Gln Glu Ala Leu Glu
        595                 600                 605
Glu Leu Asp Gln Thr Ile Ala Gln Ser Gln Glu Ser Val Ser Arg Ile
    610                 615                 620
Glu Asp Glu Ile Tyr Arg Lys Phe Cys Lys Arg Leu Gly Tyr Ala Asn
625                 630                 635                 640
Ile Arg Glu Tyr Glu Val Gln Gln Gly Ser Leu Gln Glu Glu Ala Ala
                645                 650                 655
Gln Lys Lys Leu Glu Phe Thr Thr Gln Lys Ser Arg Ile Glu Asn Gln
            660                 665                 670
Leu Ser Phe Glu Arg Gln Arg Leu Gln Ala Thr Asn Asp Arg Ile Ala
        675                 680                 685
Ser Leu Gln Ala Gln His Gly Arg Asp Gln Ser Leu Ile Lys Glu Leu
    690                 695                 700
Lys Ala Glu Gln Glu Gln Ile Arg Asn Gln Leu Asp Glu Tyr Asn Ala
705                 710                 715                 720
Glu Leu Asp Val Leu Arg Glu Arg Leu Gln Glu Gln Lys Glu Ala Tyr
                725                 730                 735
Ala Gln Ser Ala Glu Asn Leu Ala Arg Gln Arg Arg Glu Leu Gln Arg
            740                 745                 750
Arg Ser Lys Asp Val Glu Gly Val Leu Lys Asn Ile Ser Ala Leu Glu
        755                 760                 765
Ala Glu Ile Gln Arg Asn Ser Ser Ser Arg Tyr Ala Val Leu Arg Arg
    770                 775                 780
Cys Lys Leu Glu Asp Ile Asn Ile Pro Leu Thr Glu Asn Ser Lys Ser
785                 790                 795                 800
Leu Asp Gln Leu Pro Ile Asp Asp Ile Val Gln Thr Ala Asp Pro Asp
                805                 810                 815
```

```
Ala Met Asp Val Asp Glu Glu Ala Asn Asp Gly Ser Gly Ile Val Gln
            820                 825                 830
Asp Tyr Gly Ile Glu Val Asp Phe Asp Ser Leu Gly Glu Ser Leu Lys
        835                 840                 845
Glu Val Ser Thr Val Ala Pro Gly Gln Ile Glu Gln Glu Leu Ile Arg
    850                 855                 860
Asn Arg Arg Ala Thr Lys Arg Ser Lys Arg Asn Cys Ser Thr Glu Leu
865                 870                 875                 880
Lys Leu Ser Thr Ala Ser Trp Thr Arg Trp Arg Arg Ile His Val Arg
                885                 890                 895
Trp Ser Val Ser Lys Ala Leu Lys Thr Asn Cys Glu Ala Leu Arg Arg
            900                 905                 910
Thr Ser Met Lys His Ala Asn Gly Leu Ala Arg Pro Lys Lys Thr Ser
        915                 920                 925
Arg Arg Leu Cys Glu Asn Asp Arg Ile Ser Ser Thr Lys Arg Ser Leu
    930                 935                 940
Thr Ser Arg Ser Lys Leu Asp Pro Ser Thr Val Ser
945                 950                 955
```

<210> 38279
<211> 149
<212> PRT
<213> A.fumigatus

<400> 38279

```
Ile Met Asn His Arg Tyr Leu Asp Ile Glu Asp Ser Asp Glu Pro Tyr
1               5                   10                  15
Leu Asp Gly Ile Lys Tyr His Ala Met Pro Pro Leu Lys Arg Phe Arg
            20                  25                  30
Asp Met Glu His Leu Ser Gly Gly Glu Lys Thr Met Ala Ala Leu Ala
        35                  40                  45
Leu Leu Phe Ala Ile His Ser Tyr Gln Pro Ser Pro Phe Phe Val Leu
    50                  55                  60
Asp Glu Val Asp Ala Ala Leu Asp Asn Thr Asn Val Ala Arg Ile Ala
65                  70                  75                  80
Asn Tyr Ile His Asp His Ala Ala Pro Gly Met Gln Phe Ile Val Ile
                85                  90                  95
Ser Leu Lys Thr Gly Leu Phe Gln Asn Ser Glu Ala Leu Val Gly Ile
            100                 105                 110
Tyr Arg Asp Gln Val Glu Asn Thr Ser Lys Ser Leu Thr Leu Asp Val
        115                 120                 125
Ser Leu Pro Ser Phe Phe Gln Pro Pro Phe Gln Val Leu Thr Ser Pro
    130                 135                 140
Ala Ala Pro Glu Ile
145
```

<210> 38280
<211> 64
<212> PRT
<213> A.fumigatus

<400> 38280

```
Leu Ser Pro Ser Thr His Thr Ala Ala Leu Leu His Cys Cys Thr Ala
1               5                   10                  15
Thr Thr Lys His Gln Lys Leu Pro Pro Ser Pro Asn Lys Gln Leu Gln
            20                  25                  30
```

```
Arg His Trp Glu Ala Leu Thr Ser Arg Phe Ser Thr Val Ser Arg His
        35                  40                  45
Asn Tyr Ile Val Gly Ser Cys Arg Gly Tyr Gly Pro Pro Lys Leu Arg
    50                  55                  60
```

<210> 38281
<211> 164
<212> PRT
<213> A.fumigatus

<400> 38281

```
Pro Arg Phe Phe Arg Lys Ala Leu Cys Gly Ala Asp Pro Arg Ile Ser
1               5                   10                  15
Val Arg Asn Thr Thr Ala Arg Pro Ser Ser His Ala Gln Lys Thr Arg
            20                  25                  30
Tyr Ile Gly Cys Ser Asp Ser Arg Val Pro Ala Asn Glu Ile Met Gly
        35                  40                  45
Leu Glu Ala Gly Glu Val Phe Val His Arg Asn Ile Ala Asn Leu Val
    50                  55                  60
Pro Asn Thr Asp Leu Asn Val Met Ser Val Ile Asn Tyr Ala Val Arg
65                  70                  75                  80
His Leu Gln Val Lys His Ile Val Val Cys Gly His Tyr His Cys Gly
                85                  90                  95
Gly Val Lys Ala Ala Leu Thr Pro Ser Asp Leu Gly Leu Leu Asn Pro
            100                 105                 110
Trp Leu Arg Asn Val Arg Asp Val Tyr Arg Leu His Glu Gln Glu Leu
        115                 120                 125
Asp Gly Ile Gln Asp Ala Thr Ala Arg Tyr Arg Arg Leu Val Glu Leu
    130                 135                 140
Asn Val Ile Glu Ser Cys Arg Asn Val Ile Lys Thr Ala Ala Val Gln
145                 150                 155                 160
Gln Lys Leu Ser
```

<210> 38282
<211> 64
<212> PRT
<213> A.fumigatus

<400> 38282

```
Gly Leu Ala Gln Asn Trp Cys Thr Met Val Gly Ser Asp Gly His Leu
1               5                   10                  15
Ser Tyr Gly Ser Thr Leu Leu Thr His Arg Ser Cys Thr Asp His Asn
            20                  25                  30
Val Ala Gly Phe His Tyr Asp Met Tyr Glu Arg Asn Glu Val Gln Asn
        35                  40                  45
Cys Ser Ala Leu Ala Thr Gln Ala Asp Arg Leu Thr Gly Gln Pro Ala
    50                  55                  60
```

<210> 38283
<211> 124
<212> PRT
<213> A.fumigatus

<400> 38283

```
Val Leu Lys Arg Glu Leu Gly Cys Arg Arg Pro Arg Val Met Pro Leu
```

```
1               5                   10                  15
Ala Ala Ser Phe Ser Ala Arg Lys Ser Ser Cys Met Pro Gln Ala Asp
            20                  25                  30
Ile Ser Gly Pro Thr Lys Glu Cys His Thr Ala His Phe Ser Pro Asp
        35                  40                  45
Pro Lys Ile Leu Val Ala Gly Phe Leu Gln Asp His Pro Glu Asn His
    50                  55                  60
Phe Ile Ser Ser Pro Ser Ile Met Glu Pro Ser Asp Gln Lys Val Asp
65                  70                  75                  80
Thr Val Pro Gln Tyr Leu Lys Gln Ser His Glu Arg Ile Phe Glu Asn
                85                  90                  95
Asn Arg Ala Trp Val Ala Thr Lys Met Lys Asp Asp Pro Ala Phe Phe
            100                 105                 110
Glu Lys Leu Ser Ala Gly Gln Thr Pro Glu Tyr Leu
        115                 120
```

<210> 38284
<211> 111
<212> PRT
<213> A.fumigatus

<400> 38284

```
Glu Arg Trp Pro Ser Leu Pro Thr Met Val His Gln Phe Cys Ala Arg
1               5                   10                  15
Pro His Ser Gly Gly Met Asp Ser Thr Glu Arg Leu Ile Asp Leu Ala
            20                  25                  30
Ile Gln Thr Arg Leu Phe Ser Leu Ser Asn Cys Asp Gly Trp Ala Ile
        35                  40                  45
Ala Asp Glu Pro Phe Phe Val Ala Asp Leu Gly Gln Val Ile Arg Gln
    50                  55                  60
His Arg Arg Trp Arg Val Asn Leu Pro Asp Val Leu Pro Phe Tyr Gly
65                  70                  75                  80
Ser Ala Pro Ile Pro Leu Pro Ser Gln Val Leu Ala Ser Leu Val Leu
                85                  90                  95
Thr Leu Ile Val Gly Gly Cys Ser Gly Glu Met Gln Pro Arg Ser
            100                 105                 110
```

<210> 38285
<211> 251
<212> PRT
<213> A.fumigatus

<400> 38285

```
Ala Arg Val Arg Cys Val Trp Gly Glu Phe Pro Cys Trp Tyr Val Ala
1               5                   10                  15
Ser Ser Ala Ile Val Ser Gln Arg Ile His Glu Leu Leu Ser Gly Thr
            20                  25                  30
Gly Ala Ser Asn Ala Ser Ala Tyr Val Thr Ala Ile Arg Asp Ala Lys
        35                  40                  45
Ile Val Phe Gly Tyr Gly Lys Ser Leu Gly Phe Asp Met Asn Leu Leu
    50                  55                  60
Asp Ile Gly Gly Gly Phe Gln Asp Ser Asn Leu Glu Asp Ile Ala Cys
65                  70                  75                  80
Val Leu Arg Pro Ile Leu Lys Glu Glu Phe Pro Gly Val Arg Leu Leu
                85                  90                  95
Ala Glu Pro Gly Arg Tyr Tyr Val Arg Ser Ala Tyr Thr Leu Ala Cys
```

```
            100                 105                 110
Lys Val Leu Ser Arg Arg Arg His Ser Gly Thr Asp His His Asp Arg
        115                 120                 125
Pro Asp Met Leu Tyr Gln Asn Asp Gly Val Tyr Gly Asn Phe Met Asn
    130                 135                 140
Val Leu Ile Glu Lys Glu Thr Val Arg Pro Ser Leu Val Ala Tyr Thr
145                 150                 155                 160
Trp Pro Phe His Ser Arg Gly Asn Asp Thr Arg Arg Lys Leu Glu Glu
                165                 170                 175
His Arg Tyr Thr Thr Trp Gly Pro Thr Cys Asp Ser Met Asp Cys Val
            180                 185                 190
Ala Lys Asp Val Pro Met Thr Ser Glu Ile Arg Ile Gly Asp Trp Leu
        195                 200                 205
Lys Tyr Lys Asn Met Gly Gly Glu Ser Phe His Ala Arg Leu Ser Gly
    210                 215                 220
Ile Glu Leu Lys Thr Leu Thr Ile Leu Arg Ser Leu His Tyr Ser Asn
225                 230                 235                 240
Gly Asp Ser Val Gln Trp Val Phe Lys Pro Val
                245                 250
```

<210> 38286
<211> 165
<212> PRT
<213> A.fumigatus

<400> 38286

```
Leu Ser Ala Ala Ala Ala Val Lys Cys Asn Pro Asp Pro Asn Leu Leu
1               5                   10                  15
Arg Leu Leu Ala Asn Leu Gly Thr Gly Phe Asp Cys Ala Ser Ile Glu
            20                  25                  30
Glu Leu Arg Thr Val Leu Ser Leu Gly Val Asp Pro Cys Arg Ile Ile
        35                  40                  45
Phe Ala Asn Pro Cys Lys Ser Val Ser Ser Leu Val Phe Ala Ala Arg
    50                  55                  60
Thr Gly Val Thr Arg Thr Thr Phe Asp Asn Leu Asp Glu Leu Asp Asn
65                  70                  75                  80
Ile Arg Thr Phe Leu Pro Asn Ala Glu Leu Val Leu Arg Leu Tyr Ala
                85                  90                  95
Ser Asp Ser Asp Ala Leu Ile Asn Leu Gly Glu Lys Phe Gly Ala Thr
            100                 105                 110
Val Glu Ala Ser Leu Pro Leu Leu Gln Arg Ala Arg Glu Leu Gly Leu
        115                 120                 125
Asp Val Cys Gly Val Ser Phe His Val Gly Thr Leu Leu Pro Ala Pro
    130                 135                 140
Leu Phe Pro Asn Val Phe Thr Ser Ser Tyr Gln Gly Arg Gly Pro Pro
145                 150                 155                 160
Met His Leu Pro Met
                165
```

<210> 38287
<211> 137
<212> PRT
<213> A.fumigatus

<400> 38287

```
Lys Phe Leu Leu His Arg Arg Arg Leu Asp Tyr Ile Ser Ala Arg Leu
```

```
1               5                   10                  15
Asp Asn Ile Gln Leu His Glu Ala Ser Ile Ser Arg Ser Cys Ile Leu
            20                  25                  30
Asn Pro Ile Gln Leu Leu Leu Met Gln Thr Val His Ile Ala His Ile
        35                  40                  45
Pro Glu Pro Gly Ile Glu Glu Pro Gln Val Arg Arg Gly Gln Arg Arg
    50                  55                  60
Phe Asp Thr Ala Ala Val Val Val Ala Ala Asp Asp Asn Val Leu Asp
65                  70                  75                  80
Leu Gln Val Ala Asp Cys Val Ile Asn Asp Arg His His Val Glu Val
                85                  90                  95
Cys Val Gly Asp Gln Val Arg Asn Val Pro Val Asp Glu Asp Leu Pro
            100                 105                 110
Gly Phe Glu Thr His Asp Leu Val Gly Gly Asp Ala Thr Val Ala Ala
        115                 120                 125
Ala Asp Val Pro Gly Leu Leu Ser Met
    130                 135
```

<210> 38288
<211> 141
<212> PRT
<213> A.fumigatus

<400> 38288

```
Asp Thr Thr Phe His Ala Asn Gln Thr Met Phe Arg Lys Trp Ile Thr
1               5                   10                  15
Asn Gly Met Phe Ala Asp Tyr Phe Val Thr Gly Cys Arg Thr Glu Lys
            20                  25                  30
Gly Phe Ser Val Leu Leu Ile Pro Arg Gly Glu Gly Val Glu Thr Lys
        35                  40                  45
Gln Ile Lys Thr Ser Tyr Ser Thr Ala Ala Ala Thr Ala Phe Val Gln
    50                  55                  60
Phe Glu Asn Val Lys Val Pro Val Glu Asn Leu Leu Gly Glu Glu His
65                  70                  75                  80
Lys Gly Phe Ile Val Ile Met Ser Asn Phe Asn His Glu Arg Phe Thr
                85                  90                  95
Met Val Cys Ala Val Ile Arg Met Cys Met Thr Val Thr Glu Glu Cys
            100                 105                 110
Met Lys Trp Cys Asn Gln Arg Ile Val Phe Gly Lys Lys Leu Ile Glu
        115                 120                 125
Gln Pro Val Met Arg Gln Lys Tyr Val Ser Leu His Arg
    130                 135                 140
```

<210> 38289
<211> 949
<212> PRT
<213> A.fumigatus

<400> 38289

```
Ile Ser Ser Leu Ser Thr Leu Ala Pro Lys Ile Tyr Pro Arg Ser Arg
1               5                   10                  15
Trp Leu Ala Pro Pro Pro Thr Ser Gln Leu Arg Arg Gln Pro Leu Phe
            20                  25                  30
Arg Phe Leu Pro Ser Ile Leu Arg Pro Ser Asn Arg Asp Arg Gln Thr
        35                  40                  45
Arg Pro Gly Arg Leu Leu Arg Phe Phe Arg Leu Leu Ile Gly Pro His
```

```
    50                  55                  60
Ala Thr Arg Arg Ala Gln Leu Arg Leu Trp Gly Leu Arg His Glu Thr
65                  70                  75                  80
Ile Pro Ala Phe Arg His Arg Ala Gln Ala Arg Val Tyr Arg Ala Ile
                85                  90                  95
Val Gln Gln Gln Ala Arg Arg Ala Arg Arg Arg Ile Ser Gly Lys Lys
            100                 105                 110
Gly Ile Leu Glu Leu Leu Leu Leu Gly Arg Arg Gly Leu Pro Arg Arg
        115                 120                 125
Leu Gly Ala Gly Ser Val Gly Gly Ser Gln Leu Val Pro Arg Leu Lys
    130                 135                 140
Gly Leu Arg Val Ala Gly Gln Ala Pro Asp Ala Ala Ala Arg Ser Ser
145                 150                 155                 160
Met Ser Gln Tyr Glu Ser Ser Ala Ser Thr Ser Trp Gly Ala Gly Gly
                165                 170                 175
Gly Gly Arg Arg Lys Lys Val Tyr Glu Tyr Leu Lys Ala Ala Asn Glu
            180                 185                 190
Leu Arg Gln Thr Tyr Thr Ala Gln Trp Ala Ala Gln Arg Asn Asn Gln
        195                 200                 205
Arg Asp Tyr Asn Glu Asp Tyr Tyr Asn Ile Pro Cys Ala Phe Ser Asp
    210                 215                 220
Val Glu Ile Thr Arg Ser Gly Asn Glu Glu Met Val Leu Phe Pro Ser
225                 230                 235                 240
Tyr Ala Arg Arg Leu Val Lys Gly Lys Arg Pro Glu Val Gln Ala Arg
                245                 250                 255
Gln Arg Arg Asp Ser Thr Ser Thr Ile Asp Glu Tyr Arg Gly Val Ser
            260                 265                 270
Asp Asp Pro Gly Pro Ala Ser Glu Trp Pro Arg Tyr Glu Asp Glu His
        275                 280                 285
Ala Val Val Ala Val Asp Val Arg Gly Trp Val Tyr Val Pro His Arg
    290                 295                 300
Gly Pro Met Thr Arg Lys His Arg Leu Leu Ile Ala Leu Ala Arg Lys
305                 310                 315                 320
Leu Ser Gly Ile Pro Ala Pro Asn Thr Thr Ser Ala Asp Asp Gly Asn
                325                 330                 335
Ala Thr Val Ala Val Gly Thr Pro Thr Lys Thr Ser Gly Ala Ser Glu
            340                 345                 350
Glu Glu Met Val Asp Gln Glu Met Gln Ser Ile Ile Asn Asn Ala Glu
        355                 360                 365
Lys Ser Ala Asp Pro Val Trp Lys Gly Ser Ala Ser Ala Asp Arg Ser
    370                 375                 380
Ser Ser Ala Ala Phe Glu Lys Ala Thr Gln Ile Ser Gln Leu Ser Lys
385                 390                 395                 400
Asp Glu Leu Thr Val Ala Asn Ala His Leu Met Glu Arg Leu Arg Pro
                405                 410                 415
Phe Leu Thr Asn Pro Arg Ala Ala Met Pro Val Thr Val Phe Phe Tyr
            420                 425                 430
Asn Asp Glu Gln Ser Gln Ser Arg Asn Ile Met Thr Asp Glu Ser Gly
        435                 440                 445
His Phe Asn Leu Arg Ala Ala Leu Ser Phe Val Pro Thr His Ile Arg
    450                 455                 460
Val Leu Ala Ser Glu Glu Leu Ser Ala Thr Lys Glu Ile Gln Ile Ile
465                 470                 475                 480
Glu Pro Thr Gly Val Ser Leu Ile Ser Asp Ile Asp Asp Thr Val Lys
                485                 490                 495
His Ser Ala Ile Thr Asn Gly Ala Lys Glu Ile Phe Arg Asn Thr Phe
```

```
                500                 505                 510
Val Arg Glu Leu Ala Asp Leu Thr Val Asp Gly Val Thr Asp Trp Tyr
        515                 520                 525
Asn Glu Leu Ala Lys Met Gly Val Glu Ile His Tyr Val Ser Asn Ala
    530                 535                 540
Pro Trp Gln Leu Tyr Pro Leu Leu Glu Arg Tyr Phe Lys Leu Val Gly
545                 550                 555                 560
Leu Pro Pro Gly Ser Phe His Leu Lys Gln Tyr Ser Gly Met Leu Gln
                565                 570                 575
Gly Ile Phe Glu Pro Thr Ala Glu Arg Lys Arg Gly Ser Leu Glu Gln
            580                 585                 590
Ile Leu Arg Asp Phe Pro Glu Arg Lys Phe Ile Leu Val Gly Asp Ser
        595                 600                 605
Gly Glu Ala Asp Leu Glu Val Tyr Thr Asp Ile Val Leu Ala Asn Pro
    610                 615                 620
Gly Arg Ile Leu Gly Ile Phe Ile Arg Asp Val Thr Thr Ser Asp His
625                 630                 635                 640
Lys Asp Phe Phe Asp Lys Ser Val Asp His Leu Glu Gly Val Pro Ala
                645                 650                 655
Arg Ser His Ser Thr Ser Val Leu Val Asp Asp Ser Asp Ser Thr Ala
            660                 665                 670
Lys Arg Pro Pro Leu Pro Pro Arg Pro Pro Arg Glu Ser Pro Gly Pro
        675                 680                 685
Ser Thr Asp Ala Ala Ser Ile Asp Asn Gly Asp Leu Ile Asp Leu Arg
    690                 695                 700
Asp Glu Glu Gly Glu Lys Asn Val Ser Val Thr Thr Pro Lys Pro Ala
705                 710                 715                 720
Asn Leu Arg Met Pro Pro Met Lys Pro Ser Lys Pro Ser Ser Leu Arg
                725                 730                 735
Ala Val Thr Thr Asn Ser Glu Ser Thr Glu Asn Gly Ala Ser Ser Gln
            740                 745                 750
Thr Gln Asp Val Ile Arg Arg Lys Pro Ala Pro Pro Val Pro Pro Arg
        755                 760                 765
Arg Gln Ile Ala Thr Gly Gln Glu Glu Ser Ser Ser Ser Pro Arg Ala
    770                 775                 780
Pro Ala Gln Ser Thr Ser Tyr Ala Gly Gly Val Pro Asn Ala Ala Gln
785                 790                 795                 800
Ser Val Thr Asn Ser Leu Pro Ala Gly Thr Lys Gln Leu Pro Ile Arg
                805                 810                 815
Pro Lys Ile Ser Asp Gly Asn Gly Thr Val Asp Gln Pro Ser Asp Ala
            820                 825                 830
Thr Arg Ser Ala Arg Pro Lys Gln Ala Pro Pro Pro Pro Pro Pro Arg
        835                 840                 845
Arg Thr Ile Thr Gly Ile Ser Thr Ala Thr Ser Asp Ser Pro Val Asp
    850                 855                 860
Arg Pro Ala Ser Gln Lys Ile Val Ser Tyr Pro Ala Ser Ala Ala Ala
865                 870                 875                 880
Ala Ala Tyr Gln Phe Ala Ser Glu Arg Leu Asn Met Ser Ala Ser Pro
                885                 890                 895
Ala Thr Ser Leu Arg Ser Arg Ala Ser Thr Pro Ser Leu Ser Arg Ser
            900                 905                 910
Ser Thr Asn Ser Val Asn Asn Gln Pro Asp Ser Ser Ser Val Pro Pro
        915                 920                 925
Pro Pro Leu Pro Asn Lys Arg Glu Asp Cys Gly Asp Gly Val Gly Asn
    930                 935                 940
Gly Leu Thr Ser Ser
```

945

<210> 38290
<211> 224
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (13)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38290
Ser Leu Phe Leu His Leu Thr Pro Thr Ile Ser Ile Xaa His Asn Pro
1 5 10 15
Ser Ser Leu Thr Met Ser Lys Thr Phe Thr Arg Ala Glu Val Ala Lys
20 25 30
His Asn Thr Glu Asp Ser Phe Trp Cys Ile Ile Asp His Arg Val Tyr
35 40 45
Asp Leu Thr Asp Phe Leu Asp Ala His Pro Gly Gly Ser Val Val Phe
50 55 60
Ala Gln Val Ala Gly Gln Asp Ala Thr Thr Asp Phe Tyr Asn Leu His
65 70 75 80
Arg Gln Glu Val Ile Asp Lys Tyr Arg Asp Gln Leu Cys Ile Gly Thr
85 90 95
Ile Glu Gly Glu Thr Pro Glu Ile Val Ser Pro Glu Pro Gly Ser Leu
100 105 110
Ser Thr Val Pro Tyr Ala Glu Pro Leu Trp Leu Arg Pro Glu Phe Lys
115 120 125
Ser Pro Tyr Tyr Lys Glu Ser His Arg Arg Leu Gln Arg Ala Met Arg
130 135 140
Glu Phe Thr Asp Arg Tyr Val Thr Pro Glu Ala Gln Glu Lys Glu Arg
145 150 155 160
Asp Gly Thr Tyr Ile Ser Gln Lys Leu Ile Asp Lys Met Ala Glu Glu
165 170 175
Asn Val Leu Ala Met Arg Leu Gly Pro Gly Lys His Leu His Gly Arg
180 185 190
Lys Leu Leu Gly Gly Val Val Asp Gly Lys Glu Phe Asp Tyr Leu His
195 200 205
Asp Met Ile Val Ala Gln Glu Met Val Arg Ser Asn Ala Arg Gly Glu
210 215 220

<210> 38291
<211> 79
<212> PRT
<213> A.fumigatus

<400> 38291
His Phe Ala Gly Phe Gln Asp Gly Asn Met Ala Gly Met Val Ile Ser
1 5 10 15
Leu Thr Ala Val Gln Gln Trp Leu Arg Asn Ala Pro Leu Arg Glu Lys
20 25 30
Val Thr Glu Glu Val Leu Ser Gly Arg Lys Lys Met Cys Leu Ala Ile
35 40 45
Thr Glu Ala Phe Ala Gly Ser Asp Val Ala Gly Leu Lys Thr Thr Ala
50 55 60

```
Lys Lys Thr Pro Asp Gly Lys His Tyr Ile Val Asn Gly Thr Lys
65                  70                  75

<210> 38292
<211> 153
<212> PRT
<213> A.fumigatus

<400> 38292
Ser Gly Ala Ile Ser Ala Leu Ser Ser Glu Arg Ser Ser Ser Ser Ser
1               5                   10                  15
Leu Ser Cys Val Lys Ser Thr Phe Pro Ser Thr Val Asp Ser Leu Pro
            20                  25                  30
Lys Cys Met Leu Leu Thr Val Asp Ala Arg Leu Ala Arg Met Ile Ser
        35                  40                  45
Leu Cys Glu Ser Asn Gln Ala Trp Leu Glu Ser Ile Ala Tyr Gln Met
    50                  55                  60
Cys Asn Met Thr Tyr Ala Gln Gln Ala Ala His Leu Gly Gly Pro Ile
65                  70                  75                  80
Gly Leu Leu Lys Ser His Ala Thr Arg Cys Ala Gln Glu Ile Ala Asp
                85                  90                  95
His Ala Thr Asn Ile Phe Gly Gly Arg Gly Ile Thr Gln Ser Gly Met
            100                 105                 110
Gly Lys Val Ile Glu Met Phe His Arg Thr Tyr Lys Phe Asp Ala Ile
        115                 120                 125
Leu Gly Gly Thr Glu Glu Ile Leu Ala Asp Leu Gly Val Arg Gln Ala
    130                 135                 140
Met Lys Lys Phe Pro Lys Ala Val Leu
145                 150

<210> 38293
<211> 161
<212> PRT
<213> A.fumigatus

<400> 38293
Gly Val Ser Leu Pro Leu Ser Glu Pro Glu Arg Ala Gly Trp Ile Asp
1               5                   10                  15
Val Val Arg Val Thr Asn Tyr Pro Asn Leu Asn Phe Thr Ile Ile Ile
            20                  25                  30
Asn Pro Ser Ser Gly Pro Gly Asn Gly Ser Gln Pro Ser Pro Gln Tyr
        35                  40                  45
Ala His Gln Ile Gln Arg Leu Asn Ala Tyr Pro Asn Val Arg Thr Val
    50                  55                  60
Gly Tyr Val Arg Thr Gly Tyr Ala Ser Arg Asn Leu Thr Thr Val Leu
65                  70                  75                  80
Gln Glu Val Gly Ile Tyr Ser Gly Trp Ala Ala Val Ser Pro Ser Leu
                85                  90                  95
Ala Met His Gly Ile Phe Phe Asp Glu Val Pro Ser Glu Tyr Thr Thr
            100                 105                 110
Ser Ala Ala Glu Tyr Leu Ala Thr Ile Asn Ala Ala Ala Lys Asn Ala
        115                 120                 125
Ser Gly Leu Arg Thr Asp Arg Thr Val Ser Asn Leu Ser Leu Phe Phe
    130                 135                 140
Arg Thr Cys Val Ser Val Arg Cys Pro Lys Pro Arg Lys Cys Ser Gly
145                 150                 155                 160
```

Val

<210> 38294
<211> 402
<212> PRT
<213> A.fumigatus

<400> 38294
Gln Ile Arg Arg Leu Thr Asp Val Gln Val Thr Ala Val Ser Ala Glu
1 5 10 15
His Ala Ala Arg Phe Glu Gly Leu Arg Thr Phe Val Pro Asp Ile Leu
20 25 30
Glu Lys Met Ala Val Val Pro Pro Ala His Arg Ser Leu Val Asp Thr
35 40 45
Arg Ala Ile His Ile Tyr Ala Val Asp Trp Pro Ser Lys Met Asp Tyr
50 55 60
Ala His Met Asn Pro Phe Ser Val Ser Pro Asp Gly Val Asp Tyr Thr
65 70 75 80
Gly Leu Gly Cys Phe Gln Met Gly His Asp Cys Ser Glu Lys Asp Ile
85 90 95
Ser Asp Leu Leu Glu Ala Gln Arg Ser Ile Arg Asp Leu Asp Leu Leu
100 105 110
Asp Arg Ile Gln Val Glu Glu Leu Arg Arg Met Ala Ala Asp Leu Arg
115 120 125
Ala Leu Leu Arg Ser Gln Lys Ala Ser Ile Arg Ala Gly Ala Met Ser
130 135 140
Ala Thr Ile Gln Glu Leu Ile Asp Leu Leu Ser Ser Gly Asn Gly Ala
145 150 155 160
Glu Asn Asp Arg Leu Arg Ile Trp Val Gly Leu His Ser Gly Phe Arg
165 170 175
Thr Arg Ser Glu Thr Gln Val Trp Gly Met Tyr Glu Ala Asp Ala Leu
180 185 190
Thr Gly Ser Leu Asp Ile Phe Ile Ser Gly Lys Thr Val Asp Arg Thr
195 200 205
Gly Thr Ile Leu His Thr Phe Leu Ser Arg Arg Asn Phe Ser Arg Tyr
210 215 220
Glu Cys Phe Lys Ala Glu Ile Ala Leu Ala Asp Ala Arg Asn Thr Leu
225 230 235 240
Ser Pro Lys Trp Asp Leu Pro Pro Arg Leu Val Asn Asp Ile Glu Asp
245 250 255
Leu Ser Pro Ala Glu Ala Leu Leu Trp Met Gln Arg Leu Thr Leu Ser
260 265 270
Thr Cys Lys Glu Ser Ser Ala Leu Val Ala Lys Val Arg Thr Cys Cys
275 280 285
Glu Tyr Gln Leu Leu Glu Val Pro Thr Leu Ser Gln Leu Arg Ser Met
290 295 300
Ala Ser Thr Gly Tyr Leu Ser Gly Glu Val Ser Ala Lys Gln Leu Val
305 310 315 320
Glu Gly Arg Leu Ala Trp Tyr Gln Ser Gln Gly Cys Ala Ser Leu Glu
325 330 335
Pro Arg Ser Ala Leu Ala Leu Phe Gln Glu Ile Asp Ala Arg Leu Pro
340 345 350
Gly Val Leu Ile Lys Ala Asp Ser Thr Ser Leu Ala Lys Ile Thr Glu
355 360 365
Val Met Glu Ala Ile Leu Arg Pro Gly Gln Ile Asp Ile Arg Ala Asp

```
    370                 375                 380
Phe Leu Ala Leu Ser Val Leu Ser His Arg Gly Leu Lys Ser Val Leu
385                 390                 395                 400
Arg Lys
```

<210> 38295
<211> 329
<212> PRT
<213> A.fumigatus

<400> 38295

```
Gly Arg Arg Gln Leu Ser Thr Ala Pro Ala Ala Val Thr Arg Tyr Leu
1               5                  10                  15
Asp Arg Leu Lys Arg Glu Thr Lys Pro Leu Arg Ser Arg Ser Ser Ala
            20                  25                  30
Lys Leu Glu Leu Lys Thr Phe Gly Val Tyr Leu Gly Ser Ile Pro Ser
        35                  40                  45
Pro Pro Ser Ser Glu Gln Leu Ser Ile Leu Ser Gln Trp Asp Val Val
    50                  55                  60
Val Val Asp Pro Leu Gln His Gly Val Leu Ser Gly Ile Tyr Asn Tyr
65                  70                  75                  80
Cys Ser Ala Ala His Val Leu Gly Arg Leu His Val Pro Ser Leu Val
                85                  90                  95
Asn Ile Glu Thr Ser Ile Thr Ile Asp Glu Val Ile Gln Gly Leu Cys
            100                 105                 110
Val Val Ala Gln Thr Val Ile Ser Asn Phe Thr His Pro Gln Ala Arg
        115                 120                 125
Glu Ser Pro Phe His Gly Val Leu Leu Ala Asp Trp Arg Lys His Phe
    130                 135                 140
Gln Pro Val Val Leu Asn Gln Leu Val Gln Tyr Leu Asn Gly Ile Gly
145                 150                 155                 160
Leu Asp Val Trp Leu Glu Met Ser Pro Pro Asp Tyr Leu Ser Glu Arg
                165                 170                 175
Glu Cys Arg Asp Ile Asp Gly Ser Arg Ile Leu Gly Ile Val Tyr Arg
            180                 185                 190
Asn Gly Thr Ile Phe Pro Asn Gly Asn Gln Arg Asp Tyr Phe Gln Met
        195                 200                 205
Glu Lys Met Arg Thr Val Met Arg Val Val Ala Ala Gln Lys Thr Met
    210                 215                 220
Gly Gly Cys Thr His Ala Met Trp Glu Thr Val Glu Asp Asp Val Asp
225                 230                 235                 240
Val Ser His His Val Leu Gly Arg Thr Phe Lys Trp Cys Ala Tyr Asn
                245                 250                 255
Ser Ala Met Thr Trp Ile Gly Pro Trp Ser Ala Leu Thr Asp Ala Asn
            260                 265                 270
Val Ala Ala Arg Arg Thr Val Lys Asn Glu Pro Leu Gly Ala Leu Met
        275                 280                 285
Trp Leu Lys Glu Asp Val Val Leu Lys Thr His Asp Asn Trp Arg Phe
    290                 295                 300
Asn Asp Arg Val Ser Ile His Ser Thr Val Ala Asp Thr Lys Thr Asp
305                 310                 315                 320
Arg Arg Ala Gly Tyr Arg Ser Leu Ser
                325
```

<210> 38296

<211> 66
<212> PRT
<213> A.fumigatus

<400> 38296
Phe Glu Ser Cys Asp Gly Ser Gln Ser Pro Glu Asn Val Ser Phe Lys
1 5 10 15
Ile Val Gln Arg Thr Ile Leu Cys Ala Leu Thr Asp Tyr Leu Val Phe
20 25 30
Leu Phe Asp Met Leu Asp Leu Arg Gln Ile Thr Tyr Ser Ala Glu Ile
35 40 45
Arg Ser Asn Ser Ala Asp Gly Lys Glu Glu Arg His Ala Leu Leu Val
50 55 60
Ser Phe
65

<210> 38297
<211> 638
<212> PRT
<213> A.fumigatus

<400> 38297
Gln Arg Arg Gln Thr Leu Leu Arg Glu Met Glu Arg Lys Asn Lys Ile
1 5 10 15
Gly Gly Ile Val Asp Arg Arg Phe Gly Glu Asp Asp Pro Thr Met Thr
20 25 30
Pro Glu Glu Arg Ala Ala Ala Arg Phe Ala Arg Glu Ser Gln Lys Lys
35 40 45
Leu Arg Lys Glu Ser Met Phe Asn Leu Glu Asp Asp Asp Glu Asp Asp
50 55 60
Phe Gln Leu Thr His Lys Gly Gln Thr Leu Thr Leu Gly Asp Asp Val
65 70 75 80
Pro Gln Asp Asp Phe Glu Glu Asp Leu Arg Gly Leu Glu Glu Asp Gln
85 90 95
Ser Asp Ser Glu Val Pro Arg Lys Arg Lys Arg Ile Leu Asp Asn Asp
100 105 110
Glu Leu Glu Asp Phe Val Phe Asp Asp Glu Asp Gly Glu Asp Gln Pro
115 120 125
Glu Arg Lys Lys Ser Lys His Glu Val Met Lys Glu Val Ile Ala Lys
130 135 140
Ser Lys Phe Tyr Lys Leu Glu Arg Gln Lys Ala Lys Glu Glu Asp Asp
145 150 155 160
Glu Leu Arg Glu Glu Leu Asp Lys Gly Leu Pro Asp Leu Phe Asp Met
165 170 175
Leu Arg Gly Val Lys Pro Pro Pro Lys Pro Glu Pro Ala Lys Asp Asp
180 185 190
Leu Glu Ser Met Asn Pro Asp Arg Ala Ala Leu Leu Lys Gly Thr Ala
195 200 205
Asp Asn Asp Pro Asn Lys Glu Tyr Asp Gln Arg Leu Lys Lys Leu Thr
210 215 220
Phe Asp Lys Arg Ser Gln Pro Thr Asp Arg Thr Lys Thr Ala Glu Glu
225 230 235 240
Lys Ala Glu Glu Glu Ala Gln Arg Leu Lys Thr Leu Glu Glu Glu Arg
245 250 255
Leu Arg Arg Met Arg Gly Glu Gln Glu Ser Asp Glu Glu Glu Asp Asp
260 265 270

```
Glu Glu Gly Glu Ser Glu Thr Gly Gly Glu Asp Ser Asn Asp Glu Ser
        275                 280                 285
Ile Pro Asp Asp Ala Glu Ala Phe Gly Leu Lys Gln Pro Ser Pro Gln
    290                 295                 300
Thr Asn Lys Gly Pro Glu Met Gly Val Glu Asp Glu Asp Asp Phe Ile
305                 310                 315                 320
Ile Asp Asp Asp Leu Val Glu Thr Arg Ser Asn Val Ser Leu Ser Phe
                325                 330                 335
Asp Glu Ser Asp Gly Glu Glu Gly Ser Ser Glu Glu Lys Ser Glu Glu
            340                 345                 350
Glu Asp Glu Glu Glu Asp Glu Leu Ile Asn Gly Leu Thr Leu Pro Thr
        355                 360                 365
Ser Lys Ser Gly Glu Ser Thr Val Ala Ala Asp Gly Ala Gly Lys Arg
    370                 375                 380
Ser Glu Gly Leu Ala Tyr Thr Tyr Pro Cys Pro Glu Asp His Glu Ser
385                 390                 395                 400
Phe Leu Glu Val Ile Lys Asp Val Pro Met Asn Asp Leu Pro Thr Val
                405                 410                 415
Ile Gln Arg Ile Arg Ala Leu His His Pro Arg Leu His Ala Asp Asn
            420                 425                 430
Lys Thr Lys Leu Gly Arg Phe Ala Ala Val Leu Val Arg His Val Ala
        435                 440                 445
Tyr Met Ala Glu Gln Pro Glu His Pro Pro Phe Asn Val Leu Glu Ala
    450                 455                 460
Ile Leu Arg His Ile His Ser Leu Ala Lys Ser His Pro Glu Ser Val
465                 470                 475                 480
Cys Met Ala Tyr Arg Asn Tyr Leu Arg Glu Ile Ala Thr Asp His Pro
                485                 490                 495
Leu Ser Leu Arg Ala Gly Asp Leu Val Ile Leu Thr Gly Ile Ala Thr
            500                 505                 510
Thr Phe Pro Thr Ser Asp His Phe His Ala Ile Ala Thr Pro Ala Tyr
        515                 520                 525
Leu Cys Leu Ala Arg Tyr Leu Gly Gln Gly Ala Ile Asn Ser Leu Gly
    530                 535                 540
Asp Tyr Ala Thr Gly Ala Tyr Ala Ala Ser Leu Cys Leu Gln Tyr Gln
545                 550                 555                 560
Thr Ile Ser Lys Arg Tyr Met Pro Glu Phe Ile Asn Tyr Val Leu Asn
                565                 570                 575
Ala Leu Cys Asn Leu Cys Pro Thr Glu Pro Thr Ser Ser Leu Gly Phe
            580                 585                 590
Phe Pro Ala Arg Gly Ser Gln Glu Ser Leu Arg Leu Ile Pro Ser Lys
        595                 600                 605
Gln Leu Asn Pro Arg Lys Leu Arg Phe Trp Asp Ile Ala Thr Ala Gln
    610                 615                 620
Ser Asp Arg Arg Gly Leu His Lys Pro Asn Arg Asp Thr Arg
625                 630                 635

<210> 38298
<211> 153
<212> PRT
<213> A.fumigatus

<400> 38298
Phe Gly His Leu Lys Ser Gly Ala Ala Glu Phe Pro Pro Gly Glu Ser
1               5                   10                  15
Gly Glu Pro Thr Phe Leu Arg Thr Ile Ile Glu Lys Cys Ile Val Leu
```

```
            20                  25                  30
Lys Ile Ser Val Glu His Trp Thr Thr Leu Leu Gln His Gln His Ile
        35                  40                  45
Thr Met Pro Pro Ser Gln Leu Lys Gln Leu Lys Ala Ser Leu Arg Glu
    50                  55                  60
Ser Gly Val Leu Ala Pro Gln Gln Ser Lys Lys Gln Lys Arg Gln Asn
65                  70                  75                  80
Ala Lys Ala Gly Val Ser Ala Gln Asn Arg Ala Gln Arg Asn Ala Ala
                85                  90                  95
Leu Gln Ala Ile Arg Asp Arg Phe Asn Pro Phe Glu Ile Lys Val Thr
            100                 105                 110
Ser Arg Asn Lys Phe Asp Val Thr Thr Arg Asp Gly Gly Ser Lys Pro
        115                 120                 125
Ala Ala Gly Leu Ser Lys Ala Gly Val Thr Lys Ser Leu Gly Glu Glu
    130                 135                 140
Lys Val Gly Trp Met Ser Phe Lys Arg
145                 150

<210> 38299
<211> 117
<212> PRT
<213> A.fumigatus

<400> 38299
Val Ser Ala Thr His Gln Val Ser Thr Leu Thr Ser Ser Pro Asn Lys
1               5                   10                  15
Cys His Pro Thr Asp Gly Ala Thr Asp Ser Lys Gln Lys Arg Gln Pro
            20                  25                  30
Ser Glu Pro Asn Asn His Asp His Glu Thr Gly Asn Lys Ala Thr Gln
        35                  40                  45
Lys Lys Thr Met Val Cys Ala Lys Cys Gln Lys Lys Leu Lys Ser Thr
    50                  55                  60
Glu Leu Val Thr Pro Gly Val Lys Arg Lys Ser Glu Met Tyr Tyr Gly
65                  70                  75                  80
Ser Pro Ala Thr Thr Leu Gly Gly Gly Gly Gly Ala Gly Pro Gly Pro
                85                  90                  95
Ala Thr Lys Ser Lys Pro Thr Leu Gly Asn Thr Gly Ile Gly Lys Val
            100                 105                 110
Cys Ser Ile Ser Phe
        115

<210> 38300
<211> 418
<212> PRT
<213> A.fumigatus

<400> 38300
Ser Leu Tyr Gln Thr Arg Glu Glu Tyr Leu Asn Ile Pro Pro Pro Thr
1               5                   10                  15
Arg Leu Gly Val Ser Gln Ser Ser Lys Ser Leu Pro Ser Ala Leu Asn
            20                  25                  30
Arg Phe Gln Lys Arg Leu Val His Gln Leu Ile Glu Val Glu Tyr Pro
        35                  40                  45
Ser Leu Val Ala Ile Ser Arg Pro Asp Phe Ile Gln Ile Ile Asp Tyr
    50                  55                  60
Asn Glu Glu Arg Glu Arg Ser Val Arg Glu Gln Arg Val Lys Lys Ile
```

```
65                  70                  75                  80
Gln Glu Arg Thr Trp Lys Gln Thr Gly Phe Arg Trp Val Ala Glu Ala
                85                  90                  95
Leu Ala Gly Gly Asp Leu Thr Asn Leu His Ser Gly Tyr Phe Ile Gly
            100                 105                 110
Ile Met Ala Ser Ser Ala Ala Val Glu Pro Lys Tyr Pro Leu Asn Glu
        115                 120                 125
Phe Ser Asp Lys Leu Lys Gln Arg Leu Lys Glu His Arg Pro Val Leu
    130                 135                 140
Val Gly His Asn Ile Phe Ser Asp Leu Ile Tyr Phe Cys Arg Cys Phe
145                 150                 155                 160
Phe Gly Pro Leu Pro Ser Lys Val Glu Glu Phe Gln Ser Met Ala His
                165                 170                 175
Glu Leu Phe Pro Val Leu Met Asp Thr Lys Tyr Met Ala Thr His Asn
            180                 185                 190
Cys Gly Ser Ile Asn Pro Arg Ser Ser Leu Ser Glu Leu Asn Glu Asn
        195                 200                 205
Leu Ala Lys Lys Ala Ile Pro Lys Ile Ser Ala His Asp Phe Leu Asp
    210                 215                 220
Arg Gln Phe Glu Leu Met Ala Lys Lys Thr Thr Gly Ile His Pro Gln
225                 230                 235                 240
His Ser Lys Tyr Thr Thr Gln Lys Ile Asp His Glu Ala Gly Tyr Asp
                245                 250                 255
Ser Leu Leu Thr Ala Gln Val Phe Ile Arg Leu Ser Ala Gln Leu Arg
            260                 265                 270
Glu Gly Gly Val Glu Pro Leu Gln Gln Lys Ser Thr Lys Asp Ala Gln
        275                 280                 285
Asp Thr Ser Tyr Leu Gln Gln Thr Tyr Arg Glu Val Ala Pro Asp Ala
    290                 295                 300
Tyr Ala Glu Gly Arg Leu Gln Pro Thr Ser Gly Ser Ala Gln Lys Ala
305                 310                 315                 320
Phe Glu Gln Lys Pro Arg Pro Ile Ser Thr Glu Ser Pro Lys Pro Pro
                325                 330                 335
Met Ser Arg Val Leu Glu Thr Arg Phe Asp Leu Leu Glu Ile Glu Glu
            340                 345                 350
Ala Ile Asp Glu Val Asp Ser Asn Ile Pro Ile Asn Asp Arg Arg Leu
        355                 360                 365
Ser Leu Gly Pro Thr Asp Ser Val Glu Val Met Gln Lys Ala Val Asn
    370                 375                 380
Gly Glu Leu Ile Pro Arg Leu Gly Ala Glu Phe Trp Lys Val Tyr Gly
385                 390                 395                 400
Asn Lys Leu Arg Val Phe Gly Thr Leu Glu Arg Val Cys Val Met Gly
                405                 410                 415
Ala Pro
```

<210> 38301
<211> 104
<212> PRT
<213> A.fumigatus

<400> 38301

```
Ser Pro Ala Gln Ala Ala Glu Arg Thr Leu Glu Gln Ser Ala Gly Val
1               5                   10                  15
Asn Met Asn Thr Trp Met Val Gly Tyr His Pro Val Gly His His Val
            20                  25                  30
```

```
Tyr Asn Phe Arg His Pro Lys Thr Asp Pro Ala Thr Gly Gln Gln Trp
        35                  40                  45
Leu Gly Glu Lys Thr Phe Phe Ile Lys Gly Arg Ile Met Ala Gly Gln
    50                  55                  60
Ala Asp Leu Ser Ala Asn Val Gln Gly Leu Gln Asp Phe Lys Trp Leu
65                  70                  75                  80
Ala Lys Glu Glu Ile Ala Lys Phe Val Leu Pro Gln Tyr Tyr Ser Asn
                85                  90                  95
Ile Lys Asn Met Leu Ala Glu Arg
            100
```

<210> 38302
<211> 242
<212> PRT
<213> A.fumigatus

<400> 38302

```
Leu Phe Arg Thr Leu Ile Arg Ser Phe Ser Asp Phe Tyr Ser Gly Pro
1               5                   10                  15
Ser Ile Val Asp Ser Arg Val Cys Arg Ser Cys Gln Glu Thr Leu Val
            20                  25                  30
Arg Arg Asn Tyr Ala Ser Thr Ala Ala Pro Ser Ser Ala Ser Glu Thr
        35                  40                  45
Val Ser Thr Pro Ala Ser Thr Phe Pro Val Val Lys Pro Thr His Ile
    50                  55                  60
Ile Lys Ala Gly Val Ala Leu Ser Arg Pro Pro Gln Ile Thr Arg Asp
65                  70                  75                  80
Leu Thr Pro Phe Glu Lys Ala Tyr Phe Phe Tyr Gln Lys Arg Leu Asn
                85                  90                  95
Glu Arg Leu Ala Leu Pro Phe Thr Lys Tyr Phe Tyr Phe Lys Arg Gly
            100                 105                 110
Thr Pro Ala Asp Glu Asp Trp Lys Arg Lys Ile Arg Glu Arg Gln Thr
        115                 120                 125
Pro Ala Arg Asp Ile Gly Lys Tyr Asn Ala Tyr Ser Lys Glu Ala Trp
    130                 135                 140
Asn Asp Glu Leu Leu Val Gly Ala Val Glu Ser Glu Pro Glu His Gln
145                 150                 155                 160
Ile Glu Met Leu Val Arg Asp Ala Glu Ser Thr Ala Asn Ala Thr Ser
                165                 170                 175
Gln Asp Thr Ser Lys Lys Glu Glu Ile Pro Arg Pro Phe Pro Arg Val
            180                 185                 190
Thr Glu Ala Asp Gln Lys Asn Asp Gln Arg Ser Leu Asn Arg Ala Leu
        195                 200                 205
Gln Arg Thr Leu Tyr Leu Leu Val Gln Thr Lys Glu Gly Tyr Trp Lys
    210                 215                 220
Leu Pro Ser Ser Pro Val Glu Thr Gly Glu Ser Leu Arg Val Val Ser
225                 230                 235                 240
Ser Asp
```

<210> 38303
<211> 427
<212> PRT
<213> A.fumigatus

<400> 38303

```
Leu Trp Arg Lys Cys Lys Leu Pro Ala Pro His Thr Asn Phe Leu Ala
1               5                  10                  15
Ala Lys Ala Asp Ser Val Gly Glu Glu Gln His Tyr Leu Pro Gly Arg
            20                  25                  30
Val Asp Glu Thr Gln Arg Leu Thr Arg Ser Leu Asp Gly Pro Phe Val
        35                  40                  45
Ser Gln Cys Phe Ser Ser Leu Ser Pro Cys Val Pro Ile Thr Ser Leu
    50                  55                  60
His Pro Arg Asn Asn Leu Thr Lys Gly Gly Asn Arg Tyr Leu Ile Gly
65                  70                  75                  80
Cys Tyr Cys Phe His Leu Ala Ser Ser Thr Pro Gln Trp His His Tyr
                85                  90                  95
Leu Leu Ser Arg Arg Arg Arg Leu Trp Thr Ile Ser Arg Arg Gln Thr
            100                 105                 110
Ala Ala Cys Leu Pro Arg Lys Ser Lys Arg Cys Arg Arg Gly His Cys
        115                 120                 125
Glu Leu Thr Arg Ile Cys Arg Leu Leu Leu Ala Asp Arg Leu Tyr Met
    130                 135                 140
Trp Pro Lys Thr Cys Thr Thr Arg Thr Arg Gly Ser Ser Ser Ser Ser
145                 150                 155                 160
Phe Arg Thr Arg Lys Ile Ile Gly Tyr Gly His Ala Val Ser Gln Ala
                165                 170                 175
Glu Glu Pro Phe Leu Asp Leu Thr Leu His Glu Asp His Leu Thr Val
            180                 185                 190
Asp Ser Asn Glu Asp Gly Phe Thr Glu Asn Asp Val Arg Ala Ile Cys
        195                 200                 205
Ser Ile His Gln Ser Ser Lys Lys Gln Thr Gly Gly Tyr Ile Gly His
    210                 215                 220
Lys Gly Ile Gly Phe Lys Ser Val Phe Lys Val Ala Tyr Lys Val Ser
225                 230                 235                 240
Ile Gln Ser Gly Pro Phe Ser Phe Tyr Phe Glu His His Gln Gly Asp
                245                 250                 255
Ser Gly Leu Gly Met Ile Thr Pro Phe Asn Glu Glu Pro Gln Glu Leu
            260                 265                 270
Pro Pro Ser Val Asn Thr Arg Ile Thr Leu Phe Phe Ile Ser Ile Ser
        275                 280                 285
Asp Phe Glu Ala Arg Ala Ser Glu Leu Arg Glu Ile Pro Asp Thr Met
    290                 295                 300
Leu Leu Phe Leu Arg Lys Leu Gln Arg Leu Thr Val Asn Ile Pro Ser
305                 310                 315                 320
Leu Gln Ser Gln Ile Ser Phe Thr Arg Phe Glu Asp Lys Ser Lys His
                325                 330                 335
Leu Ile Thr Leu Thr Lys Glu Thr Asn Gly Glu Gln Val Thr Lys Phe
            340                 345                 350
Tyr His Leu Glu Lys Thr Thr Leu Ser Asn Leu Pro Gln His Leu Ser
        355                 360                 365
Arg Pro Gly Gln Pro Glu Val Asp Leu Ile Leu Ala Phe Pro Val Gln
    370                 375                 380
Glu Asp Tyr Ser Pro Leu Ile Gln Ala Gln Tyr Val Tyr Ser Phe Leu
385                 390                 395                 400
Pro Met Arg Asp Glu Gly Phe Asn Val Ser Asn Phe Leu Leu Leu Arg
                405                 410                 415
Thr Leu Ile Glu Tyr Thr Pro Leu Ile Ser Val
            420                 425
```

<210> 38304

<211> 141
<212> PRT
<213> A.fumigatus

<400> 38304
Phe Leu Ile Gln Ser Asp Phe Ile Thr Gln Ala Ser Arg Gln Gly Val
1 5 10 15
His Arg Cys Asp Arg Asn Tyr Ala Ile Arg Glu Gly Ile Ser His Leu
20 25 30
Phe Leu Gln Ala Val Ala Tyr Phe Cys Lys His Thr Ser Leu Arg Tyr
35 40 45
Glu Trp Leu Gln Tyr Leu Pro Gly Thr His Ile Arg Asp Pro Phe Trp
50 55 60
Ala Asp Leu Arg Glu Met Ile Phe Asp Cys Leu Lys Gly Ser Lys Ile
65 70 75 80
Leu Tyr Ser Arg Arg Gly Ile Leu Lys Ser Pro Thr Gln Leu Glu His
85 90 95
Leu Ser Ser Gln His Cys Asp Arg His Gly His Pro Leu Met Asp Asp
100 105 110
Ile Glu Pro Glu Val Tyr Leu Ala Gln Ser Tyr Asp Trp Asn Arg His
115 120 125
Ala Glu Asn Leu Met Glu Leu Gly Val Lys Asn Leu Ser
130 135 140

<210> 38305
<211> 104
<212> PRT
<213> A.fumigatus

<400> 38305
Ser Tyr Lys Arg Gly Gln Ser Val Leu Asp Arg Leu Leu Leu Phe Ser
1 5 10 15
Ser Cys Ile Leu Asp Ser Pro Met Ala Pro Leu Ser Leu Glu Gln Ala
20 25 30
Gln Ala Ile Val Asp Asp Ile Gln Glu Thr Asn Gly Gly Leu Pro Pro
35 40 45
Glu Glu Lys Gln Ala Leu Ser Gln Arg Ser Leu Arg Ala Tyr Lys Asn
50 55 60
Leu Gln Thr Ile Ala Gly Arg Ser Ile Val His Val Ala Glu Asp Leu
65 70 75 80
Tyr Asp Thr Asp Thr Arg Phe Leu Phe Glu Leu Ile Gln Asn Ala Glu
85 90 95
Asp Asn Trp Leu Trp Pro Cys Cys
100

<210> 38306
<211> 61
<212> PRT
<213> A.fumigatus

<400> 38306
Trp Met Thr Ile Ser Phe Ser Gly Leu Gly Thr Ser Ser Lys Ser Ala
1 5 10 15
Lys Glu Met Lys Gln Phe Phe Leu Ala His Asp Arg Ile Leu Ser Val
20 25 30
Lys Leu Asp Ser Ser Ser Leu Ile Asp Trp Ser Ser Phe Gly Met Tyr

```
        35                  40                  45
Pro Leu Phe Ala Thr Ile Asp Val Phe Thr Gly Glu Cys
    50                  55                  60

<210> 38307
<211> 367
<212> PRT
<213> A.fumigatus

<400> 38307
Asn Thr Arg Asn Arg Phe Ala Val Met Ala Asp Glu Gln Lys Val Thr
1               5                  10                  15
Pro Ala Ala Thr Asn Ala Asn Ala Glu Ala Glu Lys Asp Val Gln Asn
            20                  25                  30
Val Leu Ala Glu Leu Lys Gly Glu Ala Gly Glu Ala Pro Lys Pro Ser
        35                  40                  45
Glu Gln Pro Thr Glu Asp Lys Lys Gly Glu Ala Pro Thr Glu Asp Ala
    50                  55                  60
Glu Glu Ala Arg Ile Val Ala Ala Ala Ala Lys Leu Gly Glu Gln Ser
65                  70                  75                  80
Ala Lys Ala Glu Glu Gln Lys Glu Gly Lys Ala Glu Glu Arg Asp Thr
                85                  90                  95
Arg Gly Arg Gly Asn Arg Arg Asn Asn Val Lys Phe Asp Pro Ser Thr
            100                 105                 110
Leu Glu Val Thr Asp Asn His Asp Glu Ile Arg Lys Gln Val Glu Phe
        115                 120                 125
Tyr Phe Ser Asp Ser Asn Leu Pro Met Asp Lys Phe Leu Leu Ser Lys
    130                 135                 140
Val Gly Gly Ser Ser Asn Arg Pro Val Pro Leu Glu Leu Leu His Ser
145                 150                 155                 160
Phe Lys Arg Met Arg Arg Phe Gln Pro Phe Ser Ala Ile Val Glu Ala
                165                 170                 175
Leu Lys Ser Ser Lys Thr Leu Glu Leu Thr Asp Asn Asp Thr Cys Val
            180                 185                 190
Arg Arg Lys Val Pro Leu Pro Glu Ser Val Thr Glu Lys Pro Asp Pro
        195                 200                 205
Ser Val Thr Lys Val Phe Glu Asp Gln Ala Met Ser Arg Ser Ile Tyr
    210                 215                 220
Ala Lys Gly Phe Gly Glu Glu Thr Pro Thr Thr Gln Ile Asp Ile Glu
225                 230                 235                 240
Ala Phe Phe Ala Pro Tyr Gly Pro Val Asn Ala Ile Arg Leu Arg Arg
                245                 250                 255
Thr His Asp Arg Ile Phe Lys Gly Ser Val Phe Val Glu Phe Ala Thr
            260                 265                 270
Glu Glu Lys Gln Lys Glu Phe Leu Ala Leu Asp Pro Lys Pro Gln Trp
        275                 280                 285
Lys Gly Gln Asp Leu Leu Ile Lys Ser Lys Lys Asp Tyr Cys Glu Glu
    290                 295                 300
Lys Val Arg Asp Ile Glu Ala Gly Arg Ile Lys Pro Ser Arg Gly Arg
305                 310                 315                 320
Gly Gly Phe Arg Gly Arg Gly Arg Gly Gly Pro Arg Gly Gly Asp Lys
                325                 330                 335
Arg Asp Trp Arg Glu Arg Arg Ala Glu Asp Gln Lys Asn Gly Phe Gly
            340                 345                 350
Lys Pro Gln Gly Glu Gln Arg Arg Glu Val Gln Lys Asp Ala Arg
        355                 360                 365
```

<210> 38308
<211> 96
<212> PRT
<213> A.fumigatus

<400> 38308
Pro Val Ala Val Leu Phe Arg Leu Lys Pro Gly Val Thr Gln Asp Gln
1 5 10 15
Leu Thr Asn Trp Val Thr Val Ala Glu Ser Met Val Gly Lys Ile Pro
20 25 30
Gly Leu Val Ser Leu Lys Ala Gly Gln Pro Leu Pro Ile Ser Val Pro
35 40 45
Arg Ala Lys Gly Phe Asp Met Gly Ile Val Ala Val Met Glu Ser Pro
50 55 60
Asp Ala Val Ala Ser Tyr Ala Thr His Pro Val His Leu Glu Phe Val
65 70 75 80
Ser Ala Tyr Pro Val Thr Gly Ala Phe Glu Val Ala Asp Glu Gly Leu
85 90 95

<210> 38309
<211> 384
<212> PRT
<213> A.fumigatus

<400> 38309
Ile Leu Arg Gly Tyr His Asp Cys Pro Leu His Val Thr Glu Val Gly
1 5 10 15
Ser Asn Ile Pro Ile Leu Leu Tyr Glu Thr Met His Ala Asn Leu Ala
20 25 30
His Arg Gly Ile Phe Leu Pro Val Met Ile Val Thr Leu Pro Leu Pro
35 40 45
Val His Leu Arg Arg Arg Phe Pro Ala Gln Met Val Leu Met Leu Gln
50 55 60
Trp Phe Ala Phe Gly Met Phe Ser Val Leu Leu Ile Ile Pro Trp Leu
65 70 75 80
Leu Cys Val Tyr Arg Leu Val Thr His Ser Pro Gly Arg Thr Lys Arg
85 90 95
Ile Lys Gln Val Leu Asp Asp Arg Thr Ala Pro Lys Thr Val Val Val
100 105 110
Met Pro Val Tyr Lys Glu Ala Pro Glu Thr Leu Ile Arg Ala Ile Asp
115 120 125
Ser Val Val Asp Cys Asp Tyr Pro Ala Asn Cys Ile His Val Phe Leu
130 135 140
Ser Tyr Asp Gly Cys Leu Ile Asp Glu Ser Tyr Leu Arg Leu Ile Glu
145 150 155 160
His Leu Gly Ile Pro Ile Thr Leu Glu Ser Tyr Pro Gln Ser Ile Asp
165 170 175
Val Thr Tyr Lys Asp Ala Arg Ile Thr Val Ser Arg Phe Lys His Gly
180 185 190
Gly Lys Arg His Cys Gln Lys Gln Thr Phe Arg Leu Ile Asp Met Val
195 200 205
Tyr Ala Asp Tyr Leu Glu Arg His Asp Asn Leu Phe Val Leu Phe Ile
210 215 220
Asp Ser Asp Cys Ile Leu Asp Arg Val Cys Leu Gln Asn Phe Met Tyr
225 230 235 240

```
Asp Met Glu Leu Lys Pro Gly Ser Lys His Asp Met Leu Ala Met Thr
                245                 250                 255
Gly Val Ile Thr Ser Thr Thr Asp Arg Gly Ser Leu Leu Thr Leu Leu
            260                 265                 270
Gln Asp Met Glu Tyr Val His Gly Gln Leu Phe Glu Arg Ser Val Glu
        275                 280                 285
Ser Ser Cys Gly Ala Val Thr Cys Leu Pro Gly Ala Leu Thr Met Leu
    290                 295                 300
Arg Phe Ser Ala Phe Arg Lys Met Ala Lys Tyr Tyr Phe Ala Asp Lys
305                 310                 315                 320
Ala Glu Gln Cys Glu Asp Phe Phe Asp Tyr Gly Lys Cys His Leu Gly
                325                 330                 335
Glu Asp Arg Trp Phe Thr His Leu Phe Met Gly Arg Arg Ser Gly Asn
            340                 345                 350
Val Ile Gln Ser Arg Cys Cys Ala Gly Ala Phe Trp Gln Asp Leu Arg
        355                 360                 365
Leu Trp Gln Thr Phe Pro Ala Val Leu Leu Lys Pro Arg Pro Val Leu
    370                 375                 380
```

<210> 38310
<211> 72
<212> PRT
<213> A.fumigatus

<400> 38310

```
Phe Gly Thr Gln Gly Asn Phe Leu Ala Cys His Asp Arg Asp Pro Pro
1               5                   10                  15
Ala Pro Gly Ser Leu Glu Thr Ala Ile Pro Gly Ser Asp Gly Thr Tyr
            20                  25                  30
Ala Ser Met Val Arg Val Arg Asp Val Phe Arg Ala Ala Tyr Asn Pro
        35                  40                  45
Leu Ala Phe Val Arg Leu Gln Thr Gly Asp Thr Phe Thr Gly Gln Asn
    50                  55                  60
Gln Ala Tyr Gln Ala Ser Phe Gly
65                  70
```

<210> 38311
<211> 491
<212> PRT
<213> A.fumigatus

<400> 38311

```
Leu Ser Ala Leu Ser Ser His Ala Leu Pro Arg Pro Arg Lys Tyr Gln
1               5                   10                  15
Gly Ala Leu Tyr Lys Glu Lys Pro Thr Lys Asn Gln Arg Arg Asn Gln
            20                  25                  30
Asn Gln Asn Gln Asn Gln Asn Gln Asn Gln Asn Gln Asn Gln Asn Gln
        35                  40                  45
Asn Gln Asn Gln Lys Asn Asn Thr Asn Gly Lys His Arg Ala Pro Tyr
    50                  55                  60
Val Glu Asp Gly Pro Asp Ser Asp Thr Ser Lys Gly Ser Ala Pro Pro
65                  70                  75                  80
Pro Ala Pro Ser Pro Pro Pro Thr Ser Thr Glu Lys Pro Ser Ala Thr
                85                  90                  95
Thr Thr Glu Glu Ser Lys Ser Val Asn Val Leu Asp Tyr Leu Val Thr
            100                 105                 110
```

```
Ala Asp Thr Pro Asn Ala Ser Lys Val Ser Leu Gly Glu Pro Lys Glu
        115                 120                 125
Gln Arg Lys Met Val Asp His Ala Pro Ser Val Phe Glu Pro Ser Lys
    130                 135                 140
Ala Ser Val Gln Val Glu Thr Asp Asn Asp Asp Glu Lys Lys Asp Tyr
145                 150                 155                 160
Asp Val Ala Tyr Glu Glu Asn Gly Phe Ser Tyr Gly Ala Gly Pro Ile
                165                 170                 175
Gln Pro Ser Val Tyr Pro Gly Lys Ala Pro Asn Val Ser Met Glu Phe
            180                 185                 190
Met Thr Pro Ala Pro Lys Lys Lys Lys Asp Arg Thr Arg Gly Glu Asn
        195                 200                 205
Asp Lys Ala Ser Ala Thr Thr Ser Asp Lys Lys Arg Lys Arg Arg Thr
    210                 215                 220
Asp Asp His Asn Met Asp Ile Asp Ser Pro Met Ala Glu Ala Pro Ser
225                 230                 235                 240
Ser Val Val Asn Asn Pro Gly Thr Pro Met Leu Lys His Ser Gly Leu
                245                 250                 255
Thr Gly Gly Leu Asn Arg Met Met Arg Ser Pro Ser Thr Glu Asp Gly
            260                 265                 270
Asn Glu Ser Lys Glu Asp Ser Arg Arg Arg Tyr Gln Asp Pro Ser Ser
        275                 280                 285
Pro Ile Lys Arg Thr Arg Arg Asp His Lys Asp Gly Asp Asn Asp Ser
    290                 295                 300
Gly Leu Gly Ile Ser Ile Lys Gln Lys Ala Gly Arg Leu Val Ser Ser
305                 310                 315                 320
Met Phe Gly Gly Ser Ala Val Ser Gly Ser Ser Asn Asn Ser Gln Glu
                325                 330                 335
Pro Glu Ala Arg Arg Ser Lys Gln Ser His Arg Val Ala Ser Pro Ser
            340                 345                 350
Gln Asp Gln Met Pro Ser Asp Ser Arg Lys Thr Lys Arg Lys Val Ser
        355                 360                 365
Ala Gln Ala Gly Gly Asp Arg Pro Ser Gln Arg Leu Lys Gln Ile Glu
    370                 375                 380
Tyr Asn Gly Ser Gln His Gly Asp Asp Gly Arg Glu Val Val Val Tyr
385                 390                 395                 400
Arg Gln Glu Asn Ile Pro Asn Asp Leu Gln Arg Gln Met Ala Ala His
                405                 410                 415
Phe Leu Ser Leu Val Thr Lys Gly Pro Glu Ser Ser Arg Gly Phe Ser
            420                 425                 430
Val Asn Lys Val Leu Lys Arg Phe His Arg Glu Phe Thr Asp Glu Phe
        435                 440                 445
Asp Asp Asp Arg Gly Arg Gly Gln Gly Arg Ser Arg Ala Asp Arg Glu
    450                 455                 460
Arg Arg Ile Glu Asp Glu Lys Asp Leu Trp Arg Thr Leu Arg Leu Lys
465                 470                 475                 480
Arg Asn Glu Arg Gly Glu Val Val Leu Phe Phe
                485                 490
```

<210> 38312
<211> 825
<212> PRT
<213> A.fumigatus

<400> 38312
Gly Pro Ser Thr Thr Ile Arg Val Pro Pro Trp Arg Pro Leu Asn Asn

```
1               5                   10                  15
Asn Thr Pro Arg Arg Lys Asn Ala Arg Arg Arg Gly Arg Gly Gly Arg
            20                  25                  30
Gly Gly Arg Gly Ser Val Arg Phe Thr Pro Thr Val Pro Asn Thr Gln
        35                  40                  45
Ser Glu Ala Gln Glu Thr Ser Gln Leu Pro Glu Ser Glu Val Ser Ser
    50                  55                  60
Leu Asn Val Gln Pro Asn Glu Ser Ser Arg Ala Ala Arg Gly Ser Arg
65                  70                  75                  80
Gly Gly Lys Arg Gly Gly Arg Gly Gly Gly Ala Ser Leu Asp Lys Gly
                85                  90                  95
Arg Arg Arg Gly Arg Gly Arg Gly Glu Asp Ser Lys Ala Val Ser Gly
            100                 105                 110
Val Leu Gly Gly Arg Thr Phe Glu Gly Arg Leu Ser Lys Pro Glu Arg
        115                 120                 125
Ala Ser Asp Glu Asp Gln Pro Asp Ile Ala Gly Asp Leu Ser Leu Arg
    130                 135                 140
Ala Asp Ala Pro Glu Phe Val Pro Ala Ala Pro Ala Asp Gly Val Ile
145                 150                 155                 160
Pro Asn Gly Ile Thr Ser Ser Ala Ala Ser Ser Thr Ile Gly Lys Gly
                165                 170                 175
Lys Ser Lys His Ile Gln Ala Arg Pro Pro Lys Val Thr Thr Lys Ser
            180                 185                 190
Thr Ala Pro Asp Ile Ala Thr Arg Ile His Glu Asp Ile Ala His Asn
        195                 200                 205
Leu Tyr Glu Cys Pro Ile Cys Thr Ser Glu Leu Gly Arg Arg Ser Arg
    210                 215                 220
Val Trp Ser Cys Gly Leu Cys Trp Thr Val Phe His Leu Ser Cys Val
225                 230                 235                 240
Lys Lys Trp Ser Lys Asn Glu Gly Ser Ala Ala Gln Asp Ala Ala Arg
                245                 250                 255
Arg Gln Ala Glu Gly Glu Pro Ser Ala Pro Arg Ala Trp Arg Cys Pro
            260                 265                 270
Gly Cys Asn Leu Pro His Glu Ile Phe Pro Ser Thr Tyr Ser Cys Trp
        275                 280                 285
Cys Glu Lys Glu Val Asp Pro Arg Pro Leu Pro Gly Leu Pro Pro His
    290                 295                 300
Ser Cys Gly Gln Thr Cys Ser Arg Pro Arg Lys Gly Cys Pro His Pro
305                 310                 315                 320
Cys Asp Ala Thr Cys His Ala Gly Pro Cys Ser Pro Cys Thr Ala Met
                325                 330                 335
Gly Pro Thr Gln Asp Cys Phe Cys Gly Arg Asn Ser Ser Thr Lys Arg
            340                 345                 350
Cys Gln Asp Thr Asp Tyr Glu Asn Gly Trp Ser Cys Gly Glu Ile Cys
        355                 360                 365
Ser Asp Leu Leu Pro Cys Gly Glu His Thr Cys Thr Arg Pro Cys His
    370                 375                 380
Glu Gly Leu Cys Gly Ala Cys Glu Val Lys Ile Glu Gly Arg Cys Tyr
385                 390                 395                 400
Cys Gly Lys Val Gln Thr Glu Met Leu Cys Ser Ser Lys Asp Glu Glu
                405                 410                 415
Phe Glu Ser Gln Met Ala Arg Gly Asp Asp Gly Thr Ile Asp Glu Trp
            420                 425                 430
Ile Gly Cys Phe Ser Cys Gly Asp Arg Cys Ser Arg Pro Phe Asp Cys
        435                 440                 445
Gly Val His Phe Cys Glu Lys Asp Cys His Pro Gln Asp Ala His Pro
```

```
    450                 455                 460
Ala His Cys Pro Arg Ser Pro Asp Val Val Ser His Cys Pro Cys Gly
465                 470                 475                 480
Lys Thr Pro Leu Thr Glu Met Ser Asp Phe Ser Pro Arg Met Ser Cys
                485                 490                 495
Asp Asp Pro Ile Pro Asn Cys Ser Lys Pro Cys Gly Lys Met Leu Asp
            500                 505                 510
Cys Gly His Ser Cys Asp Gln Thr Cys His Thr Gly Pro Cys Gly Ser
        515                 520                 525
Cys Arg Arg Lys Leu Pro Val Ser Cys Arg Cys Gly Arg Thr Thr Val
    530                 535                 540
Val Thr Val Cys His Gln Gly Met Ile Glu Pro Pro Trp Cys Phe Arg
545                 550                 555                 560
Val Cys Lys Ala Gly Leu His Cys Gly Arg His Ala Cys Ala Glu Arg
                565                 570                 575
Cys Cys Pro Gly Glu Gln Lys Ala Ile Glu Arg Gln Ala Met Arg Arg
            580                 585                 590
Lys Leu Lys Ala His Leu Arg Pro Ser Asp Glu Asp Val Glu Ala Glu
        595                 600                 605
His Ile Cys Thr Arg Val Cys Gly Arg Pro Leu Lys Cys Gly Arg His
    610                 615                 620
Thr Cys Pro Glu Ile Cys His Lys Gly Pro Cys Asn Thr Cys Arg Glu
625                 630                 635                 640
Ala Ile Phe Glu Asp Ile Pro Cys Asp Cys Gly Arg Thr Val Leu Ser
                645                 650                 655
Pro Pro Leu Pro Cys Gly Thr Lys Pro Pro Ala Cys Ser Phe Pro Cys
            660                 665                 670
Glu Arg Pro Lys Pro Cys Gly His Pro Gln Thr Pro His Asn Cys His
        675                 680                 685
Thr Asp Glu Glu Ser Cys Pro Lys Cys Pro Phe Leu Thr Glu Lys Ala
    690                 695                 700
Cys Leu Cys Gly Arg Arg Val Leu Lys Asn Gln Pro Cys Trp Leu Ala
705                 710                 715                 720
Glu Thr Arg Cys Gly Glu Val Cys Gly Glu Pro Leu Lys Cys Gly Ser
                725                 730                 735
His Ser Cys Gln Lys Thr Cys His Arg Pro Gly Glu Cys Glu Asp Ala
            740                 745                 750
Ser Arg Pro Cys Gln Gln Pro Cys Gly Lys Thr Lys Ser Leu Cys Gly
        755                 760                 765
His Pro Cys Thr Glu Pro Cys His Ala Pro Tyr Gln Cys Pro Glu Lys
    770                 775                 780
Thr Pro Cys Thr Ser Thr Val Thr Val Thr Cys Gly Cys Gly Arg Leu
785                 790                 795                 800
Arg Gln Ser Arg Arg Cys Asn Ala Ala Ala Ala Ser Lys Gly Pro Val
                805                 810                 815
Pro Gln Ala Val Phe Thr Thr Gly Leu
            820                 825
```

<210> 38313
<211> 644
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (186)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38313

```
Ile Arg Gln Asp Ser Gln Gly Arg Glu Ile Tyr Phe Ile Val Arg Gly
1               5                  10                  15
Glu Val Glu Val Leu Thr Glu Arg Thr Asp Ala Gln Asp Arg His Ser
            20                  25                  30
Leu Ala Ala Ser Ile Glu Asn Pro Pro Phe Glu Val Lys Ala Arg Leu
        35                  40                  45
Lys Gln Gly Gln Tyr Phe Gly Glu Val Val Ser Leu Ser Leu Ala Pro
    50                  55                  60
Arg Arg Thr Ala Thr Val Arg Ser Val Thr Ala Val Glu Cys Leu Met
65                  70                  75                  80
Leu Ser Gly Asp Val Leu Ala Glu Phe Trp Asp Lys Leu Pro Gln Thr
                85                  90                  95
Val Arg Gln Gln Val Glu Asn Thr Ala Lys Glu Arg Leu Gln Ser Ala
            100                 105                 110
Ser Asp Gly Asp Val Val Met Ser Asp Ala Gly Ser Ala Asp Gln Pro
        115                 120                 125
Thr Asp Gly Glu Phe Lys Ile Arg Ala Ala Arg Arg Gln Ser Met Pro
    130                 135                 140
Leu Leu Thr Leu Thr Glu Thr Glu Leu Asp Ser Pro Arg Ala Pro Ser
145                 150                 155                 160
Ala Met Glu Asp Gln Asn Val Leu Lys Pro Ser Asp Pro Asp Pro Phe
                165                 170                 175
Leu Asn Val Gly Leu Asp Lys Val Arg Xaa Arg Ser Arg Arg Gly Ser
            180                 185                 190
Val Ala Pro Leu Thr Pro Asp Glu Val Ser Gly Glu Gln Gln Arg Gln
        195                 200                 205
Ser Pro Pro Ser Gly Thr Arg Ser Thr Arg Ser Ser Leu His Ser Leu
    210                 215                 220
Ser Asp Thr Ser Thr Leu Ser Thr Thr Gln Lys Ala His Arg Glu Ser
225                 230                 235                 240
Arg Gly Asp Asn Val Gly Ile Leu Pro Asp Asn Ile Leu Val Arg Ile
                245                 250                 255
Phe Gln His Leu Glu Leu His Glu Leu Met Arg Leu Arg Ala Val Ser
            260                 265                 270
Leu His Trp Ser Glu Ile Leu Thr Lys Ser Ser Glu Leu Val Arg Tyr
        275                 280                 285
Leu Asp Leu Ser Ile Tyr Asn Arg Lys Leu Ser Asp Asp Val Leu Val
    290                 295                 300
Lys Ile Ile Cys Pro Phe Val Gly Glu Arg Pro Arg His Val Asn Ile
305                 310                 315                 320
Ser Asn Cys Phe His Ile Thr Asp Glu Gly Phe Ser Asn Leu Ala Ala
                325                 330                 335
Thr Cys Gly Ala Asn Val Val Ser Trp Lys Met Lys Ser Val Trp Asp
            340                 345                 350
Val Thr Ala Thr Ala Ile Leu Glu Met Thr Gly Lys Ala Thr Gly Leu
        355                 360                 365
Gln Glu Val Asp Leu Ser Asn Cys Arg Lys Val Gly Asp Thr Leu Leu
    370                 375                 380
Ala Arg Ile Ile Gly Trp Val Ala Pro Gly Gln His Lys Pro Asn Gly
385                 390                 395                 400
Glu Thr Gly Lys Met Gly Lys Ala Ala Leu Lys Pro Thr Met Gln Thr
                405                 410                 415
Glu Ala Gly Thr Val Tyr Gly Cys Pro Gln Leu Lys Lys Leu Thr Leu
```

```
            420                 425                 430
Ser Tyr Cys Lys His Val Thr Asp Arg Ser Met His His Ile Ala Ser
        435                 440                 445
His Ala Ala Ser Arg Ile Glu Gln Met Asp Leu Thr Arg Cys Thr Thr
    450                 455                 460
Ile Thr Asp Gln Gly Phe Gln Tyr Trp Gly Asn Ala Gln Phe Ile Asn
465                 470                 475                 480
Leu Arg Lys Leu Thr Leu Ala Asp Cys Thr Tyr Leu Thr Asp Asn Ala
                485                 490                 495
Ile Val Tyr Leu Thr Asn Ala Ala Lys Gln Leu Gln Glu Leu Asp Leu
            500                 505                 510
Val Ser Leu Ser Leu Leu Gln Glu Leu Ser Cys Ser Thr Ala Asp Arg
        515                 520                 525
Asp Gln Ser Phe Cys Cys Ala Leu Ser Asp Thr Ala Thr Glu Val Leu
    530                 535                 540
Ala Leu Gln Cys Ser Gln Leu Thr Tyr Leu Asn Met Ser Phe Cys Gly
545                 550                 555                 560
Ser Ala Ile Ser Asp Pro Ser Leu Arg Ser Ile Gly Leu His Leu Leu
                565                 570                 575
Asn Leu Lys Arg Leu Ser Val Arg Gly Cys Val Arg Val Thr Gly Val
            580                 585                 590
Gly Val Glu Ala Val Ala Glu Gly Cys Asn Gln Leu Glu Ser Phe Asp
        595                 600                 605
Val Ser Gln Cys Lys Asn Leu Leu Pro Trp Leu Glu Asp Gly Gly Pro
    610                 615                 620
Leu Arg Tyr Lys Gly Lys Ile Asp Phe Glu Thr Val Ala Gln Asn Gly
625                 630                 635                 640
Arg Val Phe Arg
```

<210> 38314
<211> 94
<212> PRT
<213> A.fumigatus

<400> 38314

```
Leu Arg Met Leu Phe Phe Asp Phe His Phe Trp Ser Tyr Glu Gln Met
1               5                   10                  15
Asn Arg Arg Ile Ser Asn Lys Arg Leu Leu Ser Cys Phe Leu Arg Ile
            20                  25                  30
Ser Trp Phe Leu Val Ser Ala Tyr Pro Leu Ser Leu Asp His Gln Asn
        35                  40                  45
Phe Ile Met Phe Tyr Arg His Asn Ile Phe His Asn Leu Phe Val Thr
    50                  55                  60
Met Lys Ala Lys Thr Lys Glu Gly Lys Leu Lys Gly Lys Ser Gly Pro
65                  70                  75                  80
Ile Gln Cys Tyr Ser Phe Asn Ile Asn Ile Tyr Leu Cys Tyr
                85                  90
```

<210> 38315
<211> 192
<212> PRT
<213> A.fumigatus

<400> 38315

```
Gln Phe Pro Trp Asn Pro Pro Pro Ala Arg Gln Val His Ala Gln Ala
```

```
1               5                   10                  15
Pro Tyr Asp Val His Ala Gln Ala Gln Ala Ala Gly Gln Gly Ala Gly
            20                  25                  30
Arg Met Pro Leu Pro Ala Asn Leu Pro Pro Val Gly Gln Gly Thr Leu
        35                  40                  45
Tyr Phe Thr Phe Pro Pro Asp Pro Pro Gln Ala Gly Gln Gly Pro Gly
    50                  55                  60
Gln Met Pro Leu Pro Ala Asn Leu Pro Pro Thr Gln Gln Arg Thr Phe
65                  70                  75                  80
Pro Pro Asp Pro Phe Leu Val Gly Gln Gly Ala Gly Gln Met Gln Leu
                85                  90                  95
Pro Ala Ser Ile Pro Pro Pro Gly Gln Glu Val Gly Asn Leu Ala Pro
            100                 105                 110
Pro Pro Asp Val Arg Leu Ala Gly Pro Gly Pro Leu Asn Phe Pro Pro
        115                 120                 125
Gly Pro Asn Leu Pro Pro Val Ile Gln Glu Pro Ala Asn Phe Ile Pro
    130                 135                 140
Ala Pro Arg Thr Pro Ser Pro Glu Gln Gly Ser Ser Ser Asp Gln Ser
145                 150                 155                 160
Ser Gly Gly Asn Pro Tyr Arg Thr Ser Ser Glu Ala Ser Ala Asp Asn
                165                 170                 175
Asp Ser Thr Asn Tyr Gly Ala Thr Asn Thr Gly Pro Ala Phe Val Ser
            180                 185                 190
```

<210> 38316
<211> 85
<212> PRT
<213> A.fumigatus

<400> 38316

```
Ile Arg Glu Ala Leu Val Gly Asp Val Glu Thr Ile Thr Asp Ile Asp
1               5                   10                  15
Val Ala Arg Ser Phe Pro Asn Lys Arg Ala Asp Tyr Phe Asp Gln Asn
            20                  25                  30
Ile Ile Ala Lys Phe Ala Ile Val Tyr Ala Gln Ile Lys Ile Thr Asn
        35                  40                  45
Glu Phe Arg Gly Phe Gly Lys Asn Leu Arg Pro Met Gln Arg Asp Ser
    50                  55                  60
Ser Lys Ala His Lys Phe Val Lys Leu Gln Val Leu Glu Asn Pro His
65                  70                  75                  80
Glu Tyr Ile Ile Arg
                85
```

<210> 38317
<211> 113
<212> PRT
<213> A.fumigatus

<400> 38317

```
Val Arg Leu Cys Cys Glu Phe Met Pro Glu Ala Gln Arg Ser Ala Ala
1               5                   10                  15
Pro Leu Lys Asn Ser Pro Asn Ser Ser Ile Pro Leu His Gly Thr Arg
            20                  25                  30
His Asp Leu Ile Ile Thr Leu Glu Arg Leu Ala Leu Leu Leu Gly Pro
        35                  40                  45
Val Cys Glu Lys Ser Pro Asn Val Ile Ile Thr Gly Thr Ala Gly Val
```

```
    50                  55                  60
Gly Lys Thr Val His Cys Glu Lys Leu Ala Gln Glu Val Gly Leu Arg
65                  70                  75                  80
His Leu Ser Ile Asn Gln Val Ala Lys Asp Arg Gly Cys Phe Glu Ser
                85                  90                  95
Tyr Asp Gln Asp Leu Glu Thr Trp Ile Val Asp Glu Asp Lys Val Arg
            100                 105                 110
Arg
```

<210> 38318
<211> 73
<212> PRT
<213> A.fumigatus

<400> 38318

```
His Asp His Ala Ser Ser Arg Lys Tyr Lys Glu Ala Lys Leu Gln Glu
1               5                   10                  15
Asn Leu Asp Ser Glu Ile Phe Gly Ile Leu Ser Glu Glu Ala Arg Glu
            20                  25                  30
Ala Phe Asp Glu Gln Ile Val Val Glu Leu Asn Ser Glu Glu Asp Asp
        35                  40                  45
Asp Val Glu Thr Asn Cys Ala Arg Ile Ser Ala Trp Ile Glu Ser Trp
    50                  55                  60
Lys Glu Ser Arg Pro Glu Asn Arg Glu
65                  70
```

<210> 38319
<211> 60
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (6)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38319

```
Arg Leu Pro Trp Val Xaa Asn Pro Ser Asn Leu Ser Pro Asn His Trp
1               5                   10                  15
Phe Pro Ser Leu Lys Leu Thr Asp Tyr Pro Ile Leu Arg Glu Ile Glu
            20                  25                  30
Ile Pro Pro Arg Leu Ala Glu Val Phe Asn Trp Ala Leu Gly Phe Pro
        35                  40                  45
Phe Pro Ile Lys Pro Leu Val Asn Pro Pro Met Asn
    50                  55                  60
```

<210> 38320
<211> 156
<212> PRT
<213> A.fumigatus

<400> 38320

```
Glu Ser Leu Glu Phe Asn Ile Tyr His Thr Trp Met Lys Val Leu Lys
1               5                   10                  15
Lys Lys Leu Tyr Lys Met Ile Val Pro Ala Ile Ile Glu Ser Gln Ser
```

```
            20                  25                  30
Val Pro Gly Phe Val Thr Ser Glu Thr Asn Arg Phe Leu Gly Lys Leu
        35                  40                  45
Leu Pro Ser Asn Asn Asn Pro Ala Tyr Ser Met Asp Asn Leu Leu Ser
    50                  55                  60
Leu Leu Asn Asn Val Tyr Lys Ala Met Lys Ala Phe Tyr Leu Glu Asp
65                  70                  75                  80
Ser Ile Ile Thr Gln Thr Val Thr Glu Leu Leu Arg Leu Val Gly Val
                85                  90                  95
Thr Ala Phe Asn Asp Leu Leu Met Arg Arg Asn Phe Leu Ser Trp Lys
            100                 105                 110
Arg Gly Leu Gln Ile Asn Tyr Asn Ile Thr Arg Ile Glu Glu Trp Cys
        115                 120                 125
Lys Ser His Asp Met Pro Glu Gly Thr Leu Gln Leu Glu His Leu Met
    130                 135                 140
Val Ser Trp Phe Pro Arg Asp Ser Ser Asp Phe Asn
145                 150                 155

<210> 38321
<211> 73
<212> PRT
<213> A.fumigatus

<400> 38321
Ser Tyr Leu Gln Val His Cys Lys Phe Gly Thr Ala Glu Leu Ile Met
1               5                   10                  15
Gln Tyr Ser Lys His Phe Leu Ser Ala Leu Gly His Asp Gly Leu Asn
            20                  25                  30
Lys Met Leu Asp Ser Phe Glu Asp Arg Ser Ala Glu Ala Val Cys Thr
        35                  40                  45
Phe Ala Phe Cys Arg Gly Pro Gly Glu Glu Pro Ile Leu Phe Gln Gly
    50                  55                  60
Arg Thr Glu Val Asn Gly Thr Pro Val
65                  70

<210> 38322
<211> 119
<212> PRT
<213> A.fumigatus

<400> 38322
Arg Leu Ile Gly Arg Phe Phe Arg Leu Ser Pro Asn Gln Ile Gln Lys
1               5                   10                  15
Leu Leu Asn Gln Tyr Leu Val Ala Asp Tyr Glu Gln Pro Ile Asn Gly
            20                  25                  30
Glu Ile Met Lys Ala Val Ala Ser Arg Val Thr Glu Lys Ser Asp Val
        35                  40                  45
Leu Leu Leu Thr Pro Val Asp Met Glu Asp Ser Gly Pro Tyr Glu Ile
    50                  55                  60
Ala Glu Pro Arg Val Ile Thr Ala Leu Glu Thr Tyr Thr Pro Ser Cys
65                  70                  75                  80
Glu Cys Phe Asn Glu Met Val Ser Arg Ile Leu Met Ile Ser Arg Ala
                85                  90                  95
Pro Asn Ser Ala Phe Glu Thr Ser Cys Arg Asn Ser Leu Ser Thr Gly
            100                 105                 110
Asn Gly Pro Ala Arg Glu Thr
```

115

<210> 38323
<211> 434
<212> PRT
<213> A.fumigatus

<400> 38323
Ser Pro Ile Ile Ala Ser Phe Ala Ala Gly Arg Phe Leu Ser Phe Asp
1 5 10 15
Thr Leu Val Cys Asp Tyr Asn Tyr Leu Arg Gln Arg Pro Leu Ser Gly
20 25 30
Leu Ile Pro Ala Pro Gly Leu Pro Pro Phe Arg Ile Arg Ala Val Glu
35 40 45
Met Pro Ser Ser Ser Ala Asp Asp Ile Pro Ala Thr Pro Arg Val Ile
50 55 60
Ser Pro Ser Pro Val Pro Ser Ser Glu Ser Ser Ser Arg Asp Gly Tyr
65 70 75 80
Ala Gly Pro Arg Thr Arg Ser Ala Ala Arg Arg Gln Arg Leu Val Asp
85 90 95
Val Ser Glu Glu Lys Ser Glu Asn Val Asp Ala Asp Ser Thr Arg Ser
100 105 110
Arg Ser Arg Ser Pro Ala Ala Pro Ala Arg Leu Thr Arg Thr Arg Arg
115 120 125
Ser Asn Pro Met Ile Pro Ala Arg Lys Pro Glu Pro Ser Lys Thr Asn
130 135 140
Gly Arg Ile Ser Pro Thr Asp Leu Leu Ser Pro Asn Ser Ala Leu Gly
145 150 155 160
Lys Gly Arg Ala His Asp Ile Ser Arg Ser Pro Ser Pro Leu Gly Leu
165 170 175
Ile Pro Leu His Thr Arg Tyr Arg Ser Phe Ile His Arg His Glu Ile
180 185 190
Pro Arg Lys Leu Leu His Gly Ser Ile Gly Phe Leu Thr Leu Tyr Leu
195 200 205
Tyr Ser Arg Gly Val Gln Thr Leu Gln Ile Thr Pro Trp Leu Leu Ser
210 215 220
Ala Leu Val Pro Ile Ala Ala Thr Asp Phe Ile Arg His Arg Ser Glu
225 230 235 240
Thr Phe Asn Lys Ile Tyr Ile Arg Cys Val Gly Ala Leu Met Arg Glu
245 250 255
Thr Glu Val Ser Gly Tyr Asn Gly Val Ile Trp Tyr Leu Leu Gly Ala
260 265 270
Tyr Ser Val Leu Arg Phe Phe Pro Lys Asp Val Ala Val Met Gly Val
275 280 285
Leu Leu Leu Ser Trp Cys Asp Thr Ala Ala Ser Thr Phe Gly Arg Leu
290 295 300
Tyr Gly Arg His Thr Phe Gln Leu Arg Lys Gly Lys Ser Phe Ala Gly
305 310 315 320
Thr Leu Ala Ala Trp Val Val Gly Val Val Thr Ala Ala Ala Phe Trp
325 330 335
Gly Trp Phe Val Pro Arg Val Gly Ala Phe Pro Asn Asp Pro Glu Gly
340 345 350
Ser Phe Met Phe Thr Gly Arg Leu Asn Leu Leu Pro Asp Pro Ile Lys
355 360 365
Gly Leu Leu Gly Trp Thr Ala Asp Ser Asp Ser Ser Arg Gly Val Ile
370 375 380

```
Thr Gly Pro Leu Ala Leu Gly Val Met Ser Val Val Ser Gly Ile Ile
385                 390                 395                 400
Ala Ala Gly Ser Glu Phe Ile Asp Leu Phe Ser Trp Asp Asp Asn Phe
                405                 410                 415
Thr Ile Pro Val Leu Ser Gly Ile Gly Leu Trp Gly Phe Leu Lys Val
            420                 425                 430
Phe Gly
```

<210> 38324
<211> 62
<212> PRT
<213> A.fumigatus

<400> 38324

```
Asn Asp Asp Gly Ala Asn Met Met Phe Leu Asn Gly Phe Leu Glu Thr
1               5                   10                  15
Gln Lys Leu Leu Tyr Asn Trp Asp Gln Glu Arg Gln Arg Leu Ser Ala
            20                  25                  30
Ala Ser Asp Cys Leu His Tyr Asp Ile Leu Met Arg His Glu Gln Arg
        35                  40                  45
Asn Ser Gly Cys Leu His Trp Gly His Ala Gly Glu Ala His
    50                  55                  60
```

<210> 38325
<211> 378
<212> PRT
<213> A.fumigatus

<400> 38325

```
Phe Asp Cys Thr Ser Leu Gln Met Thr Tyr Leu Thr Thr Pro Pro Ser
1               5                   10                  15
His Lys Phe Ala Ala Leu Lys Arg Ile Val Ser Ser Val Gln Pro Thr
            20                  25                  30
Pro Leu Lys Thr Ile Phe Phe Val Ser Thr Cys Ser Gly Val Asp Tyr
        35                  40                  45
Leu Ser Ala Ile Leu Pro Leu Leu Leu Gly Asp Asp Phe Leu Leu Ile
    50                  55                  60
Pro Leu His Gly Lys His Gln Ala Asn Val Arg Gln Lys Asn Phe Asn
65                  70                  75                  80
Arg Phe Ile Asn Ser His Asp Pro Ala Ile Leu Leu Thr Thr Asp Val
                85                  90                  95
Ala Ala Arg Gly Leu Asp Ile Pro Ser Val Asp Leu Val Val Gln Ile
            100                 105                 110
Asp Pro Pro Ser Asp Pro Lys Ser Phe Ile His Arg Cys Gly Arg Ala
        115                 120                 125
Gly Arg Ala Gly Arg Arg Gly Leu Ser Val Val Leu Leu His Pro Gly
    130                 135                 140
Arg Glu Glu Asp Tyr Val Ser Phe Leu Glu Val Arg Lys Thr Pro Val
145                 150                 155                 160
Val Pro Phe Ser Pro Ser Ile Ser Phe Ser Asp Ala Asp Ala Ala Ala
                165                 170                 175
Ala Thr Ala Thr Ala Arg Lys Ala Val Leu Ala Asp Arg Ala Leu His
            180                 185                 190
Asp Arg Gly Gln Lys Ala Phe Val Ser Trp Leu Arg Ser Tyr Ser Lys
        195                 200                 205
```

```
His Gln Ala Ser Ser Ile Phe Arg Val Ser Asp Leu Asp Trp Glu Ala
    210                 215                 220
Leu Gly Lys Ala Trp Gly Leu Leu Lys Leu Pro Lys Met Pro Glu Leu
225                 230                 235                 240
Lys Asn Phe Thr Gly Asp Lys Thr Leu Gly Met Ser Leu Asp Trp Asp
                245                 250                 255
Asn Tyr Ala Tyr Lys Asp Lys Gln Arg Glu Lys Arg Arg Lys Glu Leu
            260                 265                 270
Leu Gln Glu Ala Ala Glu Ser Gly Ala Thr Gln Ser Thr Ser Asn Lys
        275                 280                 285
Arg Arg Ala Thr Glu Ser Val Ala Trp Ser Gln Gln Ala Glu Ser Lys
    290                 295                 300
Asn Lys Lys Leu Lys Arg Arg Glu Gln Lys Lys Ser Lys Gln Glu Lys
305                 310                 315                 320
Ala Arg Trp Glu Lys Met Thr Glu Glu Glu Lys Gln Lys Val Leu Glu
                325                 330                 335
Thr Glu Lys Met Val Glu Glu Leu Arg Lys Lys Asn Glu Glu Glu Arg
            340                 345                 350
Arg Leu Arg Arg Ala Val Ala Lys Ala Ala Gly Ala Lys Ala Asp Gly
        355                 360                 365
Asp Asp Glu Glu Glu Phe Gln Gly Phe Asp
    370                 375
```

<210> 38326
<211> 116
<212> PRT
<213> A.fumigatus

```
<400> 38326
Ser Ser Asn Arg Ser Ala Asp Arg Ser Asp Gly Pro Ile Leu His Ser
1               5                   10                  15
Ala Ala Val Met Ala Pro Lys Pro Pro Ser Gly Thr Ser Leu Arg Ala
            20                  25                  30
Trp Asp Ala Val Thr Pro Ala Leu Ser Glu Trp Val Leu Glu Ala Met
        35                  40                  45
Ser Ser Met Gly Phe Thr Arg Met Thr Pro Val Gln Ala Ser Ala Ile
    50                  55                  60
Pro Leu Phe Met Ala His Lys Asp Val Val Val Glu Ala Val Thr Gly
65                  70                  75                  80
Ser Gly Lys Thr Leu Ser Phe Leu Ile Pro Val Val Glu Lys Leu Leu
                85                  90                  95
Arg Leu Glu Glu Pro Ile Lys Lys His His Val Gly Ala Ile Ile Ile
            100                 105                 110
Ser Pro Thr Arg
        115
```

<210> 38327
<211> 212
<212> PRT
<213> A.fumigatus

```
<400> 38327
Ala Leu Ile Ser Gly Arg Ala Ala Ala Arg Ile Val Glu Thr Leu Asp
1               5                   10                  15
Ala Glu Tyr Val Ile Arg Glu Leu Ala Ser Gln Ile Tyr Asn Val Leu
            20                  25                  30
```

```
Ser Ser Leu Leu Ala Phe His Pro Pro Ser Ala Ala Ala Ile Asn Pro
        35                  40                  45
Ser Glu Asp Asp Asp Ala Pro Arg Pro Lys Phe Pro Ser Ser Thr Leu
    50                  55                  60
Lys Val Val Pro Gln Leu Leu Leu Gly Gly Ser Thr Thr Pro Ala Glu
65                  70                  75                  80
Asp Leu Ser Thr Phe Leu Lys Arg Ser Pro Asn Val Leu Val Ser Thr
                85                  90                  95
Pro Gly Arg Leu Leu Glu Leu Leu Ser Ser Pro His Val His Cys Pro
            100                 105                 110
Gln Ser Ser Phe Glu Met Leu Val Leu Asp Glu Ala Asp Arg Leu Leu
        115                 120                 125
Asp Leu Gly Phe Lys Glu Thr Leu Gln Asn Ile Leu Arg Arg Leu Pro
    130                 135                 140
Lys Gln Arg Arg Thr Gly Leu Phe Ser Ala Ser Val Ser Glu Ala Val
145                 150                 155                 160
Asp Gln Ile Val Arg Val Gly Leu Arg Asn Pro Val Lys Val Met Val
                165                 170                 175
Lys Val Lys Gly Gly Ser Gly Val Asp Asp Lys Arg Thr Pro Ala Arg
            180                 185                 190
Leu Val Pro Leu Tyr Phe Ile Leu Glu Gln Gln Ser Asn Ser Ile Val
        195                 200                 205
Pro Val Cys Lys
    210
```

<210> 38328
<211> 127
<212> PRT
<213> A.fumigatus

```
<400> 38328
Ala Asp Thr Ile Leu Gly Phe Ala Gly Asn Asp Ser Pro Ser Phe Val
1               5                   10                  15
Phe Pro Thr Ala Ile Ala Ser Lys Val Gly Ala Gly Ser Ala Gly Ser
            20                  25                  30
Ser Gly Ser Gly Arg Pro Pro Val Ala Asn Lys Pro Ser Phe Leu Gly
        35                  40                  45
Ala Gly Ser Gly Ser Ser Ser Asn Leu Ser Ala Lys Arg Gly Thr Glu
    50                  55                  60
Asp Leu Asp Phe Phe Ile Gly Asp Glu Ala Leu Ala Ala Ala Asn Gly
65                  70                  75                  80
Pro Gly Tyr Gly Ile Asn Tyr Pro Ile Arg His Gly Gln Ile Glu Asn
                85                  90                  95
Trp Asp Ala Met Glu Arg Phe Trp Ser Asn Ser Ile Phe Asn Tyr Arg
            100                 105                 110
Leu His Pro Arg Glu Leu Ala Gly Pro Ala Leu Asn Val Arg Glu
        115                 120                 125
```

<210> 38329
<211> 66
<212> PRT
<213> A.fumigatus

```
<400> 38329
His Gly Leu Ala Thr Thr Tyr Leu Asp Leu His Ser Trp Phe Ala Pro
1               5                   10                  15
```

```
Tyr Thr Arg His Leu Pro Ser Ser Thr Val Thr Ala Arg Leu His Leu
            20                  25                  30
Pro Leu Ile Leu Ile Phe Leu His His Cys Tyr Ser Ser Val Leu Pro
        35                  40                  45
Thr Gly Leu Pro Leu Tyr Ser Thr Asn Cys Ser Ile Asp Leu Leu Phe
    50                  55                  60
Asn Phe
65
```

<210> 38330
<211> 157
<212> PRT
<213> A.fumigatus

<400> 38330

```
Leu Ala Ala Asp Ile Gly Tyr Ser Pro Leu Leu Ser Ser Ile Glu Val
1               5                   10                  15
Ser His Leu Gln Tyr Glu Ser Thr Thr Glu Arg Trp Arg Tyr Leu Cys
            20                  25                  30
His Leu Arg Pro Cys Arg Gly Gly Ile Ser Arg Pro Trp Lys Arg Glu
        35                  40                  45
Ser Pro Pro Ser Gly Met Arg Lys Val Ser Leu Pro Ala Thr Cys Glu
    50                  55                  60
Ser Met Ile Tyr Val Val His Val Ser Ala Phe Gly Leu Thr Ala Ser
65                  70                  75                  80
Ser Ala Cys Lys Ala Ala Met Gly Ile Leu Lys Ser Gly Gly Ser Ala
                85                  90                  95
Leu Asp Ala Val Glu Met Ala Ile Ile Val Met Glu Asp Asp Glu Ile
            100                 105                 110
Thr Asn Ala Gly Tyr Gly Ser Asn Leu Thr Ile Glu Gly Ala Val Glu
        115                 120                 125
Cys Asp Ala Thr Ile Val Asp His His Gly Arg Ser Gly Ala Ala Gly
    130                 135                 140
Ala Val Ser Arg Lys Phe Leu Phe Phe Ser Ala Ser Gln
145                 150                 155
```

<210> 38331
<211> 171
<212> PRT
<213> A.fumigatus

<400> 38331

```
Gln Tyr Val Leu Ser Cys Phe Tyr Ile Cys His Glu Asp Leu Glu Leu
1               5                   10                  15
Val Ser Asn Leu Met Pro His Leu Ala Met Leu Tyr Asn Asn Leu Leu
            20                  25                  30
Ser Ile Pro Val Leu Leu Val Leu Thr Phe Leu Met Glu Asp Trp Ser
        35                  40                  45
Ser Ala Asn Ile Ala Arg Asn Phe Pro Ser Thr Asp Arg Asn Gly Ile
    50                  55                  60
Leu Phe Ala Met Ile Leu Ser Gly Leu Ser Ser Val Phe Ile Ser Tyr
65                  70                  75                  80
Thr Ser Ala Trp Cys Val Arg Val Thr Ser Ser Thr Thr Tyr Ser Met
                85                  90                  95
Val Gly Ala Leu Asn Lys Leu Pro Ile Ala Leu Ser Gly Leu Ile Phe
            100                 105                 110
```

```
Phe Asp Ala Pro Val Thr Phe Pro Ser Val Ser Ala Ile Val Val Gly
        115                 120                 125
Phe Ile Ser Gly Ile Val Tyr Ala Val Ala Lys Ile Lys Gln Ser Ala
    130                 135                 140
Lys Pro Lys Thr Gly Val Leu Pro Met Ser Asn Pro Pro Val Ser Ala
145                 150                 155                 160
Ser Ser Gln Ser Met Arg Asp Ser Leu Arg Ser
                165                 170
```

<210> 38332
<211> 87
<212> PRT
<213> A.fumigatus

<400> 38332

```
Gly Ser Ser Val Pro Ser Ser Pro Ala Gly Ala Asp Ile Lys Gln Ala
1               5                   10                  15
Val Glu Ser Ser Gly Asp Val Thr Ala Lys Val Ser Thr Leu Asn Ala
            20                  25                  30
Gly Tyr Ile Trp Met Leu Ile Asn Cys Leu Cys Ile Ser Ser Asn Phe
        35                  40                  45
Leu Gly Met Arg Lys Arg Ile Lys Leu Thr Asn Phe Lys Asp Phe Asp
    50                  55                  60
Ser Thr Ser Phe Leu Val Ser Ile Ser Ala Thr Lys Thr Trp Ser Ser
65                  70                  75                  80
Cys Leu Thr Leu Cys Leu Ile
                85
```

<210> 38333
<211> 555
<212> PRT
<213> A.fumigatus

<400> 38333

```
Ala Glu Pro Ser Leu Ser Arg Asn Leu Ala Cys Gly Glu Asp Ser Asp
1               5                   10                  15
Cys Ile Asn Arg Ala Thr Lys Ile Glu Cys Val Gly Asp Cys Ser Cys
            20                  25                  30
Gly Ala Glu Cys Gln Asn Gln Arg Phe Gln Arg Lys Glu Tyr Ala Asn
        35                  40                  45
Val Ala Val Ile Lys Thr Glu Lys Lys Gly Phe Gly Leu Arg Ala Glu
    50                  55                  60
Thr Asp Leu Arg Pro His Gln Phe Ile Phe Glu Tyr Val Gly Glu Val
65                  70                  75                  80
Ile Asn Glu Ala Gln Phe Arg Arg Arg Met Arg Gln Tyr Asp Glu Glu
                85                  90                  95
Gly Ile Lys His Phe Tyr Phe Met Ser Leu Ser Arg Gly Glu Phe Val
            100                 105                 110
Asp Ala Thr Lys Lys Gly Asn Leu Gly Arg Phe Cys Asn His Ser Cys
        115                 120                 125
Asn Pro Asn Cys Tyr Val Asp Lys Trp Val Val Gly Glu Lys Leu Arg
    130                 135                 140
Met Gly Ile Phe Ala Glu Arg Ala Ile Gln Ala Gly Glu Glu Leu Val
145                 150                 155                 160
Phe Asn Tyr Asn Val Asp Arg Tyr Gly Ala Asp Pro Gln Pro Cys Tyr
                165                 170                 175
```

```
Cys Gly Glu Pro Asn Cys Thr Gly Phe Ile Gly Gly Lys Thr Gln Thr
            180                 185                 190
Asp Arg Ala Thr Lys Leu Ser Asn Ala Thr Ile Glu Ala Leu Gly Ile
        195                 200                 205
Glu Asp Ala Asp Ser Trp Asp Thr Val Val Ala Lys Arg Pro Arg Lys
    210                 215                 220
Lys Lys Met Gly Glu Asp Asp Glu Glu Tyr Leu Asp Ser Val Gln His
225                 230                 235                 240
Lys Ser Leu Asp Glu Asn Gly Val Thr Lys Val Met Ala Ala Leu Met
                245                 250                 255
Gln Cys Lys Glu Lys Trp Ile Ala Val Lys Leu Leu Arg Arg Ile Glu
            260                 265                 270
Arg Cys Asp Asp Asp Arg Val Arg His Arg Val Val Lys Met His Gly
        275                 280                 285
Tyr Gln Ile Leu Asn Ser Gln Leu Thr Leu Trp Lys Asp Asp Phe Asn
    290                 295                 300
Val Val Leu Gln Ile Leu Asn Ile Leu Asp Gly Phe Pro Arg Leu Thr
305                 310                 315                 320
Arg Asn Lys Ile Ile Asp Ser Lys Ile Glu Ser Thr Val Gln Pro Leu
                325                 330                 335
Thr Thr Cys Gly Asp Glu Arg Val Glu Lys Lys Ala Ala Ala Leu Leu
            340                 345                 350
Gln His Trp Ala Thr Leu Glu Val Gly Tyr Arg Ile Pro Arg Met Lys
        355                 360                 365
Arg Asp Pro Asn Ala Val Ala Ser Val Ser Gln Phe Gly Arg Arg Glu
    370                 375                 380
His Thr Thr Asp Glu Gln Lys Arg Ser Gln Ser Arg Ser Arg Ser Arg
385                 390                 395                 400
Ser Arg Ser Leu Asp Ala Pro Arg Gly Pro Ala Asn Pro Gly Arg Lys
                405                 410                 415
Ser Asn Gly Pro Arg Asn Ser Gln His His Gly Ala Arg Gln Phe Arg
            420                 425                 430
Arg Gln Phe Asn Pro Leu Pro Pro Gly Trp Phe Ala Ala Glu Ser His
        435                 440                 445
Gly Arg Thr Tyr Tyr Tyr Cys Ala Arg Gly Asp Val Thr Trp Thr Arg
    450                 455                 460
Pro Ile His Ala Ala Pro Glu Ala Glu Val Pro Gly Gln Gln Ala Lys
465                 470                 475                 480
Asn Lys Ala Leu Gln Gly Ile Ile Asp Asn Ile Leu Asn Ala Lys Glu
                485                 490                 495
Asn Thr Pro Lys Glu Lys Thr Val Thr Pro Gly Thr Pro Gln Ala Ser
            500                 505                 510
Arg Glu Thr Ala Ser Leu Asn Glu Gly Gln Glu Arg Trp Arg Ser Tyr
        515                 520                 525
Ser Glu Glu Lys Gln Lys Lys Leu Tyr Glu Asn Thr Val Ser Ser Leu
    530                 535                 540
Pro Arg Ala Ala Val Val Val Leu Glu Tyr Arg
545                 550                 555
```

<210> 38334
<211> 184
<212> PRT
<213> A.fumigatus

<400> 38334
Arg Ile Ala Arg Ala Val Pro Gln Ile Pro Leu Arg Glu Asp Ile Ala

```
1               5                   10                  15
Gln Glu Phe Leu Gly Arg Gly Ala Phe Ile Ala Pro Val Ala Leu Glu
            20                  25                  30
Cys Leu Leu Val Gly His Ile Asp Glu Asp Leu Ala Ala Leu Val Val
        35                  40                  45
Trp Gly Pro His Arg Lys Pro Arg Leu Gly Val Pro Gln Asp Ile Ala
    50                  55                  60
Gly Arg Gly Ile Asp Arg His Arg His Glu Arg Val Val His Tyr Gly
65                  70                  75                  80
Ala His Glu Gln Ala Val Val Thr Asp Thr Pro Arg Arg Lys Arg Ala
                85                  90                  95
Leu Val Glu Ile Glu Gln Pro Glu Lys Pro Leu Gly Ala Val Glu Glu
            100                 105                 110
Leu Gly His Gly Thr Asp Pro Glu Pro Leu Leu Glu Leu Leu Pro Asp
        115                 120                 125
Val Arg Ser Gln Ser Val Ala Ile His Ala Ala Asn Ala Val Val Ala
    130                 135                 140
Val Val Arg Arg Arg Arg Cys Gly Gln Gln Val Pro Gly His Phe Ala
145                 150                 155                 160
Asp Val His Lys Asp Arg Gly Val Gly Val Ser Asp Ile Ala Pro Glu
                165                 170                 175
Val Ala His Ala Glu Leu Leu Ala
            180
```

<210> 38335
<211> 451
<212> PRT
<213> A.fumigatus

<400> 38335

```
Arg Gly Lys Ala Ala Lys Gly Leu Gly Asn Val Trp Phe Val Phe Leu
1               5                   10                  15
Glu Thr Ala Ala Lys Tyr Pro Asp Met Val Cys Met Trp Thr Arg Glu
            20                  25                  30
Gly Ile Tyr Thr Tyr Arg Asp Val Gln Asn Leu Ala Cys Gln Tyr Ala
        35                  40                  45
His Tyr Phe Leu Ala Gln Gly Val Lys Gln Gly Asp Leu Val Ala Phe
    50                  55                  60
Tyr Leu Gln Asn Arg Ala Glu Phe Met Ile Ala Trp Leu Ala Leu Cys
65                  70                  75                  80
Ser Ile Gly Cys Ala Pro Ala Ala Ile Asn Tyr Asn Leu Thr Gly Asp
                85                  90                  95
Ala Leu Val His Cys Leu Lys Ile Ser Gly Ala Lys Leu Val Leu Val
            100                 105                 110
Asp Asp Asp Glu Ala Cys Arg Ala Arg Ile Asp Asp Ser Arg Ala Ala
        115                 120                 125
Ile Glu Gly Pro Leu Gly Met Glu Leu Ile Tyr Leu Asp His Ser Phe
    130                 135                 140
Ala Ser Gln Val Ser Ser Phe Pro Thr Thr Lys Pro Pro Lys Glu Phe
145                 150                 155                 160
Ala Gln Ser Met Ser Gly Ala Asp Pro Ala Ile Leu Leu Tyr Thr Ser
                165                 170                 175
Gly Thr Thr Gly Met Pro Lys Gly Cys Ala Phe Thr Met Ala Arg Leu
            180                 185                 190
Tyr Ser Thr Leu Ala Leu Arg Arg Gly Ser Met Glu Asp Thr Asp Gly
        195                 200                 205
```

```
Pro Gly Gly Asp Ile Trp Tyr Ser Cys Met Pro Leu Tyr His Gly Thr
    210                 215                 220
Ala Ala Val Ala Met Met Val Cys Leu Thr Thr Gly Val Ser Ile Ala
225                 230                 235                 240
Leu Gly Lys Lys Phe Ser Val Arg Asn Phe Trp Arg Asp Ile Arg Asp
                245                 250                 255
Ser His Ala Thr Val Phe Val Tyr Val Gly Glu Val Ala Arg Tyr Leu
            260                 265                 270
Leu Ala Ala Pro Pro Ser Pro Asp Asp Arg Asn His Ser Val Arg Cys
        275                 280                 285
Met Tyr Gly Asn Gly Leu Arg Pro Asp Ile Trp Glu Lys Phe Gln Gln
    290                 295                 300
Arg Phe Gly Ile Ser Ala Val Ala Glu Phe Phe Asn Ser Thr Glu Gly
305                 310                 315                 320
Leu Phe Gly Leu Phe Asn Leu Asn Lys Gly Pro Phe Thr Ala Gly Ser
                325                 330                 335
Val Gly His His Gly Leu Leu Met Arg Ala Ile Met His Asn Thr Phe
            340                 345                 350
Val Pro Val Ala Ile Asp Pro Thr Thr Gly Asp Val Leu Arg Asp Pro
        355                 360                 365
Lys Thr Gly Phe Ala Met Arg Ala Pro Tyr Asp Gln Gly Gly Glu Ile
    370                 375                 380
Leu Val Asn Val Pro Asn Glu Gln Ala Phe Gln Gly Tyr Trp Arg Asn
385                 390                 395                 400
Glu Ser Ala Thr Ser Lys Lys Phe Leu Arg Asp Val Phe Thr Lys Gly
                405                 410                 415
Asp Leu Trp Tyr Arg Ser Gly Asp Ala Leu Arg Arg Gln Ser Asp Gly
            420                 425                 430
Arg Trp Tyr Phe Leu Asp Arg Leu Gly Asp Thr Phe Arg Trp Lys Ser
        435                 440                 445
Glu Asn Val
    450
```

<210> 38336
<211> 160
<212> PRT
<213> A.fumigatus

<400> 38336

```
Ala Asn Pro Ser Thr Pro Glu Gln Phe Glu Ser Arg Lys Ser Gln Lys
1               5                   10                  15
Ser Leu Met Asp Ser Ser Ala Thr Ala Glu Val Ala Glu Ile Leu Gly
            20                  25                  30
Arg Tyr Pro Gly Ile Gln Glu Ala Asn Val Tyr Gly Val Leu Val Pro
        35                  40                  45
His His Glu Gly Arg Ala Gly Cys Ala Ala Leu His Leu Ser Pro Glu
    50                  55                  60
Ala Arg Glu Ala Phe Asp Phe Arg Gly Leu Ala Ala Phe Ala Arg Ala
65                  70                  75                  80
Arg Leu Pro Arg Tyr Ala Val Pro Val Phe Leu Arg Ile Val Glu Thr
                85                  90                  95
Ser Ala His Ile His Asn His Lys Gln Asn Lys Val Pro Leu Arg Glu
            100                 105                 110
Glu Gly Ile Asp Pro Ala Lys Ile Gly Ser Lys Val Pro Glu Gly Arg
        115                 120                 125
Asp Asp Lys Phe Tyr Trp Leu Pro Pro Gly Ala Asp Gly Tyr Val Glu
```

```
    130                 135                 140
Phe Gly Lys Arg Glu Trp Glu Thr Met Leu Ala Gly Ser Ala Arg Leu
145                 150                 155                 160

<210> 38337
<211> 158
<212> PRT
<213> A.fumigatus

<400> 38337
Pro Pro Asp Pro Thr Ser Pro Pro Leu Asp Val Ala Thr Pro Ala Pro
1               5                   10                  15
Thr Ala Glu Ile Pro Ala Glu Gln Ala Ser Val Asp Ala Ser His Ser
            20                  25                  30
Asp Ser Asp Ser Asp Gly Lys Ile Asn Trp Thr Asn Lys Leu Ala Ile
        35                  40                  45
Glu Ala Thr Glu Cys Val Phe Arg Gly Val Arg Leu Ser Val Pro Pro
    50                  55                  60
Phe Pro Phe Arg Gln Arg Trp Asn Glu Ala Ala Cys His Glu Ile Gly
65                  70                  75                  80
Glu Arg Lys Asn Arg Gly Arg Lys Arg Lys Arg Arg Glu Tyr Glu Glu
                85                  90                  95
Cys Asp Asp Glu Glu Tyr Glu Tyr Val Asp Asn Gly Asn Phe Gln Arg
            100                 105                 110
Met Tyr Asp Thr Ile Ala Ala Ala Ala Leu Ala Thr Ile Ala Ala Ala
        115                 120                 125
Asn Thr Thr Ser His Pro Thr Lys Arg Arg Lys Lys Ala Met Lys Lys
    130                 135                 140
Lys Gln Gly Gly Gly Ser Pro Gly Ser Ala Gly Ser Pro Ala
145                 150                 155

<210> 38338
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38338
Asn Gly Asn Lys Thr Asn Glu Arg Glu Ser Phe Pro Leu Leu His Asn
1               5                   10                  15
Leu Arg Glu Gly Lys Cys Val Pro Gln Ser Asn Met Thr Arg Cys Val
            20                  25                  30
Ser Tyr Phe Tyr Val Tyr Lys Tyr Ile Val Leu Gln Gly Pro Asp Tyr
        35                  40                  45
Ile Ser Gly Asn Ile Thr Val Ser Leu His Tyr Leu Lys Tyr Cys Leu
    50                  55                  60
Cys Lys Ile Val
65

<210> 38339
<211> 75
<212> PRT
<213> A.fumigatus

<400> 38339
Gly Thr Val Asp Phe Tyr Asp Trp Val Asp Cys Met Ser Leu Phe Val
1               5                   10                  15
```

```
Arg Leu Gly Arg Gln His Thr Asp Glu Thr Leu Gln Ser Phe Phe Tyr
            20                  25                  30
Leu Pro Gln Ser Pro Thr His Thr Lys Ser Val Leu Tyr Pro Arg Ser
        35                  40                  45
Trp Tyr Thr Glu Arg Glu Glu Val Ile Met Ile Asn Val Cys Pro Thr
    50                  55                  60
Ile Val Pro Ala Ser Pro Val Leu Thr Asp Ala
65                  70                  75
```

<210> 38340
<211> 110
<212> PRT
<213> A.fumigatus

<400> 38340

```
Gln Cys Asp Glu Gly Thr Thr Ile Gln Leu Val Cys Phe Leu Ala Ala
1               5                   10                  15
Glu Phe Pro Val Gln Leu Leu Thr Lys Arg Phe Gly Phe Lys Arg Val
            20                  25                  30
Leu Pro Cys Met Met Met Ala Trp Ser Leu Val Ser Trp Thr Gln Ala
        35                  40                  45
Trp Met Thr Ser Arg Ala Ser Phe Tyr Val Thr Arg Ala Leu Ile Gly
    50                  55                  60
Ala Cys Glu Gly Gly Phe Ile Pro Gly Ala Ile Leu Phe Ala Thr Tyr
65                  70                  75                  80
Phe Tyr Lys Thr Gly Glu Leu Ser Val Arg Leu Ser Phe Phe Trp Ser
                85                  90                  95
Thr Leu Asn Val Ser Pro Pro Asn Ser Leu Ala Val Asn Arg
            100                 105                 110
```

<210> 38341
<211> 92
<212> PRT
<213> A.fumigatus

<400> 38341

```
Trp Asn Glu Val Ala Arg Ile Ile Ser Ser Leu Leu Ala Ala Gly Ile
1               5                   10                  15
Leu Gln Met Arg Gly Val Arg Gly Lys Thr Gly Trp Phe Trp Leu Phe
            20                  25                  30
Leu Ile Glu Gly Leu Leu Thr Phe Thr Ile Gly Leu Ile Val Cys Leu
        35                  40                  45
Phe Ser Ser Gly Trp Asp Gly Asn Thr Leu Thr Lys Pro Ser Arg Ala
    50                  55                  60
Ser Ser Thr Ser Pro Ser His Gln Arg Thr Pro Arg Ala Ser Ser Thr
65                  70                  75                  80
Pro Gly Pro Gly Thr Pro Ser Ala Arg Lys Ser Ser
                85                  90
```

<210> 38342
<211> 281
<212> PRT
<213> A.fumigatus

<400> 38342

```
Pro Arg Ser Asn Arg Cys Met Ile Gln Arg Leu Leu Arg Asp Asp Pro
```

```
1               5                   10                  15
Ser Lys Gly Leu Thr His Ile His Asp Arg Ala Thr Leu Thr Asp Ile
            20                  25                  30
Leu Asn Ala Trp Ser Asp Lys Ser Met Trp Gly Leu Tyr Leu Ile Gly
        35                  40                  45
Leu Val Ala Tyr Ile Pro Gln Ser Pro Val Gln Ala Tyr Leu Ser Leu
    50                  55                  60
Thr Leu Lys Arg Leu Gly Phe Ser Thr Phe Asp Ala Asn Met Leu Ser
65                  70                  75                  80
Ile Pro Ser Ala Ala Leu Gln Ile Ile Leu Met Leu Ala Leu Ser Lys
                85                  90                  95
Ser Ser Glu Phe Phe Lys Glu Arg Thr Phe His Cys Phe Ile Gly Glu
            100                 105                 110
Leu Trp Ser Leu Pro Leu Leu Ala Ala Leu Leu Ala Leu Pro Ala His
        115                 120                 125
Gly His Asn Trp Gly Arg Phe Ala Ile Thr Thr Met Ile Ser Gly Tyr
    130                 135                 140
Pro Tyr Phe His Pro Ile Val Ser Ser Trp Ile Ser Glu Asn Thr Phe
145                 150                 155                 160
Asp Val Lys Lys Arg Ala Ile Thr Ala Ala Thr Tyr Asn Val Ile Val
                165                 170                 175
Gln Val Gly Ser Val Ile Ser Ser Arg Lys Phe Leu Arg Met Leu Ala
            180                 185                 190
Leu Val Cys Pro Lys Lys Ala Asp Gly Ala Glu Ile Tyr Arg Ala Asp
        195                 200                 205
Asp Ser Pro Tyr Tyr Tyr Arg Gly Asn Lys Val Leu Ile Ser Ile Cys
    210                 215                 220
Val Leu Ser Leu Ile Val Phe Val Ala Gln Arg Glu Phe Leu Arg Tyr
225                 230                 235                 240
Leu Asn Arg Gln Lys Glu Arg Lys Trp Ser Thr Met Ser Ala Glu Glu
                245                 250                 255
Lys Val Leu Tyr Gln Ser Asp Gln Glu Ala Arg Glu Lys Glu Gly Asn
            260                 265                 270
Lys Arg Leu Asp Phe Arg Phe Lys Tyr
        275                 280
```

<210> 38343
<211> 167
<212> PRT
<213> A.fumigatus

<400> 38343

```
Leu Asn Arg Leu Arg Ile Pro Thr Asn Ile Leu Ala Pro Pro Leu Tyr
1               5                   10                  15
Val Tyr His Met Arg Met Tyr Pro Val Trp Pro Ile Val Asn Ala Glu
            20                  25                  30
Ser Leu Ile Ser Val Leu Gln Glu Asp Thr Glu Arg Lys Asp Leu Ser
        35                  40                  45
Thr Tyr Thr Leu Ala Thr Ala Val Ala Ala Ala Thr Leu Ala Gln Leu
    50                  55                  60
Lys Leu Glu Asp Ser Thr Thr Gly Asp Ser Pro Thr Ala Asp Ala Phe
65                  70                  75                  80
Ala Ala Glu Cys Leu His Ala Arg Asp Ser Cys Gly Tyr Arg Ser Lys
                85                  90                  95
Pro Ser Leu Asp Asn Ile Arg Thr Ser Phe Phe Leu His Val Tyr Tyr
            100                 105                 110
```

```
Glu Asn Gln Gln Ser Gly Gly Ser Glu Ser Leu Leu Tyr Leu Arg Glu
        115                 120                 125
Ala Ile Thr Met Ala Gln Met Met Arg Leu His Gln Glu Ala Ser Tyr
    130                 135                 140
Ile Gly Leu Ser Pro Glu Glu Gln Gln Leu Arg Arg Arg Ile Leu Trp
145                 150                 155                 160
Leu Leu Phe Val Thr Glu Arg
                165
```

<210> 38344
<211> 181
<212> PRT
<213> A.fumigatus

```
<400> 38344
Arg Asn Gly Asn Phe His Leu Phe Met Ile Arg Gly Tyr Pro Asp Thr
1               5                   10                  15
Val Cys Arg Gly Val Cys Ile Leu His Gln Leu Pro Val Ile Leu Lys
            20                  25                  30
Thr Asn Ile Ser Thr Pro Gly Leu Asp Val Asn Asp Glu Pro Gln Val
        35                  40                  45
Leu Pro Ala Phe Leu Lys Leu Leu Asn Leu Phe Arg Leu Phe Glu Lys
    50                  55                  60
Ser Lys Met Phe Asp Val Ile Glu Cys Glu Ser Val Gly Pro His Asp
65                  70                  75                  80
Leu Ser Arg Ala Gly Pro Asp Gly Arg Phe Leu Lys Leu Leu Gln Asp
                85                  90                  95
Gly Leu Gln Asp Gly Ser Ala Leu Leu Asp His Thr Ser Asp Val Gln
            100                 105                 110
Lys Ala Asp Leu Cys Val Thr Arg His Trp Met Arg Leu Ile Leu Trp
        115                 120                 125
Lys Asn Leu Ser Arg Asn Arg Thr Thr Tyr Ala His Ser Pro Thr Ser
    130                 135                 140
Leu Phe Ser Pro Leu Phe Pro Val Met Val Ala Lys Glu Leu Val Ala
145                 150                 155                 160
Ile Val Thr Gln Leu Pro Arg Pro Ala Ile Glu Ala His Gly Leu Gly
                165                 170                 175
Met Val Arg Leu Ser
            180
```

<210> 38345
<211> 198
<212> PRT
<213> A.fumigatus

```
<400> 38345
Val Ser Ile Asn Met Pro Ala Ser Arg Ser Asn Val Thr Lys Arg Ala
1               5                   10                  15
Cys Asp Gly Cys Lys Ile Arg Lys Ile Arg Cys Gly Gly Gly Gln Pro
            20                  25                  30
Cys Val Ala Cys Thr Asn Ser Arg Ile Arg Cys Thr Tyr Ile Arg Val
        35                  40                  45
Gln Gln Pro Arg Gly Pro Gln Arg Leu Arg Ser Thr Thr Lys Tyr Leu
    50                  55                  60
Ile Glu Gln Thr Gln Arg Gly Leu Asp Ala Pro Asn Gly Arg Cys Ala
65                  70                  75                  80
```

```
Ser Ala Pro Val Glu Gln Ala Gly His Gln Gly His Gln Thr Glu Arg
                85                  90                  95
Tyr Val Leu Asn Leu Ser Ser His Ile Leu Glu Pro Phe Leu Thr Glu
            100                 105                 110
Gln Ile Ala Asn Thr Asp Gln His Pro Cys Pro Ser Ala Leu Arg Ile
        115                 120                 125
Ser His Ala His Val Ser Gly Leu Ala His Arg Gln Cys Arg Lys Pro
    130                 135                 140
His Leu Gly Thr Thr Gly Arg Tyr Arg Thr Lys Gly Ser Val Asn Leu
145                 150                 155                 160
Tyr Pro Gly Asn Ser Arg Arg Ser Ser His Pro Gly Ser Thr Gln Ala
                165                 170                 175
Arg Arg Phe Asp Tyr Arg Arg Leu Ala His Arg Arg Arg Leu Arg Gly
            180                 185                 190
Arg Val Leu Ala Cys Pro
        195
```

<210> 38346
<211> 62
<212> PRT
<213> A.fumigatus

<400> 38346

```
Arg Trp Pro Val Ser Glu Met Lys Arg Gln Glu Asp Met Leu Arg Thr
1               5                   10                  15
Tyr His Cys Asp Cys Lys Leu Phe Lys Val Asp Met Lys Arg Arg Phe
            20                  25                  30
Asp Gly Ala Thr Ser Arg Asn Asp Thr Thr Thr Leu Lys Ser Ala Leu
        35                  40                  45
Asp Ser Ala Lys Arg Ile Val Asn Arg Thr Leu His Leu Ile
    50                  55                  60
```

<210> 38347
<211> 224
<212> PRT
<213> A.fumigatus

<400> 38347

```
Arg Leu Thr Leu Asn Gly Asp Gly Ser Arg Leu Tyr Thr Leu Cys Arg
1               5                   10                  15
Asp Gly Thr Val Tyr Ala Tyr Ser Thr Ser His Leu Val Leu Gly His
            20                  25                  30
Ala Pro Glu Leu Ser Leu Tyr Asn Asp Arg Pro Arg Arg Ser Gly Gly
        35                  40                  45
Ser Asp Lys Glu Gly Leu Gly Pro Leu Tyr Gly Phe Arg His Pro Arg
    50                  55                  60
Leu Gln Val Ser Ser Phe Tyr Val Arg Val Ser Val Arg Lys Ala Val
65                  70                  75                  80
Ala Asp Lys Val Glu Met Leu Ala Val Gly Ser Ser Asp His Cys Ala
                85                  90                  95
Val Leu Phe Pro Thr Asp Glu Arg Phe Leu His Ser Arg Val Gln Asn
            100                 105                 110
Pro Ala Val Asp Leu Asn Pro Gln Ser Pro Gly Met Ser Phe Thr Arg
        115                 120                 125
Ser Gly Leu Arg Arg Thr Asn Ser Ala Val Gly Leu Ser Gly Arg Leu
    130                 135                 140
```

```
Glu Asp Thr Val Pro Ile Tyr Gln Ser Gly Thr Pro Leu Val Glu Gly
145                 150                 155                 160
His Lys Lys Glu Val Ser Ala Val Ser Trp Ser Val Asp Gly Glu Leu
                165                 170                 175
Ile Thr Val Ser Asp Asp Tyr Ser Ala Arg Cys Trp Arg Glu Gly Pro
            180                 185                 190
Asp Ala Arg Asp Leu Arg Val Gly Gly Glu Thr Glu Gly Arg Arg Trp
        195                 200                 205
Lys Cys Gly Trp Ala Asp Ile Glu Asn Gln Tyr Asp Asp Asp Asp Glu
    210                 215                 220
```

<210> 38348
<211> 152
<212> PRT
<213> A.fumigatus

<400> 38348

```
Arg Leu Leu Asp Ser Ile Leu Val Cys Ile Met Ala Ser Gln Thr Pro
1               5                   10                  15
Ala Asp Thr Ser Val Ala Ala Asp Pro Val Thr Leu Pro Asp Arg Ser
            20                  25                  30
Gln Asn Pro Ala Asp Ala Asp Lys Ala Ala Pro Gln Gly Glu Thr Ser
        35                  40                  45
Lys Asn Ala Ala Lys Lys Ala Ala Lys Leu Ala Lys Gln Ala Ala Glu
    50                  55                  60
Lys Ala Glu Lys Ala Ala Asn Lys Gly Ile Gly Lys Ser Glu Ala Lys
65                  70                  75                  80
Lys Ala Thr Ser Lys Ala Pro Lys Lys Lys Ile Glu Gly Ala Ala Leu
                85                  90                  95
Ile Gly Ile Asp Val Ser Lys Glu Glu Asp Phe Pro Gly Trp Tyr Gln
            100                 105                 110
Gln Val Leu Thr Lys Gly Asp Met Leu Asp Tyr Tyr Asp Val Ser Gly
        115                 120                 125
Cys Phe Ile Leu Lys Val Arg Ser Phe Ala Val Leu His Pro Gln Ala
    130                 135                 140
Ala Glu Gly Ser Glu Gln Cys Gly
145                 150
```

<210> 38349
<211> 348
<212> PRT
<213> A.fumigatus

<400> 38349

```
Val Gly Asp Gly Thr Thr Ser Val Val Leu Ile Ala Ala Glu Leu Leu
1               5                   10                  15
Arg Arg Ala Asn Glu Leu Met Lys Asn Arg Ile His Pro Thr Thr Ile
            20                  25                  30
Ile Asn Gly Tyr Arg Leu Ala Leu Arg Glu Ala Val Lys Tyr Met Asn
        35                  40                  45
Glu Asn Ile Thr Thr Lys Val Asp Ala Leu Gly Lys Asp Ser Leu Val
    50                  55                  60
Asn Ile Ala Lys Thr Ser Met Ser Ser Lys Ile Ile Gly Ala Asp Ala
65                  70                  75                  80
Asp Phe Phe Ala Asn Met Val Val Asp Ala Met Leu Leu Val Lys Thr
                85                  90                  95
```

```
Thr Asn Gln Lys Asn Glu Val Lys Tyr Pro Val Lys Ala Val Asn Leu
            100                 105                 110
Leu Lys Ala His Gly Lys Ser Gly Thr Glu Ser Met Leu Val Lys Gly
        115                 120                 125
Tyr Ala Leu Asn Cys Thr Val Ala Ser Gln Ala Met Lys Thr Arg Ile
    130                 135                 140
Thr Asp Ala Lys Ile Ala Cys Leu Asp Met Asn Leu Gln Lys Glu Arg
145                 150                 155                 160
Met Lys Leu Gly Val Gln Ile Thr Val Asp Asp Pro Asp Gln Leu Glu
                165                 170                 175
Lys Ile Arg Glu Arg Glu Ser Gly Ile Val Leu Glu Arg Val Glu Met
            180                 185                 190
Ile Leu Lys Ser Gly Ala Asn Val Ile Phe Thr Thr Lys Gly Ile Asp
        195                 200                 205
Asp Met Val Leu Lys Leu Phe Val Glu Arg Gly Ala Met Ala Val Arg
    210                 215                 220
Arg Cys Lys Lys Glu Asp Leu Arg Arg Ile Ala Lys Ala Thr Gly Ala
225                 230                 235                 240
Thr Leu Val Ser Ser Leu Ser Asp Leu Asn Gly Asp Glu Lys Phe Asp
                245                 250                 255
Ala Ser Asn Leu Gly Tyr Ala Glu Glu Val Val Gln Glu Arg Ile Ser
            260                 265                 270
Asp Asp Glu Cys Ile Leu Val Lys Gly Thr Lys Val His Thr Ser Ala
        275                 280                 285
Ser Ile Ile Leu Arg Gly Pro Asn Asp Tyr Ser Leu Asp Glu Met Glu
    290                 295                 300
Arg Ser Val His Asp Ser Leu Cys Ala Val Lys Arg Thr Leu Glu Ser
305                 310                 315                 320
Gly Ser Ile Val Pro Gly Gly Gly Ala Val Glu Thr Ala Leu His Ile
                325                 330                 335
Tyr Leu Glu Glu Phe Ala Val Thr Val Val Arg Ser
            340                 345
```

<210> 38350
<211> 142
<212> PRT
<213> A.fumigatus

```
<400> 38350
His Ile Leu Leu Thr Phe His Phe Ala Asn Gly Pro Ser Ser Gln Gly
1               5                   10                  15
Ser Arg Glu Gln Leu Ala Ile Gly Glu Phe Ala Gln Ser Leu Leu Ile
            20                  25                  30
Val Pro Lys Thr Leu Ala Val Asn Ala Ala Lys Asp Ser Ser Glu Leu
        35                  40                  45
Val Ala Gln Leu Arg Ser Arg His Trp Ala Ser Gln Arg Ile Glu Glu
    50                  55                  60
Ser Pro Ala Asn Lys Asp Asp Lys Ala Ile Ala Lys Lys Lys Asn Tyr
65                  70                  75                  80
Lys Asn Tyr Gly Leu Asp Leu Thr Lys Gly Arg Val His Asp Cys Ile
                85                  90                  95
Lys Ala Gly Val Leu Glu Pro Ser Met Gly Lys Val Lys Gln Phe Lys
            100                 105                 110
Ser Ala Val Glu Ala Cys Ile Ala Ile Met Arg Ile Asp Thr Met Ile
        115                 120                 125
Lys Leu Asp Pro Glu Arg Lys Glu Asp Asp Gly His Gly His
```

130 135 140

<210> 38351
<211> 87
<212> PRT
<213> A.fumigatus

<400> 38351
Gln Gly Ile Asp Ile Leu Gln Ile Tyr Leu Pro Glu Pro Lys Asp Leu
1 5 10 15
Asp Leu Phe Gly Met Gln Asp Glu Asp Ile His Ile Asn Leu Trp Leu
20 25 30
Thr Lys Gln Lys Ile Ile Ile Gly Leu Val Val Cys Phe Arg Leu Phe
35 40 45
Asp Val Met Val Pro Gly Val Phe Phe Leu Ser Ala Cys Ala Ser Gly
50 55 60
Leu Ser Pro Ser Ser Ser Ser Gly Ser Ser Val Phe Pro Met Val Asn
65 70 75 80
Gly Cys Arg Asn Asp Asn Gly
85

<210> 38352
<211> 61
<212> PRT
<213> A.fumigatus

<400> 38352
Lys Val Pro Ser Ala Gly Gly Met Ile Ala Ile Asp Pro Lys Val Gln
1 5 10 15
Met Ala Leu Gly Thr Ser Leu Arg Pro Gly Phe Gln Arg Pro Ser Cys
20 25 30
Ser Tyr Arg Asn Ile Thr Met Leu Leu Leu Ile Met His Arg Met Gly
35 40 45
Lys Thr Arg Ser Leu His Ser Gly Ile Ser Ser Leu Pro
50 55 60

<210> 38353
<211> 240
<212> PRT
<213> A.fumigatus

<400> 38353
Ala Arg Glu Leu Thr Asp Glu Lys Cys Leu His Ile Tyr Ile Ser Ala
1 5 10 15
Cys Ser Val Glu Cys Arg Leu Arg Tyr Arg Ala Ser Thr Pro Cys Pro
20 25 30
Thr Ala Phe Asn Arg Leu Leu Gln Thr Val Thr Met Asp Pro Phe Pro
35 40 45
Ser Glu Pro Tyr Arg Ser Ala Arg Leu Leu Tyr Arg Ala Pro Glu Asp
50 55 60
Asn Pro Ala Asp Asp Ala Phe Phe His Ala Leu Tyr Ala Asp Pro Val
65 70 75 80
Val Gly Ser Met Ala Thr Thr Ala Leu Leu Arg Pro Leu Ser Thr Lys
85 90 95
Glu Arg Lys Glu Leu Arg Ala Lys Leu Ser Asp Val Phe Met Ser Val
100 105 110

```
Met Ile Cys Ile Ile Pro Asp Glu Gly Ser Asp Lys Glu Pro Glu Thr
        115                 120                 125
Ile Gly Val Val Ser Leu Lys Lys Glu Ala Ser Asp Phe Ala His Asn
    130                 135                 140
Arg Thr Tyr Glu Leu Gly Ile Ser Ile Ala Arg Gln Asn Gln Asp Lys
145                 150                 155                 160
Gly Tyr Gly Ser Glu Ala Ile Ser Trp Met Leu Asp Trp Ala Phe Leu
                165                 170                 175
Thr Ala Gly Leu His Arg Val Glu Leu Val Val Ala Glu Trp Asn Glu
            180                 185                 190
Arg Ala Gln Lys Val Tyr Arg Arg Leu Gly Phe Ala Ser Glu Gly Arg
        195                 200                 205
Lys Arg Gln Cys Leu Trp Lys Ala Gly Arg Trp Trp Asp Leu Leu Phe
    210                 215                 220
Met Gly Ile Leu Ala His Glu Trp Glu Ala Lys Lys Ala Ala Gly Ser
225                 230                 235                 240
```

<210> 38354
<211> 142
<212> PRT
<213> A.fumigatus

<400> 38354

```
Pro Pro Val Ser Arg Thr Pro Pro Trp Val Pro Ser Pro Phe Ile Ile
1               5                   10                  15
Leu Ala Pro Ser His Arg Asn Ala Phe Lys Met Ser Thr Asp His Ser
            20                  25                  30
Ala Arg Ser Pro Arg Pro Arg Ala Cys Val Arg Cys Gln Gln Arg Lys
        35                  40                  45
Val Arg Cys Asp His Lys Ser Pro Cys Gly Asn Cys Val Ala Ser Glu
    50                  55                  60
Thr Gln Cys Val Thr Ala Thr Leu Thr Pro Arg Arg Arg Arg Phe Gln
65                  70                  75                  80
Glu Lys Val Leu Leu Asp Arg Leu Arg His Tyr Glu Gly Leu Leu Arg
                85                  90                  95
Gln His Asn Ile Asp Phe Glu Pro Leu His Pro Gln Ala Lys Pro Asp
            100                 105                 110
Pro Val Gly Ala Ala Val Ser Arg Ala Cys Gly Arg Ser Glu Pro Ala
        115                 120                 125
Arg Ala Gln Thr Pro Val Gln Ser Gln Ala Val Phe Asp Thr
    130                 135                 140
```

<210> 38355
<211> 66
<212> PRT
<213> A.fumigatus

<400> 38355

```
Phe Arg Arg Val Ser Thr His Gln Lys Gly Ala Ser Gly Leu Ala Cys
1               5                   10                  15
Ile Ser Asn Ser Leu Glu Leu His Leu Ile Phe Pro Val Arg Phe Asn
            20                  25                  30
Leu Glu Thr Thr Pro His His Tyr Gly Leu Ala Arg Ile Arg Phe Asp
        35                  40                  45
Ile Ser Cys Ser Ile Met Gln Pro His Gln Lys Gly Lys Lys Leu Leu
    50                  55                  60
```

Gly Ile
65

<210> 38356
<211> 225
<212> PRT
<213> A.fumigatus

<400> 38356
Val Ser Val Ser Pro Gln Thr Asp Pro Arg Ser Leu Ser Ser Met Leu
1 5 10 15
Ala Ala Ala Leu Arg Ile Ala Gln Arg Met Gly Leu His Asn Glu Ser
20 25 30
Thr Tyr Thr Pro Tyr Thr Ala Val Lys Ala Glu Met Pro Gln Lys Ile
35 40 45
Trp Trp Ser Leu Val Ile Phe Asp His Arg Met Cys Glu Met Ser Asp
50 55 60
Tyr Lys Val Thr Thr Leu Thr Pro Thr Trp Asp Cys Gln Ile Pro Leu
65 70 75 80
Asn Val Asn Asp Val Glu Ile Arg Pro Asp Thr Asn Ser Trp Ala Pro
85 90 95
Asn Asn Glu Lys Pro Thr Glu Ala Leu Phe Ala Val Val Cys Ser Glu
100 105 110
Leu Ala Asp Arg Ile Arg His Thr Thr Phe His Ile Asn Phe Val Asn
115 120 125
Pro Val Leu Ala Ala Val Ala Lys Ala Lys Asn Pro Gly Arg Met Ser
130 135 140
Ile Pro Ala Asp Asp Glu Met Leu Thr Ile Gln Lys Thr Ile Glu Glu
145 150 155 160
Lys Tyr Leu Ala Phe Cys Asp Pro Thr Asp Pro Leu Arg Tyr Met Ala
165 170 175
Ile Trp Thr Thr Arg Gly Tyr Leu Ala Arg Asn Arg Leu Leu Glu His
180 185 190
Tyr Ala Arg His Leu Thr Ser Pro Ala Met Gln Gln Thr Asp Ala Gln
195 200 205
Arg Asn Ala Ala Leu Phe Tyr Ala Leu Gln Met Leu Glu Cys Asp Thr
210 215 220
Asn
225

<210> 38357
<211> 270
<212> PRT
<213> A.fumigatus

<400> 38357
Ala Ala Gly Leu Thr His Tyr Ala Gln Ala Leu Glu Thr Asn Arg Gly
1 5 10 15
Glu Leu Lys Thr Leu Lys Gln Glu Leu Asp Glu Lys Val Ala Glu Leu
20 25 30
Asn Glu Thr Arg Ala Thr Glu Ile Glu Met Arg Asn Lys Leu Glu Glu
35 40 45
Asn Gln Lys Ala Leu Thr Glu Asn Glu Lys Arg Gln Arg Tyr Trp Ser
50 55 60
Glu Lys Leu Ser Lys Leu Thr Leu Gln Asn Val Ser Asp Leu Gly Glu
65 70 75 80

```
Glu Gln Gln Pro Thr Glu Leu Gln Met Tyr Thr Lys Asp Glu Leu Ser
                85                  90                  95
Glu Met Asn Lys Glu Ser Leu Lys Ala Val Ile Ala Ala Leu Glu Glu
            100                 105                 110
Lys Thr Gln Asn Ala Ser Val Asp Leu Ser Val Ile Glu Glu Tyr Arg
        115                 120                 125
Arg Arg Ala Ala Glu Tyr Glu Ser Arg Ala Ala Asp Leu Ala Thr Ala
    130                 135                 140
Leu Ala Ser Arg Asp Ser Ala Lys Ala Arg Leu Asp Gly Leu Arg Ser
145                 150                 155                 160
Ala Arg Leu Asn Gly Phe Met Glu Gly Phe Gly Ile Ile Ser Leu Arg
                165                 170                 175
Leu Lys Glu Met Tyr Gln Met Ile Thr Met Gly Gly Asn Ala Glu Leu
            180                 185                 190
Glu Leu Val Asp Ser Leu Asp Pro Phe Ser Glu Gly Ile Leu Phe Ser
        195                 200                 205
Val Met Pro Pro Lys Lys Ser Trp Lys Asn Ile Gly Asn Leu Ser Gly
    210                 215                 220
Gly Glu Lys Thr Leu Ser Ser Leu Ala Leu Val Phe Ala Leu His His
225                 230                 235                 240
Tyr Lys Pro Thr Pro Leu Tyr Val Met Asp Glu Ile Asp Ala Ala Leu
                245                 250                 255
Asp Phe Arg Asn Val Ser Thr Phe Thr Thr Ser Gly Gln Asp
            260                 265                 270
```

<210> 38358
<211> 152
<212> PRT
<213> A.fumigatus

<400> 38358

```
Ser Pro Ser Ala Gly Pro Ser Ser Pro Val Val Lys Thr Leu Glu Glu
1               5                   10                  15
Glu Ile Glu Asp Leu Arg Ala Gln Lys Gly Gly Ile Glu Glu Glu Ile
            20                  25                  30
Gln Thr Leu Gln Asn Lys Ile Met Glu Val Gly Gly Val Arg Leu Arg
        35                  40                  45
Ser Gln Lys Ala Lys Val Glu Gly Leu Lys Glu Gln Ile Ser Leu Leu
    50                  55                  60
Ala Glu Glu Ile Ser Asn Ala Glu Ile Gly Lys Ser Lys Asn Glu Lys
65                  70                  75                  80
Leu Ile Met Lys His Gln Lys Ala Arg Ala Glu Ala Glu Arg Glu Leu
                85                  90                  95
Glu Gln Val Ala Glu Gly Leu Glu Lys Leu Asn Ala Asp Val Glu Asn
            100                 105                 110
Gln Ala Asn Asp Ala Ser Gly Trp Lys Gln Gly Val Glu Glu Ala Gln
        115                 120                 125
Glu Val Arg Val Gln Gln Ser Pro Met Val Ser Ser Arg Thr Asn Thr
    130                 135                 140
Leu Arg Ala Gly Leu Gly Asp Glu
145                 150
```

<210> 38359
<211> 100
<212> PRT
<213> A.fumigatus

<400> 38359
Thr Met Ala Ser Glu Tyr Met Asp Thr Glu Phe Met Val Gln Ser Arg
1 5 10 15
Val Ser Val Pro Ser Leu Phe Thr Ser Leu Phe Thr Phe Leu Ser Pro
20 25 30
Ser Phe Ser Ser Phe Phe Leu Thr Phe Leu Ile His Ala Ser Leu Pro
35 40 45
Glu Cys Val Asp Lys Ser Gln Val Thr Leu Gly Gly Tyr Val Phe Phe
50 55 60
Phe Phe Ile Leu Ile Pro Leu Arg Cys Leu Leu Thr Tyr Ile Ala Phe
65 70 75 80
Thr Pro Ala Phe Asn Val Asn Tyr Glu Gly Arg Gln Gly Leu Pro Ala
85 90 95
Leu Gly Ser Ser
100

<210> 38360
<211> 481
<212> PRT
<213> A.fumigatus

<400> 38360
His Phe His Ile Ser Arg Gly Phe Trp Val Leu Met Glu Ala Phe Ser
1 5 10 15
Val Arg Lys Asp Ser Val Leu Thr Met Pro Leu Tyr Gln Leu Ser Leu
20 25 30
Thr His Phe Cys Glu Val His Gly Pro Thr Ser Ile Ile Cys Ser Gln
35 40 45
Val Leu Pro Phe Ser Cys Ser Gln Cys Tyr Pro Glu Thr Ser Asp Phe
50 55 60
Ser Pro Asp Asp Thr Pro Ala Thr Ser His Asp Thr Gln Ser Ser His
65 70 75 80
Gly Met Arg Asn Arg Leu Gly Asp Ala Arg Asp Thr Lys Ala Thr Lys
85 90 95
Arg Pro Asp Ala Ser Gly Ala Thr Val Gly Lys Ser Pro Lys Ile Glu
100 105 110
Asp Ser Pro Tyr Phe Leu Lys Asn Gln Pro Asn Ser Ser Glu Pro Ser
115 120 125
Lys Leu Asn Ile Leu Gly Gly Ala Asp Gly Asp Thr Cys Ala Ser Cys
130 135 140
Ser Leu Thr Leu Pro Asp Asp Val Ser Arg Gln Leu Pro Pro Gly Ala
145 150 155 160
Pro Gly Thr Ala Ser Arg Asp Gly Lys Gly Arg Asn Ser Ser Pro Val
165 170 175
Leu Arg Ser Arg Glu Val Val Tyr Ser Cys Gly Thr Ser His Ser Asp
180 185 190
Gly Asp Asp Ser Ala His Asp Leu His Gly His Ala Ser Leu Pro Asp
195 200 205
Ser Ile His Ser Ser Ser Val Ala Ser Asp Ala Ser Cys His Thr His
210 215 220
Ile Leu Thr Tyr Leu Ser Leu Arg Gly Pro Pro Asn Pro Ser Asp Tyr
225 230 235 240
Ala Leu Leu Arg Arg Ser Ser Ile Arg Thr Leu Ser Cys Glu Leu Leu
245 250 255
Pro Arg Gly Leu Ser Ser Gly Pro Leu Cys Phe Gly Asp Ala Thr Ala

```
            260                 265                 270
Gly Tyr Thr Ile Ala Tyr Val Phe Arg Leu Pro Asp Pro Met Ala Arg
        275                 280                 285
Gly Lys Arg Arg Ser Tyr Ala Leu Val Ala Leu Ala Gly Lys Asp Ala
    290                 295                 300
Gly Arg Ala Phe Arg Ala Cys Pro Val Ile Trp Arg Ala Phe Gly Arg
305                 310                 315                 320
Ile Ala Thr Gly Ile Val Asn Ser Ala Glu Lys Tyr Gln Glu Glu Glu
                325                 330                 335
Ala Lys Arg Leu Glu Glu Gln Asn Asp Ala Ala Asn Arg Ala Asn Asn
            340                 345                 350
Arg His Tyr Thr Pro Val Ser Ser Phe Leu Thr Gly Arg Arg Val Asp
        355                 360                 365
Pro Asp Gly Gln Pro Arg Arg Leu Gly Gln Ile Arg Ala Arg Asn Leu
    370                 375                 380
Ser Glu Ile Val Gly Asn Gln Tyr Ile Phe Ala Glu Ile His Ala His
385                 390                 395                 400
Phe Val Ala Leu Leu Gln Gln Leu Gly Ser Met Phe Gly Ala Val Pro
                405                 410                 415
Ile Ser Glu Glu Arg Phe Ile Cys Ser Thr Leu Gly Asp Asp Val Asp
            420                 425                 430
Val Lys Ser Arg Arg Gly Thr Ser Ile Asp Asn Gly Lys Asp Ser Thr
        435                 440                 445
Ser Lys Gly Lys Ser Glu Ser Asp Phe Gly Leu Ser Gly Leu Asp Leu
    450                 455                 460
Ser Ser Gly Pro Lys Pro Ile Pro Ile Ala Ala Arg Arg Thr Val Ile
465                 470                 475                 480
Ala
```

<210> 38361
<211> 80
<212> PRT
<213> A.fumigatus

<400> 38361

```
Leu Leu Ile Leu Gly Phe Ser Asp Phe Cys Ile Arg Asn Phe Phe Cys
1               5                   10                  15
Glu Glu Thr Asp Leu Phe Leu Gln Pro Leu Asn Leu Arg Leu Leu Thr
            20                  25                  30
Ser Gln Pro Asn Ser Ala Asn Phe His Asp Phe Val Leu Glu Ser Leu
        35                  40                  45
Asp Phe Phe Leu Asn Thr Ala Leu Leu Gly Ser Glu Val Phe Asp Phe
    50                  55                  60
Phe Leu Lys Gly Leu His His Gly Ala Gly Arg Thr Arg Ala Arg Arg
65                  70                  75                  80
```

<210> 38362
<211> 228
<212> PRT
<213> A.fumigatus

<400> 38362

```
Leu Ile Pro Thr Gly Glu Tyr Ile Tyr Lys Gly Arg Lys Phe Asn Ala
1               5                   10                  15
Arg Lys Asp Thr Thr Asp Gln Lys Tyr Leu Asn Ile Pro Ile Tyr Arg
```

```
            20                  25                  30
Phe Tyr Ile Arg Cys Thr Arg Cys Ser Gly Glu Ile Thr Phe Leu Thr
        35                  40                  45
Asp Pro Lys Ala Met Asp Tyr Lys Ala Glu Lys Gly Ala Lys Arg Asn
    50                  55                  60
Phe Glu Pro Trp Arg Asp Ala Lys Asn Asp Ile Glu Glu Thr Glu Gln
65                  70                  75                  80
Glu Thr Leu Asp Arg Leu Glu Arg Glu Glu Asn Glu Glu Gln Glu Arg
                85                  90                  95
Leu Glu Arg Asp Lys Met Ala Glu Leu Glu Glu Lys Met Leu Asp Ser
            100                 105                 110
Lys Arg Glu Met Ala Ile Ala Asp Ala Leu Asp Glu Ile Arg Thr Arg
        115                 120                 125
Asn Ala Arg Ile Glu Arg Asn Glu Ala Leu Ser Gly Asp Val Ala Leu
    130                 135                 140
Ala His Val Arg Asn Glu Val Asp Glu Ala Arg Leu Arg Glu Glu Lys
145                 150                 155                 160
Glu Ile Glu Glu Ala Ala Arg Arg Ala Phe Thr Thr Glu Thr Gly Glu
                165                 170                 175
Lys Val Lys Arg Leu Val Glu Asp Asp Thr Ile Ala Gly Thr Thr Pro
            180                 185                 190
Gly Ser Ser Gln Thr Glu Thr Pro Pro Pro Pro Ser Phe Ala Arg Val
        195                 200                 205
Lys Lys Pro Lys Lys Pro Leu Ser Ser Pro Arg Gly Cys Glu Glu Arg
    210                 215                 220
Ser Glu Leu Arg
225
```

<210> 38363
<211> 720
<212> PRT
<213> A.fumigatus

```
<400> 38363
Thr Asp Ser Trp Lys Ser Asn Arg Leu Thr Cys Ser Gln Asp Ser Asp
1               5                   10                  15
Ser Asp Ala Phe Trp Leu Ala Gln Val His Phe Ser Asn Asn Asn Tyr
            20                  25                  30
Thr Arg Ala Leu Ala Leu Leu Ser Arg Lys Asp Leu Ile Ser Arg Ser
        35                  40                  45
Thr Ala Cys Arg Tyr Leu Ala Gly His Cys Tyr Ile Lys Gln Asn Gln
    50                  55                  60
Phe Asp Gln Ala Leu Ser Val Leu Gly Asp His Asn Pro Thr His Leu
65                  70                  75                  80
Ile Arg Ser Ser Asn Ser Arg Arg Lys Leu Gln His Leu Thr Leu Arg
                85                  90                  95
Asn Gly Lys Thr Thr Ala Ser Arg Ile Asp Arg Asn Glu Glu Arg Glu
            100                 105                 110
Arg Glu Asp Ala Asn Asn Ile Arg Phe Glu Ala Ala Met Cys Tyr Leu
        115                 120                 125
Arg Gly Leu Cys Phe Ala Lys Gln Asn Ala Phe Asp Arg Ala Arg Asp
    130                 135                 140
Cys Tyr Lys Asp Ala Val Arg Ile Asp Val Gln Cys Phe Glu Ala Phe
145                 150                 155                 160
Asp Gln Leu Met Lys Asn Ser Leu Met Ser Pro Ala Glu Glu Leu Glu
                165                 170                 175
```

```
Phe Leu Glu Ser Leu Asp Phe Asp Ala Val Ser Ser Pro Asp Pro Ser
            180                 185                 190
Val Ala Gln Glu Ala Ala His Phe Thr Lys Met Leu Tyr Thr Thr Arg
        195                 200                 205
Leu Ser Lys Tyr Ser Ser Pro Ala Ile Leu Ser Asp Ala Thr Glu Thr
    210                 215                 220
Leu Ser Thr His Tyr Asn Leu Ala Glu Asn Pro Asp Ile Leu Leu Ser
225                 230                 235                 240
Arg Ala Glu Ala Leu Tyr Thr Gln Cys Arg Phe Ala Glu Ala Leu Glu
                245                 250                 255
Leu Thr Ser Ser Ile Leu Ala Thr Glu Ala Ser Thr Thr Pro Asn Val
            260                 265                 270
Pro Ala Leu Ser His Leu Gly His Pro Pro Ala Val Tyr Pro Leu His
        275                 280                 285
Leu Ala Cys Leu Tyr Glu Thr Gly Ala Thr Asn Ala Leu Phe Leu Leu
    290                 295                 300
Ala His Thr Leu Ala Asp His Ala Pro Glu Glu Pro Tyr Thr Tyr Leu
305                 310                 315                 320
Ala Ile Gly Val Tyr Tyr Leu Ser Val Ser Lys Ile Ala Glu Ala Arg
                325                 330                 335
Arg Phe Phe Ser Lys Ala Ser Leu Leu Asp Pro His Ser Ala Pro Ala
            340                 345                 350
Trp Ile Gly Phe Ala His Thr Phe Ala Ala Glu Gly Glu His Asp Gln
        355                 360                 365
Ala Ile Ala Ala Tyr Ser Thr Ala Ala Arg Leu Phe Gln Gly Ser His
    370                 375                 380
Leu Pro Gln Leu Phe Leu Gly Met Gln His Leu Ala Leu Asn Asn Met
385                 390                 395                 400
Ser Leu Ala His Glu Tyr Leu Ser Ala Ala Tyr Ala Met Ser Thr Gly
                405                 410                 415
Ala Ala Ala Gly Thr Val Pro Ser Ile Pro Ala Asn Pro Ser Gly Asp
            420                 425                 430
Ala His Gly Gly Asp Pro Leu Val Leu Asn Glu Leu Gly Val Val Leu
        435                 440                 445
Tyr His Gln Asn His Leu Glu Gly Ala Val Glu Leu Phe Asn Gln Ser
    450                 455                 460
Leu Ala Leu Ala Thr Ala Leu His Cys Glu Pro Gly Ala Trp Val Ala
465                 470                 475                 480
Thr Arg Ala Asn Leu Gly His Ala Leu Arg Arg Ile Gly Arg Leu Val
                485                 490                 495
Glu Ala Leu Ala Glu Phe Asp Glu Cys Leu Arg Ile Gly Ala Gly Gly
            500                 505                 510
Ala Gly Val Ala Tyr Gly Pro Phe Leu Gly Gly Ser Gly Ser Ser Ala
        515                 520                 525
Ser Gly Val Ala Ser Ser Gly Val Gly Gly Tyr Glu Asp Arg Gly Leu
    530                 535                 540
Ile Gly Ser Leu His Thr Ser Arg Gly Leu Val Leu Leu Glu Leu Gly
545                 550                 555                 560
Arg Thr Met Glu Ala Val Thr Ala Leu His Glu Ala Val Arg Val Leu
                565                 570                 575
Gly Ala Ser Gly Gly Gly Asp Ala Ala Gly Gly Ala Gly Ile Ala Gly
            580                 585                 590
Thr Leu Leu Ser Arg Ala Leu Glu Ile Trp Ala Leu Glu Cys His Glu
        595                 600                 605
Gly Asp Ser Ala Pro Pro Glu Asp Leu Glu Arg Val Thr Thr Ser Arg
    610                 615                 620
```

```
Ser Ser Thr Arg Ser Arg Asp Lys Gly Lys Gly Lys Ala Ser Arg Arg
625                 630                 635                 640
Arg Gly Met Thr Glu Glu Glu Trp Thr Asp Glu Val Pro Thr Thr Gly
                645                 650                 655
Pro Ala Thr Glu Thr Leu Glu Gln Lys Val Glu Met Glu Leu Asp Asp
            660                 665                 670
Glu Ala Asp Gly Leu Leu Arg His Ala Met Ser Arg Val Arg Gly Gly
        675                 680                 685
Arg Gly Arg Arg Arg Leu Asp Phe Ser Pro Asp Ala Glu Ala Thr Glu
    690                 695                 700
Thr Pro Gly Pro Ala Gly Ala Arg Ser Arg Gly Ser Arg Ala Arg Ser
705                 710                 715                 720

<210> 38364
<211> 212
<212> PRT
<213> A.fumigatus

<400> 38364
Ile Glu Lys Glu Val Ala Asp Glu Phe Pro Glu Asn Pro Ile Leu Ser
1               5                   10                  15
Gly Val Val Tyr Leu Pro Thr Thr Gln Thr Ser Pro Gly Val Ile Asp
            20                  25                  30
Tyr Pro Glu Met Leu Asn Leu Ile Glu Leu Gly Thr Tyr Pro Ala Asn
        35                  40                  45
Ala Pro Pro Thr His Lys Ala Ala Ala Ser Lys Leu Val Asp Leu Met
    50                  55                  60
Asn Gln Gly Gly Gly Glu Ala Lys Leu His Asp Asp Ile Gln Ile Ala
65                  70                  75                  80
Arg Trp Thr Lys Leu Leu Ile Asn Ala Ser Trp Asn Pro Ile Cys Ala
                85                  90                  95
Leu Ser Met Cys Ser Asp Gly Asp Phe Leu Leu Ser Ser Glu Pro Phe
            100                 105                 110
Ala Leu Glu Leu Val Trp Gly Ile Met Met Glu Ile Val Ala Leu Ala
        115                 120                 125
Lys Lys Leu Gly Ile Pro Gln Val Asp Glu Glu Ala Ala Arg Val Arg
    130                 135                 140
Leu Gln Ile Ala Thr Arg Arg Ala Lys Glu Gly Thr Gly Arg Asp Pro
145                 150                 155                 160
Ser Met Leu Gln Asp Val Lys Gln Gly Arg Leu Phe Glu Val Glu Ala
                165                 170                 175
Ile Val Gly Asn Thr Val Arg Leu Ala Arg Glu His Gly Val Ser Met
            180                 185                 190
Pro Arg Leu Glu Thr Val Tyr Ala Leu Ala Lys Gly Arg Tyr Glu Ala
        195                 200                 205
Leu Ser Arg Lys
    210

<210> 38365
<211> 188
<212> PRT
<213> A.fumigatus

<400> 38365
Gly Thr Ile Leu Thr Glu Pro Pro Arg Ile Thr Met Ser Thr Pro Pro
1               5                   10                  15
```

```
Ile Thr Asp Glu Ile Ser Ile Arg Leu Ala His Gln Asp Asp Ile Pro
            20                  25                  30
Gln Leu Asn Ile Ile Glu Thr Ser Ala Ala Gln Leu Phe Arg Arg Val
        35                  40                  45
His Leu Ala Trp Ile Ala Asp Ser Pro Pro Leu Asp Pro Ala Thr Leu
    50                  55                  60
Arg Ser Met Ile Ala Gln Lys Asn Val Trp Ala Ala Val Thr Ser Asn
65                  70                  75                  80
Asn Thr Ala Val Gly Phe Ile Ala Val Gln Asp Leu Asp Gly Met Leu
                85                  90                  95
Tyr Ile Ala Glu Met Asp Val His Ala Asp Trp Gln Arg Arg Gly Ile
            100                 105                 110
Ala Arg Met Met Leu Glu Glu Val Glu Gly Gln Ala Arg Asp Arg Gly
        115                 120                 125
Tyr Glu Tyr Val Ser Leu Thr Thr Tyr Arg Asp Leu Glu Phe Asn Gly
    130                 135                 140
Arg Phe Tyr Ala Arg Met Gly Phe Glu Glu Val Asp Val Asp Val Ala
145                 150                 155                 160
Gly Glu Gly His Ala Arg Glu Leu Glu Glu Gln Ala Arg Gly Gly His
                165                 170                 175
Ala Arg Asp Arg Arg Cys Val Met Arg Lys Arg Val
            180                 185
```

<210> 38366
<211> 62
<212> PRT
<213> A.fumigatus

```
<400> 38366
Thr Gln Met Gln Leu Thr Tyr Pro Ser Arg Ile Phe Ser Pro Gly Arg
1               5                   10                  15
Phe Ser Arg Asp Arg Pro Arg Phe Thr Asp Asn Leu Asp Val Ile Lys
            20                  25                  30
Phe Leu Cys Lys Asp Leu Trp Thr Ile Leu Phe Lys Lys Gln Val Asp
        35                  40                  45
Asn Leu Lys Thr Asn His Arg Val Ser Thr Arg Lys Arg Val
    50                  55                  60
```

<210> 38367
<211> 130
<212> PRT
<213> A.fumigatus

```
<400> 38367
Val Arg Glu Gln Thr Arg Asp Asn Val Glu Leu Lys Val Val Leu Thr
1               5                   10                  15
Pro Thr Val Ala Ser Arg Leu Gln Ala Asp Pro Asn Leu Arg Val Met
            20                  25                  30
Val Tyr Cys Ala Ala Asp Ser Gly Leu Asn Gln Tyr Thr Lys Ser Asp
        35                  40                  45
Ile Ala Phe Pro His Gln Val Glu Leu Lys Ala Asn Leu Asp Glu Val
    50                  55                  60
Lys Ala Asn Leu Lys Gly Leu Lys Asn Lys Pro Gly Thr Thr Arg Pro
65                  70                  75                  80
Ala Asp Val Thr Asn Tyr Ile Arg Lys Lys Pro Gly Tyr Pro Asn His
                85                  90                  95
```

```
Ile Val Met Thr Tyr Ala Leu Thr Gln Lys Ala Ser Arg Pro Phe Gln
            100                 105                 110
Thr His Leu Cys Ser Ala His Ser Ile Met Ser Met Pro Ile Ile Tyr
        115                 120                 125
Ser Ser
    130
```

<210> 38368
<211> 78
<212> PRT
<213> A.fumigatus

<400> 38368

```
Phe Ala Val Lys Asn Arg Ala Glu Asp Ser Asp Ile Val Ala Thr Ser
1               5                   10                  15
Thr Val Met Ser Leu Lys Cys Pro Leu Ser Thr Leu Arg Ile Glu Val
            20                  25                  30
Pro Cys Arg Thr Val Val Cys Thr His Asn Gln Cys Phe Asp Ala Ser
        35                  40                  45
Ser Phe Leu Gln Leu Gln Glu Gln Ala Pro Thr Trp Ser Cys Pro Val
    50                  55                  60
Cys Ser Lys Ala Thr Ser Tyr Glu Ser Leu Gln Ile Asp Gln
65                  70                  75
```

<210> 38369
<211> 250
<212> PRT
<213> A.fumigatus

<400> 38369

```
Leu Ser Glu Arg Glu Ala Glu Arg Asp Leu Glu Gln Gln Glu Ile Asp
1               5                   10                  15
Asn Ala Val Pro Leu Thr Glu Glu Glu Gln Ala Glu Lys Ala Arg Met
            20                  25                  30
Ser Glu Glu Gly Phe Ala Thr Trp Asn Arg Arg Asp Phe Gln Gln Phe
        35                  40                  45
Ile Asn Gly Ser Ala Lys Phe Gly Arg Thr Asp Tyr Glu Gly Ile Ala
    50                  55                  60
Thr Glu Val Asp Ser Lys Asp Ala Ala Glu Val Glu Glu Tyr Ala Lys
65                  70                  75                  80
Val Phe Trp Lys Arg Tyr Thr Glu Ile Gln Asp Tyr Pro Lys Tyr Ile
                85                  90                  95
Arg Ile Ile Glu Gln Gly Glu Glu Lys Leu Arg Lys Met Ser His Gln
            100                 105                 110
Arg Lys Met Leu Arg Lys Lys Met Glu Met Tyr Arg Val Pro Leu Gln
        115                 120                 125
Gln Leu Lys Ile Asn Tyr Thr Val Ser Thr Thr Asn Lys Lys Val Tyr
    130                 135                 140
Thr Glu Glu Glu Asp Arg Phe Leu Leu Val Met Leu Asp Lys Tyr Gly
145                 150                 155                 160
Val Asp Gly Glu Gly Leu Tyr Glu Lys Ile Arg Asp Glu Ile Arg Glu
                165                 170                 175
Ser Pro Leu Phe Arg Phe Asp Trp Phe Phe Leu Ser Arg Thr Pro Val
            180                 185                 190
Glu Ile Gly Arg Arg Cys Thr Thr Leu Leu Asn Thr Val Ala Lys Glu
        195                 200                 205
```

```
Phe Glu Val Gly Ala Asn Gly Glu Ala Gly Lys Gly Arg Gly Arg Asp
    210                 215                 220
Arg Glu Glu Glu Asp Glu Glu Asn Glu Glu Val Gly Ala Pro Ala Lys
225                 230                 235                 240
Lys Lys Ser Lys Asn Gly Ala Val Val Ser
                245                 250
```

<210> 38370
<211> 760
<212> PRT
<213> A.fumigatus

<400> 38370

```
Glu Asp Asp Ser Ile Arg Arg Phe Arg Tyr Leu Leu Gly Leu Thr Asp
1               5                   10                  15
Leu Phe Arg His Phe Ile Glu Thr Asn Pro Asn Pro Arg Ile Lys Glu
            20                  25                  30
Ile Met Ala Glu Ile Asp Arg Gln Asn Ala Glu Glu Asp Ala Lys Ala
        35                  40                  45
Lys Lys Lys Gly Ser Ser Arg Thr Gly Gly Ala Gly Asn Asp Arg Arg
    50                  55                  60
Arg Arg Thr Glu Gln Glu Glu Asp Ala Glu Leu Leu Lys Asp Glu Lys
65                  70                  75                  80
Thr Gly Ala Gly Thr Ala Thr Val Phe Arg Glu Ser Pro Pro Phe Ile
                85                  90                  95
Gln Gly Glu Met Arg Asp Tyr Gln Ile Ala Gly Leu Asn Trp Leu Val
            100                 105                 110
Ser Leu His Glu Asn Gly Ile Ser Gly Ile Leu Ala Asp Glu Met Gly
        115                 120                 125
Leu Gly Lys Thr Leu Gln Thr Ile Ser Phe Leu Gly Tyr Leu Arg His
    130                 135                 140
Val Cys Gly Ile Thr Gly Pro His Leu Val Ala Val Pro Lys Ser Thr
145                 150                 155                 160
Leu Asp Asn Trp Lys Arg Glu Phe His Lys Trp Thr Pro Asp Val Asn
                165                 170                 175
Val Leu Val Leu Gln Gly Asp Lys Glu Glu Arg His Lys Leu Ile Asn
            180                 185                 190
Glu Arg Leu Leu Asp Glu Asp Phe Asp Val Cys Val Thr Ser Tyr Glu
        195                 200                 205
Met Val Leu Arg Glu Lys Ala His Leu Lys Lys Phe Ala Trp Glu Tyr
    210                 215                 220
Ile Ile Ile Asp Glu Ala His Arg Ile Lys Asn Glu Glu Ser Ser Leu
225                 230                 235                 240
Ala Gln Ile Ile Arg Val Phe Asn Ser Arg Asn Arg Leu Leu Ile Thr
                245                 250                 255
Gly Thr Pro Leu Gln Asn Asn Leu His Glu Leu Trp Ala Leu Leu Asn
            260                 265                 270
Phe Leu Leu Pro Asp Val Phe Gly Asp Ser Glu Ala Phe Asp Gln Trp
        275                 280                 285
Phe Ser Ser Gln Asp Ala Asp Gln Asp Thr Val Val Gln Gln Leu His
    290                 295                 300
Arg Val Leu Arg Pro Phe Leu Leu Arg Arg Val Lys Ser Asp Val Glu
305                 310                 315                 320
Lys Ser Leu Leu Pro Lys Lys Glu Val Asn Leu Tyr Val Pro Met Ser
                325                 330                 335
Glu Met Gln Val Lys Trp Tyr Gln Lys Ile Leu Glu Lys Asp Ile Asp
```

```
            340                 345                 350
Ala Val Asn Gly Ala Ala Gly Lys Arg Glu Ser Lys Thr Arg Leu Leu
        355                 360                 365
Asn Ile Val Met Gln Leu Arg Lys Cys Cys Asn His Pro Tyr Leu Phe
    370                 375                 380
Glu Gly Ala Glu Pro Gly Pro Pro Tyr Thr Thr Asp Glu His Leu Val
385                 390                 395                 400
Tyr Asn Ser Gly Lys Met Val Ile Leu Asp Lys Leu Leu Ala Arg Met
                405                 410                 415
Gln Lys Gln Gly Ser Arg Val Leu Ile Phe Ser Gln Met Ser Arg Val
            420                 425                 430
Leu Asp Ile Leu Glu Asp Tyr Cys Val Phe Arg Asp Tyr Lys Tyr Cys
        435                 440                 445
Arg Ile Asp Gly Thr Thr Ala His Glu Asp Arg Ile Ala Ala Ile Asp
    450                 455                 460
Glu Tyr Asn Lys Pro Gly Ser Asp Lys Phe Ile Phe Leu Leu Thr Thr
465                 470                 475                 480
Arg Ala Gly Gly Leu Gly Ile Asn Leu Thr Thr Ala Asp Ile Val Val
                485                 490                 495
Leu Tyr Asp Ser Asp Trp Asn Pro Gln Ala Asp Leu Gln Ala Met Asp
            500                 505                 510
Arg Ala His Arg Ile Gly Gln Thr Lys Gln Val Val Val Phe Arg Phe
        515                 520                 525
Val Thr Glu Asn Ala Ile Glu Glu Lys Val Leu Glu Arg Ala Ala Gln
    530                 535                 540
Lys Leu Arg Leu Asp Gln Leu Val Ile Gln Gln Gly Arg Ala Gln Gln
545                 550                 555                 560
Gln Val Lys Asn Ala Ala Ser Lys Asp Glu Leu Leu Gly Met Ile Gln
                565                 570                 575
His Gly Ala Ala Asn Val Phe Asn Thr Lys Gly Ala Thr Gly Ala Leu
            580                 585                 590
Ser Asn Asp Lys Gln Leu Ser Asp Asp Asp Ile Asp Ala Ile Leu Arg
        595                 600                 605
Lys Gly Glu Glu Arg Thr Ala Glu Leu Asn Lys Lys Tyr Glu Lys Leu
    610                 615                 620
Gly Ile Asp Asp Leu Gln Lys Phe Ser Ser Glu Ser Ala Tyr Glu Trp
625                 630                 635                 640
Asn Gly Gln Asp Phe Thr Glu Lys Lys Lys Asp Ile Gly Ile Asn Trp
                645                 650                 655
Ile Asn Pro Ala Lys Arg Glu Arg Lys Glu Gln Phe Tyr Ser Ile Asp
            660                 665                 670
Lys Tyr Tyr Arg Gln Ala Leu Ala Thr Gly Gly Arg Thr Ala Glu Thr
        675                 680                 685
Lys Pro Lys Val His Ala Arg Arg Ser Arg Lys Tyr Pro Thr His Asp
    690                 695                 700
Gly Asn Ser Ser His Arg Gly Phe Lys Asn Phe Lys Arg Arg Lys Gln
705                 710                 715                 720
Leu Thr Ser Ile Lys Lys Leu Gly Thr Lys His Ser Phe Leu Arg Ala
                725                 730                 735
Leu Lys Asn Ser Ser Val Ser Glu Lys Arg Asn Val Thr Trp Ser Ser
            740                 745                 750
Lys Lys Leu Thr Met Leu Cys Pro
        755                 760
```

<210> 38371
<211> 207

<212> PRT
<213> A.fumigatus

<400> 38371
Arg Leu Thr Val Val Leu Val Asp Gly Val Lys Leu Leu Leu Ser Leu
1 5 10 15
Pro Leu Cys Trp Val Asp Pro Val Asn Thr Asn Ile Phe Leu Leu Phe
20 25 30
Cys Glu Ile Leu Ala Val Pro Phe Ile Cys Ala Leu Arg Ala Glu Phe
35 40 45
Leu Gln Ile Ile Asp Thr Gln Leu Leu Val Leu Leu Val Glu Phe Ser
50 55 60
Ser Pro Leu Phe Thr Leu Ala Gln Asp Ser Ile Asp Ile Ile Ile Arg
65 70 75 80
Gln Leu Leu Val Ile Arg Gln Cys Thr Ser Cys Thr Phe Cys Val Glu
85 90 95
Asn Val Cys Gly Ser Val Leu Asp His Ala Lys Gln Leu Ile Leu Gly
100 105 110
Ser Cys Val Leu Asp Leu Leu Leu Ser Thr Ala Leu Leu Asn Asp Lys
115 120 125
Leu Ile Gln Ala Gln Phe Leu Arg Gly Ser Leu Gln Asp Leu Phe Leu
130 135 140
Asn Ser Ile Phe Cys Asn Lys Ser Lys His His Asp Leu Leu Ser Leu
145 150 155 160
Thr Asp Thr Met Gly Thr Val His Arg Leu Gln Ile Ser Leu Arg Ile
165 170 175
Pro Ile Thr Ile Val Lys Asn Asp Asn Ile Cys Ser Cys Gln Val Asp
180 185 190
Thr Gln Pro Ser Cys Ser Cys Cys Lys Gln Glu Asp Glu Phe Ile
195 200 205

<210> 38372
<211> 71
<212> PRT
<213> A.fumigatus

<400> 38372
Arg Arg Ile Trp Gln Leu Thr Ser Thr Leu Ala Phe Ile Ser Ile Ile
1 5 10 15
Ser Ala Val Ile Ile Cys Met Ile Gly Val Ile Ile Lys His Pro Gly
20 25 30
Gly Lys Val Met Ala Thr Val Asp Thr Asp Leu Val His Gly Phe Ser
35 40 45
Ala Val Thr Asn Ile Val Phe Ala Phe Cys Glu Phe Leu Ser Phe Val
50 55 60
Glu Leu Glu Leu Gln Pro Asp
65 70

<210> 38373
<211> 98
<212> PRT
<213> A.fumigatus

<400> 38373
Ile Ile Gly Ala Leu Gln His Phe Tyr Ser Phe Val Leu Tyr Thr Lys
1 5 10 15

```
Leu Gly Ile Leu Leu Phe Gly Phe Thr Lys Lys Leu Leu Asp Gln Gly
            20                  25                  30
Lys Thr Pro Ile Met Ile Gln Ser Val Asn Asp Pro Pro Leu Ser Asn
        35                  40                  45
Pro Glu Asn Leu Gln Glu Lys Gly Ile Ala Ser Arg Asp Ala Ser Leu
    50                  55                  60
Ala Glu Asp Glu Lys Lys Tyr Ala Ala Thr Leu Ala Tyr Arg Gln Asp
65                  70                  75                  80
Ala Phe Gly Asp Glu Ser Asn Ala Glu Val Lys Tyr Lys Val Met Lys
                85                  90                  95
Trp Trp
```

<210> 38374
<211> 96
<212> PRT
<213> A.fumigatus

<400> 38374

```
Asn Ser Asn Ser Asn Pro Thr Asn Trp His Ala Ala Gly His Ala Ala
1               5                   10                  15
Tyr Phe Gly Leu Met Ala Glu Leu Lys Asp Pro Arg Asp Phe Pro Lys
            20                  25                  30
Ala Leu Met Leu Leu Gln Ser Val Asp Val Cys Leu Tyr Ile Ile Ala
        35                  40                  45
Ala Ile Val Ile Tyr Val Tyr Gly Gly Asp Glu Ile Ala Ser Pro Ala
    50                  55                  60
Leu Gly Ser Ala Asp Pro Leu Ile Ser Lys Val Ala Tyr Gly Ile Ala
65                  70                  75                  80
Leu Pro Thr Val Gly Pro His Arg His Leu Lys Thr Cys Leu Gln Tyr
                85                  90                  95
```

<210> 38375
<211> 80
<212> PRT
<213> A.fumigatus

<400> 38375

```
Leu Val His Leu Gln Thr Ala Leu Phe Ala Ser Trp Phe Thr Tyr Gly
1               5                   10                  15
Leu Ser Gly Ile Phe Trp Leu Tyr Leu Asn Arg Gly Gln Tyr Leu Ser
            20                  25                  30
Ser Pro Arg Lys Met Phe Leu Thr Ile Val Asn Leu Phe Cys Leu Val
        35                  40                  45
Phe Gly Ala Val Leu Cys Gly Leu Gly Leu Tyr Val Ser Gly Lys Ala
    50                  55                  60
Ile His Asp Asn Pro Ser Ser Met Ser Phe Ser Cys Ala Asn Asn Ala
65                  70                  75                  80
```

<210> 38376
<211> 174
<212> PRT
<213> A.fumigatus

<400> 38376

```
Ile Phe Phe Cys Phe Ser Ser Val Ile Leu Leu Val Ser Leu Gly Ile
```

```
1               5                   10                  15
Ile Ala Thr Tyr Thr Gly Tyr Val Leu Gly Gln Phe Lys Leu Gln Tyr
            20                  25                  30
Pro Trp Val His Asn Met Gly Leu Ala Gly Glu Val Val Phe Gly Ser
        35                  40                  45
Trp Gly Arg Glu Ile Leu Gly Ala Ala Gln Met Leu Leu Leu Val Phe
    50                  55                  60
Ile Met Ala Ser His Ile Leu Thr Phe Val Ile Ala Met Asn Thr Leu
65                  70                  75                  80
Thr Asp His Gly Thr Cys Ser Ile Val Phe Gly Val Ala Gly Leu Ile
                85                  90                  95
Val Ser Phe Ile Leu Ser Leu Pro Arg Thr Leu Ala Lys Met Ser Trp
            100                 105                 110
Leu Ser Leu Val Cys Lys Met Thr Cys Cys Leu Thr Pro Asp Leu Ala
        115                 120                 125
Ala Asn Phe His Pro Ser Phe Tyr Gln His Tyr Leu Arg Gly Asp Tyr
    130                 135                 140
Leu Tyr Asp Arg Arg Asn Tyr Lys Ala Ser Gly Trp Lys Gly His Gly
145                 150                 155                 160
Asn Cys Arg His Gly Leu Gly Pro Trp Val Leu Cys Arg His
                165                 170
```

<210> 38377
<211> 337
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (48),(53)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38377

```
Asp Leu Thr Lys Pro Leu Thr Ile His Ser Ser Thr Pro Asp Ser Lys
1               5                   10                  15
Ser Pro Val Gly Thr Leu Leu Leu Lys Leu Asn Asp Cys Glu Lys Ile
            20                  25                  30
Ser Leu Pro Lys Gln Glu Pro Glu Pro Arg Ser Asp Ala Ala Pro Xaa
        35                  40                  45
Asp Val Lys Glu Xaa Asp Pro Leu Asn Asp Gly Tyr Tyr Phe Arg Ala
    50                  55                  60
His Arg Arg Met Glu Arg Gln Glu Asn Lys Leu Arg Asn Ile Glu Arg
65                  70                  75                  80
Glu Arg Ala Gln His Glu Lys Met Gln Leu Glu Arg Leu Leu Asp Glu
                85                  90                  95
Leu Lys Gly His Asp Trp Leu Arg Val Met Gly Ile Thr Gly Val His
            100                 105                 110
Glu His Glu Lys Lys Leu Tyr Glu Pro Lys Arg Asp Tyr Phe Met Lys
        115                 120                 125
Glu Ile Ala Ser Leu Ile Glu Lys Phe Gln Ile Trp Lys Glu Glu Glu
    130                 135                 140
Lys Arg Arg Lys Leu Asp Lys Asp Lys Pro Ser Arg Arg Ala Glu Ile
145                 150                 155                 160
Ser Pro Ser Thr Ala Pro Thr Asn Arg Asp His Thr Thr Ser Gln Lys
                165                 170                 175
Arg Lys Arg Ser Asp Arg Thr Pro Asp Thr Thr Ala Glu Arg Pro Thr
```

```
            180                 185                 190
His Asn Gly Ala Ala Thr Ala Asp Gly Glu Ser Asp Gly Glu Pro Pro
        195                 200                 205
Asp Pro Ser Asp Val Asp Ala Trp Ala Ala His Gln Leu Gln Gln Glu
    210                 215                 220
Ala Arg Ser Ala Thr Ala Gly Lys Arg Pro Lys Ser Ser Thr Glu Ala
225                 230                 235                 240
Pro Arg Arg Arg Lys Ser Ser Ala Asn Lys Ser Ser Thr Ala Pro Pro
                245                 250                 255
Ala Val Ala Lys Pro Ala Thr Pro Pro Pro Pro Asp Lys Pro Phe Thr
            260                 265                 270
Ser Phe Tyr Ala Lys Pro His Leu Arg Glu Ala Ala Leu Ser Pro His
        275                 280                 285
Arg Lys Gly Arg Val Arg Leu Ala Phe Gly His Pro Ile Pro Lys Met
    290                 295                 300
Glu Val Arg Glu Phe Gln Pro Pro Ala Asp Ile Leu Thr Pro Glu Ala
305                 310                 315                 320
Ile Asp Ser Cys Arg Arg Lys Arg Arg Arg Met Arg Arg Glu Ser Arg
                325                 330                 335
Gly
```

<210> 38378
<211> 182
<212> PRT
<213> A.fumigatus

<400> 38378

```
Ser Arg Asn Ser Lys Ser Gly Lys Lys Lys Arg Asn Ala Gly Ser Ser
1               5                   10                  15
Ile Arg Thr Ser Pro Arg Ala Ala Pro Arg Tyr His Arg Pro Pro Leu
            20                  25                  30
Pro Arg Thr Glu Thr Thr Leu Pro Pro Arg Ser Gly Asn Val Val Ile
        35                  40                  45
Ala Pro Gln Ile Leu Pro Pro Asn Ala Gln Pro Thr Thr Ala Pro Pro
    50                  55                  60
Pro Pro Thr Ala Lys Ala Thr Ala Asn Pro Gln Thr Gln Ala Thr Trp
65                  70                  75                  80
Thr Pro Gly Pro Arg Ile Asn Ser Ser Arg Lys Pro Ala Pro Gln Gln
                85                  90                  95
Pro Ala Asn Gly Pro Ser His Arg Pro Arg Pro His Asp Val Ala Asn
            100                 105                 110
Pro Pro Pro Thr Asn Pro Pro Pro His Arg Pro Leu Ser Gln Asn Gln
        115                 120                 125
Gln Pro Leu Pro Leu Pro Ile Asn Pro Ser Pro His Ser Thr Gln Ser
    130                 135                 140
Leu Ile Cys Ala Arg Leu Arg Ser Arg His Thr Ala Arg Ala Ala Ser
145                 150                 155                 160
Ala Trp Arg Ser Ala Thr Pro Ser Pro Arg Trp Arg Cys Ala Asn Ser
                165                 170                 175
Ser Arg Leu Arg Ile Ser
            180
```

<210> 38379
<211> 1675
<212> PRT

<213> A.fumigatus

<220>
<221> UNSURE
<222> (86)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38379

```
Trp Phe His Arg Pro Thr Pro Arg Ala Asn Asn Ser Ile Thr Leu Ala
1               5                  10                  15
Ala Asn Gly Ser Ile Glu Ser His Glu Thr Ala Ile Pro Leu Leu Gly
            20                  25                  30
Pro Ser Asp Ala Asn Ser Arg Gly Ile Lys Phe Gly Ser Pro Thr Leu
        35                  40                  45
Asn Leu Ser Leu Met Glu Ile Leu Ser Thr Leu Ser Ser Gly Gly Thr
    50                  55                  60
Leu Cys Ser Ala Ser Arg Arg Leu Thr Leu Thr Asp Leu Gly Gly Thr
65                  70                  75                  80
Ile Asn Glu Ala Arg Xaa Pro Val Met Met Ala Thr Arg Ser Leu Ala
                85                  90                  95
Ala Leu Ile Arg Pro Ala Gln Leu Asn Thr Leu Gln Tyr Leu Trp Thr
            100                 105                 110
Met Gly Glu Lys Leu Asn Arg Thr Val Ile Glu Asn Phe Thr Gln Lys
        115                 120                 125
Ala His Ser Asn Asp Leu Asn Gly Asp Ser Val Pro Ala Leu Arg Leu
    130                 135                 140
Leu Val Asn Ala Tyr Gly Pro Thr Glu Ala Ala Ile Asn Cys Thr Phe
145                 150                 155                 160
Phe Ala Pro Val Glu Tyr His Thr Arg Gly Ser Ile Ile Gly Glu Pro
                165                 170                 175
Leu Pro Thr Cys Ser Ile Phe Val Leu Asp Pro Ala Ser His Thr Pro
            180                 185                 190
Lys Pro Ile Pro Ala Gly Leu Ala Gly Glu Leu Ala Ile Gly Gly Pro
        195                 200                 205
Gln Val Ser Gln Gly Tyr Leu Asn Arg Pro Glu Glu Thr Ala Asn Ser
    210                 215                 220
Phe Val His Ser Pro Glu Tyr Gly Tyr Leu Tyr Arg Thr Gly Asp Leu
225                 230                 235                 240
Ala Arg Ile Val Trp Asp Glu Lys Gly Ala Gln Val Ile Glu Phe Leu
                245                 250                 255
Gly Arg Ile Thr Ser Asp Gln Val Lys Ile Ser Gly Arg Arg Val Glu
            260                 265                 270
Leu Gly Glu Ile Glu Ser Val Leu Ala Thr Leu Thr Gly Val Arg Glu
        275                 280                 285
Val Val Ala Val Val Pro Lys Arg Asp Ala Ser Val Gln Gly Ser Glu
    290                 295                 300
Gln Ile Val Ala Cys Ile Val Ala Asp Ser Leu Ser Glu Asp Thr Ala
305                 310                 315                 320
Pro Glu Phe Val Arg Leu Ala Asp Glu Cys Ala His Arg His Leu Ala
                325                 330                 335
Ala Tyr Met Cys Pro Ser Ser Tyr Val Phe Phe Asp Ser Ile Pro Arg
            340                 345                 350
Thr Ser Ser Gly Lys Val Asp Arg Asn Ser Ile Ser Ser Met Leu Gln
        355                 360                 365
Gln Gly Lys Asp Ser Gly Met Lys Phe Tyr Met Pro Ser Asn Asp Val
    370                 375                 380
```

```
Pro Glu Ala Arg Gly Met Ala Arg Ala Glu Trp Asp Pro Leu Glu Asp
385                 390                 395                 400
Glu Lys Ala Leu Glu Leu Arg Thr Leu Val Leu Asp Leu Val Ala Gln
                405                 410                 415
Thr Thr Gly Gln Asp Ile Ser Val Ile Lys Pro Asn Thr Ser Leu Tyr
            420                 425                 430
Thr Leu Gly Leu Asp Ser Leu Gly Ser Met Gln Phe Leu Gln Lys Leu
        435                 440                 445
Arg Asp Lys Ser Leu His Asn Leu Ser Val Gly Asp Val Leu Gln Ser
    450                 455                 460
Asn Thr Val Asn Gly Leu Leu Thr Leu Ile Leu Asn Gly Lys Thr Asn
465                 470                 475                 480
Leu Arg Gly Leu Thr Asn Gly Gln Leu Ala Asp Asp Ser Arg Met Ser
                485                 490                 495
Leu Ala Glu His Leu Gln Ala Phe Asn Asp Thr Asn Leu Ser Arg Cys
            500                 505                 510
Ala Lys Arg Leu Ser Ile Ser Pro Glu Arg Ile Gln Thr Val Leu Pro
        515                 520                 525
Thr Thr Glu Thr Gln Ser Gly Met Leu Thr Ser Phe Leu Arg Thr Ser
    530                 535                 540
Thr Asp Ser Ser Phe Ala Thr Arg Ser Tyr Ile Tyr His Ser Val Ile
545                 550                 555                 560
Ser Leu Glu Pro His Val Asp Ile Glu Arg Leu Lys Lys Ala Trp Glu
                565                 570                 575
Ser Val Ile Ala Ser Tyr Asp Ser Phe Arg Thr Arg Phe Cys Trp Ile
            580                 585                 590
Asp Asp Asp Met Ala Pro Phe Ala Gln Cys Ile Leu Lys Glu Asp Ala
        595                 600                 605
Ala Ser Ala Pro Met Trp Ala Ile Asn His Thr Phe Gly Asp Ser Met
    610                 615                 620
His Glu Asp Ser Leu Thr Arg Ala Leu Arg Glu Ala Glu Asn Thr Ile
625                 630                 635                 640
Ser Leu Asp Ser Pro Trp Lys Leu Ser Leu Leu Glu Ser Ser Gly Asp
                645                 650                 655
Lys Val Ile Ile Leu Ser Met Phe His Gly Ile Phe Asp Gly Gly Ser
            660                 665                 670
Leu Gln Leu Leu Leu Glu Asp Val Ser Ser Val Tyr Asp Gly Gln Leu
        675                 680                 685
Pro Ala Pro Arg Thr Ser Leu Glu His Val Val Val Asn His Phe Gln
    690                 695                 700
Ala Asn Gln Thr Ala Thr Ser Asn Phe Trp Lys Glu Tyr Leu Asn Lys
705                 710                 715                 720
Tyr Ser Pro Ile Ala Phe Pro Ser Leu Thr Ala Tyr Arg Pro Pro Ala
                725                 730                 735
Val Asn Ala Thr Gly Cys Val Glu Ile Thr Pro Arg Thr Thr His Asp
            740                 745                 750
Ile Leu Lys Gln Gln Ser Arg Thr Ile Gly Ser Thr Pro Leu Ser Val
        755                 760                 765
Leu Gln Ala Ala Trp Ala Ser Leu Leu Leu Ala Tyr Thr Gly Thr Gln
    770                 775                 780
Asp His Asp Val Val Met Gly Ser Val Ile Ser Gly Arg Phe Asp Pro
785                 790                 795                 800
Asp Ser Glu Ile Cys Ile Gly Pro Thr Phe Thr Thr Ile Pro Thr Arg
                805                 810                 815
Leu Ala Leu Gly Gln Val Pro Lys Ala Gly Gly Phe Trp Thr Asn Lys
            820                 825                 830
```

```
Ser Val Val Asn His Leu Ala Ser Leu Asn Ala Lys Ala Leu Ser His
        835                 840                 845
Leu Gln Pro Arg Leu Gly Ser Leu Val Thr Ala Asp Ser Lys Leu Pro
    850                 855                 860
Tyr Asp Thr Val Leu Ala Tyr Gln Asp Phe Ser Ala Gly Ser Ser Thr
865                 870                 875                 880
Ser Ser Ile Trp Lys Ser Ile Asp His Pro Pro Met Ala Asn Asp Tyr
                885                 890                 895
Ala Val Met Ile Glu Val Trp Pro Ala Arg Asp Ser Ser Leu Thr Leu
            900                 905                 910
Arg Ala Ser Phe Ala Leu Ser Gln Met Asp Arg Asp Gly Ala Lys Val
        915                 920                 925
Met Leu His Gln Leu Asp Asp Ile Ile Ala Phe Ile Leu Gln Asn Pro
    930                 935                 940
Asp Gly Asp Phe Glu Asn Ala Leu Leu Tyr Thr Arg Pro Asp Leu Lys
945                 950                 955                 960
Ala Ser Tyr Asn Pro Met Pro Lys Glu Ala Asp Glu Val Ser Asp Gly
                965                 970                 975
Asp Leu Ile His Thr Lys Phe Glu Asn His Ala Asn Ser His Pro Asp
            980                 985                 990
Asp Met Ala Leu Leu Phe Lys Tyr Asp Leu Glu Asp Asp Gly Asn Leu
        995                 1000                1005
Gln Asn Ile Ser Trp Thr Tyr Gly Glu Leu Asn Ala Arg Ala Asp Asn
    1010                1015                1020
Leu Ala Ala Tyr Leu Cys Glu Thr Tyr Asp Lys Leu Thr Asn Lys Val
1025                1030                1035                1040
Val Pro Ile Cys Ile Glu Lys Ser Pro Ala Met Tyr Ile Ala Ile Leu
                1045                1050                1055
Gly Ile Leu Lys Ala Gly Gly Ala Trp Cys Pro Ile Asp Thr Phe Ser
            1060                1065                1070
Pro Ala Gln Arg Arg His Asp Leu Ile Lys Arg Thr Gly Ala Gly Val
        1075                1080                1085
Leu Leu Val Ser Ser Glu Asp Gly Glu Gln Pro Lys Asp Ala Ile Pro
    1090                1095                1100
Ile Gly Ile Asp Val Val Asp Val Lys Lys Tyr Ala Asp Pro Leu Val
1105                1110                1115                1120
Ser Trp Pro Ser Val Gly Arg Trp Ser Ser Lys Lys Leu Ser Ser Pro
                1125                1130                1135
Ala Gly Leu Ala Tyr Leu Ile Trp Thr Ser Gly Thr Thr Gly Ala Pro
            1140                1145                1150
Lys Gly Val Pro Ile Thr His Ser Ala Ala Val Ser Cys Phe Arg Ser
        1155                1160                1165
Leu Lys Lys Asp Ile Pro Ser Asp Val Ser Gly Gly Val Val Arg Cys
    1170                1175                1180
Leu Gln Phe Ser Gln Tyr Thr Phe Asp Val Ser Ile Gln Asp Leu Phe
1185                1190                1195                1200
Tyr Thr Trp Ser Leu Gly Gly Val Leu Ile Ser Ala Thr Arg Glu Ile
                1205                1210                1215
Met Leu Gly Ser Phe Ala Lys Leu Ala Asn Thr Thr Arg Ala Thr His
            1220                1225                1230
Ala His Leu Thr Pro Ala Phe Ala Ala Gly Val Pro Arg Asn Ser Cys
        1235                1240                1245
Glu Thr Leu Glu Val Ile Thr Met Ile Gly Glu Lys Leu Thr Gln His
    1250                1255                1260
Val Ala Asp Asp Trp Gly Thr Asp Met Arg Ala Tyr Asn Thr Tyr Gly
1265                1270                1275                1280
```

```
Pro Ala Glu Val Thr Ile Val Ser Thr Val Arg Glu Phe Gly Asn Asp
                1285                1290                1295
Cys Leu Asn Ile Lys Ser Ala Asn Val Gly Trp Pro Met Glu Ser Val
            1300                1305                1310
Ser Val Phe Val Thr Arg Asn Lys Gln Ile Val Met Lys Asn Ala Val
        1315                1320                1325
Gly Glu Leu Ala Leu Gly Gly Pro Gln Leu Ser Pro Gly Tyr Leu Asp
    1330                1335                1340
Gln Glu Asp Val Thr Lys Ala Lys Tyr Val Trp Ser Glu Glu Ala Gly
1345                1350                1355                1360
Gln Ile Leu Tyr Tyr Thr Gly Asp Leu Val Arg Met Leu Ala Asp Gly
                1365                1370                1375
Ser Leu Glu Phe Met Asn Arg Val Asp Asp Leu Val Lys Ile Gly Gly
            1380                1385                1390
Ile Arg Ile Glu Leu Ser Glu Ile Ser Phe Ala Leu Gly Gly Cys His
        1395                1400                1405
Pro Leu Val Glu Asn Ile Glu Thr Leu Tyr Ile Asp Arg Pro Asp Arg
    1410                1415                1420
Pro Ser Lys Val Leu Val Ala Phe Leu Ser Ala Ser Asn Ala Thr Gly
1425                1430                1435                1440
Ala Asp Ala Gly Asp Asp Leu Leu Leu Leu Asn Asp Ser Ala Leu Gln
                1445                1450                1455
Ile Ala Leu Ser Thr Arg Glu Lys Ala His Thr Ala Leu Pro Ala Tyr
            1460                1465                1470
Met Val Pro Ser Val Tyr Leu Val Met Lys Arg Ile Pro Arg Thr Gln
        1475                1480                1485
Ser Ala Lys Thr Asp Arg Arg Ala Leu Gln Ala Ala Tyr Ala Ser Val
    1490                1495                1500
Asp Ile Glu Asp Trp Glu Asn Arg Met Asn Pro Glu Asn Asn Ala Thr
1505                1510                1515                1520
Gly His Pro Thr Asp Asp Leu Val Ala Ser Asp Ala Met Glu Lys Ile
                1525                1530                1535
Val His Met Ile Ala Ser Leu Ile Asn Ile Ser Pro Ser Ile Val Ala
            1540                1545                1550
Lys Ala Ser Arg Leu Arg Ser Leu Gly Ile Asp Ser Ile His Ala Ile
        1555                1560                1565
Arg Leu Ala Ser Arg Leu Lys Glu Ala Gly Tyr Arg Leu Ser Phe Ile
    1570                1575                1580
Glu Val Ile Asn Cys Val Thr Val Gln Asp Leu Ala Arg Leu Cys Thr
1585                1590                1595                1600
Ser Ser Ser Glu Val Asp Ala Leu Pro Ala Ala Glu Phe Asp Ile Asn
                1605                1610                1615
Leu Phe Asn Asp Gln Trp His Asp Ile Val Ala Ser Lys Val Asp Gly
            1620                1625                1630
Glu Phe Phe Thr Val Arg Ala Thr Pro Ile Gln Glu Ser Leu Leu Ser
        1635                1640                1645
Glu Thr Met Gly Thr Tyr His Leu Tyr Ser Ser Asn His Phe Val Pro
    1650                1655                1660
Pro Arg Ala Trp Lys Asp Pro Arg Ile Ala Tyr
1665                1670                1675

<210> 38380
<211> 485
<212> PRT
<213> A.fumigatus
```

<400> 38380

```
Ile Ala Phe Phe Gln Pro Ala Leu Arg Ala Asp Ile Asp Ser Leu Ala
1               5                  10                  15
Gly Phe Gly Gly Arg Asn Ser Arg Asn Glu Phe Leu Lys Pro Ile Ser
            20                  25                  30
Arg Ile Ser Thr Gln Gly Ser Ala Gln Phe Arg His Thr Pro Leu Pro
        35                  40                  45
Gly Ile Phe Gly Ser Ile Pro Leu Pro Ala Ala Leu Val Ala Gly Leu
    50                  55                  60
Trp Ala Cys Arg Asn Val Ala Tyr Gln Arg Leu Lys Leu Arg Ala His
65                  70                  75                  80
Val Arg Gly Val Phe Thr Gly Glu Cys Leu Val Gly Leu Leu Asp Val
                85                  90                  95
Ile Ser Ala Leu Leu Ala Leu Ser Thr Val Gly Tyr Phe Ala Phe Val
            100                 105                 110
Ala Lys Pro Trp Trp Leu Thr Asn Phe Leu Gly Phe Ser Phe Cys Tyr
        115                 120                 125
Gly Ala Leu Gln Phe Met Ser Pro Ser Thr Phe Lys Thr Gly Ser Leu
    130                 135                 140
Ile Leu Gly Ser Leu Phe Leu Tyr Asp Ile Tyr Phe Val Phe Tyr Thr
145                 150                 155                 160
Pro Leu Met Val Thr Val Ala Thr Lys Leu Asp Val Pro Ile Lys Leu
                165                 170                 175
Leu Phe Pro Arg Pro Pro Ala Pro Gly Glu Ala Pro Asp Val Val Ser
            180                 185                 190
Leu Ala Met Leu Gly Leu Gly Asp Ile Val Ile Pro Gly Met Met Val
        195                 200                 205
Gly Leu Ala Leu Arg Phe Asp Leu Cys Leu Tyr Tyr Arg Lys Lys Gly
    210                 215                 220
Ile Glu Lys Ala Arg Leu Glu Ser Lys Gly Gln Asp Ile Ile Lys Pro
225                 230                 235                 240
Gln Tyr Gln Cys Ala Thr Gly Gly Trp Gly Glu Arg Phe Trp Ala Trp
                245                 250                 255
Pro Val Ala Pro Arg Gly His Glu Leu Glu Pro Pro Tyr Arg Asp Ala
            260                 265                 270
Lys Ser Phe Pro Lys Pro Tyr Phe Lys Ala Ser Leu Phe Gly Tyr Ile
        275                 280                 285
Val Gly Met Ile Ser Thr Leu Ala Ala Met Gln Tyr Ser Asn His Ala
    290                 295                 300
Gln Pro Ala Leu Leu Tyr Leu Val Pro Gly Val Leu Ser Phe Leu Trp
305                 310                 315                 320
Gly Thr Ala Leu Leu Arg Gly Glu Leu Arg Glu Met Trp Glu Phe Ser
                325                 330                 335
Asp Ala Glu Glu Ser Asp Glu Glu Gly Met Asn Glu Lys Glu Glu Lys
            340                 345                 350
Lys Gly Asp Glu Ala Gln Ala Lys Asn Thr Lys Ser Leu Leu Met Arg
        355                 360                 365
Ile Leu Ser Gly Asp Ile Lys Ala Val Tyr Ser Glu Glu Pro Glu Gly
    370                 375                 380
Ala Thr Glu Lys Lys Glu Glu Arg Lys Ser Glu Ser Met Glu Thr Lys
385                 390                 395                 400
Asp Ser Ala Gln Ala Asp Gly Gly Ser Asp Asp Lys Ser Gln Gly Ala
                405                 410                 415
Asp Glu Gly Lys Glu Leu Asp Leu Val Ser Ile Ser Ile Ser Leu Pro
            420                 425                 430
Arg Lys Gly Lys Thr Arg Ser Gly Lys Thr Gln Thr Asn Arg Val Glu
```

```
        435                 440                 445
Leu Pro Thr Ser Lys Lys Ser Leu Ser Val Pro Ser Ala Ala Asn Arg
    450                 455                 460
Asp Asp Glu Pro Pro Ala Lys Arg Gln Arg Arg Ser Pro Arg Ile Ala
465                 470                 475                 480
Glu Ala Ser Ala Ser
                485
```

<210> 38381
<211> 416
<212> PRT
<213> A.fumigatus

<400> 38381

```
Phe Ser Tyr Thr Arg Met Ala Pro Ala Ala Ala Ser Thr Ala Ala Pro
1               5                  10                  15
Ser Ala Pro Pro Ser Leu Ser Leu Pro Pro Ser Gln Phe Ala Arg Leu
            20                  25                  30
Gln Pro His Ala Tyr Leu Leu Ala His Leu Ser Pro Pro Pro Ser Ser
        35                  40                  45
Asn Gln Pro Ser Ile Arg Ala Asn Gly Arg Ala Thr Ser Gln Phe Arg
    50                  55                  60
Val Thr Ser Ala Asn Thr Gly Ser Leu Thr His Thr Asn Gly Ser Ala
65                  70                  75                  80
Val Val Arg Ile Gly Asp Thr Ala Ala Val Cys Gly Val Arg Ala Glu
                85                  90                  95
Ile Leu His Thr Asp Asp Ile Ala Ser Trp Ser Val Ser Arg Ala Ser
            100                 105                 110
Ala Pro Ala Ser Ile Asn Lys Arg Arg Lys Leu Ile Asp Thr Thr Glu
        115                 120                 125
Lys Pro Thr Val Thr Ala Asn Asp Asp Asn Asp Asp Glu Asp Asp Glu
    130                 135                 140
Ser His Ile Gln Asp Leu Asn Leu Leu Val Pro Asn Leu Ser Leu Ser
145                 150                 155                 160
Thr Gly Cys Ala Pro Gly Phe Ile Pro Gly Ala Pro Pro Ser Ala Leu
                165                 170                 175
Ala Gln Ser Leu Ser His Gln Ile Leu Ser Leu Leu His Ser Thr Arg
            180                 185                 190
Leu Val Arg Ala Glu Asp Leu Arg Ile Trp Tyr Gln Pro Pro Asn Trp
        195                 200                 205
Gly Ala Glu Glu Leu Glu Arg His Asn Glu Asp Glu Gln Met Asp Val
    210                 215                 220
Asp Ala Gln Glu Gly Asp Thr Ser Ala Lys Ser Arg Glu Ile Lys Ala
225                 230                 235                 240
Phe Trp Val Leu Tyr Ile Asp Val Met Ile Ile Ser Leu Ala Gly Asn
                245                 250                 255
Pro Phe Asp Ala Ala Trp Ala Ala Val Leu Ala Ala Leu Arg Asp Thr
            260                 265                 270
Lys Leu Pro Lys Ala Trp Trp Asp Val Asp Asn Glu Met Val Val Cys
        275                 280                 285
Ser Glu Ala Val Ser Glu Ala His Lys Leu Ser Leu Arg Gly Met Pro
    290                 295                 300
Val Ala Ser Ser Phe Cys Val Phe Glu Ala Asp Ala Ala Ser Gly Trp
305                 310                 315                 320
Arg Lys Val Ile Ile Pro Asp Ala Glu Glu Glu Arg Lys Ile Glu Glu
                325                 330                 335
```

```
Ser Asp Arg Lys Gly Ile Gln Arg Arg Trp Ile Leu Ala Asp Pro Asp
            340                 345                 350
Gly Tyr Glu Glu Ser Leu Ser Gln Glu Arg Ile Cys Ile Val Val Asp
        355                 360                 365
Lys Glu Asn Gly Glu Gln Gly Lys Thr Val Ile Val Lys Met Glu Lys
    370                 375                 380
Asn Gly Gly Trp Ala Ala Asp Thr Arg Glu Leu Lys Gln Leu Val Asp
385                 390                 395                 400
Ile Ser Ala Gln Arg Trp Asp Asp Met Lys Arg Ile Leu Asp Ser Cys
                405                 410                 415

<210> 38382
<211> 62
<212> PRT
<213> A.fumigatus

<400> 38382
Ile Asp Glu Cys Ser Leu Ile Ala Ile Gln Pro Ser Pro Thr Thr Tyr
1               5                   10                  15
Gly Leu Asp Ala Leu Pro His Lys Ser Ala Arg Lys Phe Ala Ala Cys
            20                  25                  30
Tyr Glu Ala Val Tyr Ile Trp Ser Ser Lys Leu Cys His Ser Ala His
        35                  40                  45
Cys Thr Lys Ile Leu Trp Asn Arg Trp Val Leu Arg Gly Arg
    50                  55                  60

<210> 38383
<211> 94
<212> PRT
<213> A.fumigatus

<400> 38383
Pro Ser Thr Cys Pro Glu Gln Lys Lys Thr Phe Thr Arg Lys Arg Tyr
1               5                   10                  15
Ala Pro Ser Asn Val Tyr Ser Lys Ser Leu Leu Thr His Gln Ile Glu
            20                  25                  30
Thr Gly Asn Thr Glu Ala Ser Leu Ile Ala Asn Glu Ala Ala Tyr Phe
        35                  40                  45
Ala Glu Ala Val Arg Leu Arg Glu Lys Tyr Ala Asp Gln Ile Gln Ile
    50                  55                  60
Leu Ile Gly Phe Glu Ile Asp Trp Ile Arg Pro Glu Ser Arg Thr Leu
65                  70                  75                  80
Ser Leu His Pro Gly Gly Pro Lys Glu Pro Arg Tyr Ala Tyr
                85                  90

<210> 38384
<211> 65
<212> PRT
<213> A.fumigatus

<400> 38384
Leu Ala Met Gly Val Met Gly Thr Leu Phe Gly Gly Ile Tyr Leu Ser
1               5                   10                  15
Thr Arg Gly Gly Gly Gln Lys Lys Gln Ala Thr Pro Pro Ile Gln Ala
            20                  25                  30
Ser Ser Lys Asp Glu Glu Lys Phe Ile Gln Tyr Val Cys Val His Ser
```

```
        35                  40                  45
Arg His Leu Leu Ser Asn Val Ala Val Pro Met Thr Pro Ser Asp Leu
    50                  55                  60
Gln
65

<210> 38385
<211> 123
<212> PRT
<213> A.fumigatus

<400> 38385
Val Thr Cys Leu Leu Ser His Ala Leu Leu Lys Thr Cys Ala Ala Met
1               5                   10                  15
Pro Phe Ser His His Ser His Ser Gly Gln Phe Cys Pro Gly His Ala
            20                  25                  30
Lys Asp Ser Leu Glu Glu Ile Ile Lys Leu Ala Ile Ser Lys Lys Phe
        35                  40                  45
Lys Val Phe Cys Leu Thr Glu His Met Pro Arg Ala Lys Glu Asp Phe
    50                  55                  60
Tyr Pro Glu Glu Val Arg Pro Lys Gln Arg Leu Phe Gln Ile Ser Ile
65                  70                  75                  80
Asp Ser Ser Asp Arg Asn Arg Gln His Arg Ser Leu Thr Asp Arg Gln
                85                  90                  95
Arg Ser Arg Ile Leu Cys Arg Gly Arg Pro Ala Thr Arg Glu Ile Cys
            100                 105                 110
Arg Pro Asp Pro Asp Pro His Trp Val Arg Asp
        115                 120

<210> 38386
<211> 122
<212> PRT
<213> A.fumigatus

<400> 38386
Thr Thr Ile Val Phe Asn Ser Asp Asp Tyr Trp Val Tyr Glu Arg Leu
1               5                   10                  15
Lys Arg Tyr Ala Thr Arg Met Glu Val Ile Pro Val Cys Asp Leu Pro
            20                  25                  30
Lys Ser Gln Ala Met Ala Ala Leu Lys Arg Tyr Arg Lys Gln Tyr Phe
        35                  40                  45
Asn Glu Asp Leu Ser Asp Gln Ser Leu Gln Thr Ile Tyr Asp Lys Val
    50                  55                  60
Gly Gly Arg Leu Ser Phe Leu Asn Arg Val Ala Lys Ala Arg Asp Tyr
65                  70                  75                  80
Met Lys Leu Cys Asp Ser Ile Cys Glu Ala Glu Lys Thr Trp Phe Leu
                85                  90                  95
Asn Lys Cys Trp Ile Leu Gly Glu Glu Met Asp Asp Asp Val Met Asp
            100                 105                 110
Gln Gln Lys Tyr Ala Val Arg Leu Gln Leu
        115                 120

<210> 38387
<211> 78
<212> PRT
<213> A.fumigatus
```

<400> 38387
Ala Phe Leu Ala Ser Val Thr Met Pro Leu Trp Ile Leu Ser Ala Asp
1 5 10 15
Ala Pro Ala Thr Thr Gly Arg Asp Val Leu Ser Phe Thr Phe Leu Ala
20 25 30
His Leu Pro Asn Tyr Ser Leu Leu Trp Ser Phe Tyr Gly Ile Arg Pro
35 40 45
Thr Thr Ile Leu Gly Ser Tyr Gly Ile Thr Leu Ile Ser Thr Ala Ile
50 55 60
Pro Phe Ile Leu Leu Arg Arg Pro Ser Ser Gly Pro Gln Ser
65 70 75

<210> 38388
<211> 164
<212> PRT
<213> A.fumigatus

<400> 38388
Gln Lys Asp Tyr Arg Ile Ala Gly Tyr Ser Tyr His Arg Tyr Tyr Lys
1 5 10 15
Tyr Leu Ile Leu Gln Lys Met Asp Asn Ala Phe Ser Pro Gly Asp Pro
20 25 30
Ala Leu Glu Val Ala Gly Val Glu Tyr Gly Lys His His Tyr His His
35 40 45
Asp Glu His Trp Val Val Arg Asp Glu Gln Glu Lys Leu Asp Arg Ile
50 55 60
Ile Gln Gly Arg Ser Gly Gly His Tyr Tyr Leu Ile Ile Gly Glu Lys
65 70 75 80
Gly Thr Gly Lys Thr Ser Met Leu Leu Glu Ala Met Arg Lys Thr Asn
85 90 95
Gly Asp Gly Val Ala Met Phe Glu Ala His Gly Asp Leu Glu Ile Phe
100 105 110
Arg Ile Arg Leu Gly Lys Ala Leu Asp Phe Glu Phe His Glu Glu Tyr
115 120 125
Val Pro Ala Ala Thr Leu Tyr Ser Ser Glu Gln Leu Leu Ile Glu Phe
130 135 140
Leu Gln Leu Tyr Arg Lys Ser Val Gln His Gln Arg Ser Thr Arg His
145 150 155 160
His Cys Pro Ala

<210> 38389
<211> 157
<212> PRT
<213> A.fumigatus

<400> 38389
Pro Ile Arg Leu Pro Trp Leu Thr Arg Lys Gln Ser Ala Ala Met Val
1 5 10 15
Leu Ala Lys Ala Leu Val Asp Lys Glu Lys Glu Met Glu Gln Thr Tyr
20 25 30
Asp Pro Glu Lys Gly His Ile Ile Pro Glu Ile Pro Leu His Glu Ala
35 40 45
Arg Gln Ile Met Thr Arg Ala Asp Phe Ile Gln Ser Tyr Asp His Glu
50 55 60

```
Asn Ile Phe Thr Ile Asp Ser Arg Gly Met Val Arg Ala Asp Ser Val
65                  70                  75                  80
Pro Met Gln Asn Ala Phe Arg Glu Ile Cys Ser Trp Pro Gly Phe Glu
                85                  90                  95
Glu His Leu Glu Ala Thr Leu Lys Arg Ile Gly Asp Ile Glu Ser Leu
            100                 105                 110
Gly Arg Thr Arg Glu Leu Thr Leu Lys Asp Leu Trp Asp Lys Gly Lys
        115                 120                 125
Tyr Gln Ile Thr Met Arg Asp Pro Lys Gly Arg Glu Asn Gly Thr Val
    130                 135                 140
Glu Phe Ser Val Lys Glu Arg Glu Glu Gly Asp Asp Asp
145                 150                 155
```

<210> 38390
<211> 60
<212> PRT
<213> A.fumigatus

<400> 38390

```
Met Leu Arg Phe His Asn Ile Phe Arg Gly Tyr Leu Ser Gly Thr Ala
1               5                   10                  15
His Pro Lys Asn Lys Asn Arg Asn Asn Asp Gln Ile Gln Asp Glu Asp
            20                  25                  30
Leu Tyr Lys Thr Met Lys Arg Ser Phe Thr Val Ser Cys Tyr Ala Ser
        35                  40                  45
Glu Met Thr Gln Gln Ile Leu Lys Tyr Gln Asn Asn
    50                  55                  60
```

<210> 38391
<211> 212
<212> PRT
<213> A.fumigatus

<400> 38391

```
Phe Tyr Arg Leu Gln Val Ser Ser Gln Glu Gln Val Gln Asp Val Arg
1               5                   10                  15
Gln Ser Ile Val Glu Leu Pro Ser Thr Phe Gln Tyr Thr Cys Phe His
            20                  25                  30
Leu Glu Phe Asn Gly Lys Arg Ile Asn Asp Phe Val Glu Leu Ser Glu
        35                  40                  45
Val Glu Gly Leu Lys Ala Asp Ser Glu Ile Val Leu Val Glu Asp Pro
    50                  55                  60
Tyr Thr Glu Lys Glu Ala Arg Met His Val Val Arg Phe Arg Asp Leu
65                  70                  75                  80
Val Gly Ala Ala Gly Asp Arg Ser Asp Asn Leu His Gly Leu Asn Ala
                85                  90                  95
Gly Leu Ser Leu His Asp Ala Val Thr Ala Glu Ala Ala Thr Asp Asp
            100                 105                 110
Val Lys Glu His Ser Leu Ser Lys Tyr Asp Ile Ala Ala Ser Pro Ser
        115                 120                 125
Leu Glu Thr Ile Leu Pro Arg Ala Glu Ala Pro Leu Pro Lys Thr Val
    130                 135                 140
Lys Ser Ile Ser Leu Ser Ala Trp Asn Pro Pro Pro Tyr His Leu Arg
145                 150                 155                 160
Gln Lys Gly His Leu Leu Tyr Leu Gln Val Thr Thr Asn Glu Gly Glu
                165                 170                 175
```

```
Gln Phe Gln Ile Thr Ser His Val Ser Gly Phe Tyr Val Asn Lys Cys
            180                 185                 190
Ser Asn His Lys Phe Asp Pro Leu Pro Ser Asn Ala Val Arg Ser Gln
        195                 200                 205
Gly Ala Val Ser
    210
```

<210> 38392
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38392

```
Asn Asn Asn Asn Asp Asn Asn Thr Tyr Met Asp Met Leu Lys Val Trp
1               5                   10                  15
Ser Glu Leu Ser Asn Leu Ile Tyr Lys Leu Ala Met Asn Ser Ser Leu
            20                  25                  30
Cys Trp Phe Tyr Leu Tyr Asp Pro Arg Pro Gln Leu His Phe Ala Gly
        35                  40                  45
Val Gln Lys Glu Gly Ser Arg Leu Ser Ser Gln Lys Gly Leu Arg Ala
    50                  55                  60
Ser Gly Gly Lys
65
```

<210> 38393
<211> 122
<212> PRT
<213> A.fumigatus

<400> 38393

```
Ala Ala Asn Leu Lys Thr Tyr Ile Glu Glu Thr Ser Gln Arg His Glu
1               5                   10                  15
Val Lys Thr Gly Trp Asn Ile Phe Asn Asp Lys Cys Ala Ala Thr Ser
            20                  25                  30
Val Val Val Lys Ile Ser Gly Glu Tyr Ala Ser Trp Ala Ala Phe Leu
        35                  40                  45
Ser Asp Trp Ser Thr Ala Asn Arg Pro Ile Ile Arg Gln Ala Leu Leu
    50                  55                  60
Ile Tyr Ser Ser Arg Ser Val Ser Gly Ser Ala Asp Phe Asn Val Ser
65                  70                  75                  80
Leu Ser Val Gln Gly Ala Asp Phe Arg Thr Ala Ala Asn Leu Asp Ile
                85                  90                  95
Thr Gly Ser Thr Ala Gly Tyr Pro Asn Arg Gly Glu Ala Cys Cys Met
            100                 105                 110
Trp Gly Gln Leu Pro Ala Ile Arg Cys Val
        115                 120
```

<210> 38394
<211> 337
<212> PRT
<213> A.fumigatus

<400> 38394

```
Ile Ile Ile Ser Pro Ser Asp Thr Asp Tyr Ile Asp Gln Leu Ile Pro
1               5                   10                  15
Ser Ile Arg Glu Tyr Ser Val Ser Asn Arg Thr Ser Gln Leu Leu Gln
```

```
            20                  25                  30
Ser Leu Ser Lys Phe Ala Ser Asp Gln Glu Ala Glu Ile Glu Pro Ile
        35                  40                  45
Cys Asn Thr Asn His Gln Glu Phe Val Ser Ser Ile Asn His Leu Leu
    50                  55                  60
Arg Ile Arg Glu Gly Thr Val Ser Leu Thr Ala Glu Ile Leu Asp Leu
65                  70                  75                  80
Asn Gln Ser Ile Gln Ala Ser Thr Glu Arg Leu Ala Glu Gln Lys Lys
                85                  90                  95
Ala Leu Val Glu Ser Arg Ser His Arg Gln Asn Ile Asp Glu Thr Ser
            100                 105                 110
Arg Ala Ile Gln Asp Cys Leu Glu Val Leu Arg Leu Ala Asn Gln Val
        115                 120                 125
His Asp Leu Leu Ala Lys Lys Asn His Tyr Ala Ala Leu Arg Ala Leu
    130                 135                 140
Glu Glu Leu Gln Asn Val His Leu Lys Asp Val Thr Gln Tyr Lys Ile
145                 150                 155                 160
Ala Asp Met Ile Gln Arg Ser Val Pro Ala Thr Gln Arg Ala Ile Ala
                165                 170                 175
Glu Ala Val Leu Ser Asp Leu Asn Thr Trp Leu Tyr Arg Ile Arg Glu
            180                 185                 190
Met Ser Gln Phe Leu Gly Glu Ile Ala Leu Tyr His Thr Glu Cys Arg
        195                 200                 205
Lys Thr Arg Leu Lys Glu Arg Ala Glu Lys Leu Pro Tyr Leu Arg His
    210                 215                 220
Phe Lys Leu Asn Ser Ala Ile Glu Leu Val Ser Asp Glu His Glu Glu
225                 230                 235                 240
Phe Asp Leu Leu Gln Asn Glu Glu Leu Gln Val Asp Phe Thr Pro Leu
                245                 250                 255
Phe Glu Cys Leu His Ile His Gln Ser Leu Gly Gln Met Asp Lys Phe
            260                 265                 270
Arg Thr Glu Tyr Ala Asn Thr Arg Arg Arg Gln Lys Glu Leu Leu Ile
        275                 280                 285
Pro Ser Thr Ile Thr Leu Val Asp Glu Asp Gly Ala Ser Leu His Asn
    290                 295                 300
Leu Leu Glu Glu Met Ala Gly Phe Ala Ile Val Glu Arg Ala Thr Met
305                 310                 315                 320
Lys Arg Val Pro Asp Leu Arg Ser Ser Val Asp Val Glu Ser Pro Phe
                325                 330                 335
Ser
```

<210> 38395
<211> 476
<212> PRT
<213> A.fumigatus

<400> 38395

```
Arg Gly Glu Gly Glu His Pro Glu Trp Glu Ile Asp Ser Ser Pro Tyr
1               5                   10                  15
Glu Ser Ser Ser Asp Asp Ser Thr Thr Asp Ser Ser Asp Asp Ser Asp
            20                  25                  30
Asp Glu Asp Asp Asp Tyr Pro Ile Leu Ser Ala Glu Glu Thr Ala Arg
        35                  40                  45
Ile Leu Met Met Ala Glu Asn Gly Ser Asp Asp Glu Gly Glu Gly Lys
    50                  55                  60
```

```
Gly Arg Ser Gly Gly Thr Leu Arg Thr Ala Asn Glu Ile Pro Glu Glu
65                  70                  75                  80
Ala Pro Pro Ile Pro Glu Ile Thr Val Thr Pro Asp Met Lys Ile Val
                85                  90                  95
His Leu Gly His Val Glu Ser Ile Val Glu Asn Thr Ile Leu Ile Ala
            100                 105                 110
Ala Asn Ile Ser Gly Glu Tyr Gln Val Leu Glu Ser Gly Ser Leu Leu
        115                 120                 125
Cys Leu Glu Asp Arg Thr Val Ala Gly Val Val Ser Glu Thr Leu Gly
    130                 135                 140
Arg Val Glu Lys Pro Leu Tyr Ala Val Arg Phe Pro Asn Ala Ala Ala
145                 150                 155                 160
Ile Glu Glu Arg Gly Leu Ser Lys Gly Lys Asn Val Tyr Tyr Val Glu
                165                 170                 175
Glu His Ser Thr Phe Val Phe Thr Gln Pro Leu Lys Gly Leu Lys Gly
            180                 185                 190
Ser Asp Ala Ser Asn Phe His Asp Glu Glu Val Gly Glu Asp Glu Ile
        195                 200                 205
Glu Phe Ser Asp Asp Glu Ala Glu Ala Glu Tyr Lys Arg Arg Leu Lys
    210                 215                 220
Gln Lys Arg Gln Glu Arg Lys Glu Ala Arg Asn Glu Asn Gly Gly Pro
225                 230                 235                 240
Ser Arg Gly Arg Arg Gly Pro Pro Gly Pro Ser Lys Leu Ser Gln Thr
                245                 250                 255
Glu Leu Asn Tyr Asp Asp Ser Pro Thr Ala Glu Asp Gly Tyr Thr Pro
            260                 265                 270
Leu Ala Arg Pro Lys Asn Leu His Glu Met Met Ser Gln Gln Glu Ala
        275                 280                 285
Pro Val Glu Gly Glu Gly Ser Ser Arg Asn Pro Ala Phe Arg Gly Gly
    290                 295                 300
Arg Gly Arg Gly Arg Gly Ser Asp Arg Gly Arg Gly Asn Arg Gly Arg
305                 310                 315                 320
Gly Ala Gly Gly Ser Arg Glu Thr Arg Glu His Ser Ser His His Asp
                325                 330                 335
Arg Ser Ser Tyr Ser Gln Gln Pro Arg Pro Phe Asp Ala Gln Ala Gln
            340                 345                 350
Pro Ser Asn Tyr Ser Gln Gln Pro Ser Tyr Pro Pro Ala Gln Gln Asn
        355                 360                 365
Val Tyr Gly Met Pro Gln Gln Phe Ala Pro Phe Gln Pro Phe Ala Gln
    370                 375                 380
Gln Pro Gln Gln Ala Phe Pro Gln Ser Ala Ser Pro Thr Gln Phe Asn
385                 390                 395                 400
Phe Gln Met Pro Phe Gln Gln Ala Tyr Gln Pro Pro Asn Leu Tyr Gln
                405                 410                 415
Asn Phe Pro Ala Ile Asn Pro Leu Phe Leu Ala Ala Met Gln Gln Gln
            420                 425                 430
Gln Gln Pro Gln Arg His Thr Ser Glu Gln Ser Gln Val Gln Asn Pro
        435                 440                 445
Thr Met Asn Phe Asp Gln Val Lys Ala Gln Leu Asp Leu Leu Arg His
    450                 455                 460
Leu Ser Asn Ala Asn Gln Gly Pro Pro Gly Pro Gln
465                 470                 475
```

<210> 38396
<211> 294
<212> PRT

<213> A.fumigatus

<400> 38396
Ala Leu Phe Phe Gln Arg Leu Val Lys Thr Ser Ile Ile Thr Leu Tyr
1 5 10 15
Val Gln His Pro Val Leu Leu Glu Pro Pro Gln Glu Lys His Met Pro
20 25 30
Gly Gln Lys Pro Met Tyr Leu Thr Pro Lys Glu Gln Ala Lys Ile Arg
35 40 45
Arg Gln Arg Arg Met Ala Asp Leu Lys Glu Gln Gln Ala Lys Ile Arg
50 55 60
Leu Gly Leu Glu Pro Ala Pro Pro Pro Lys Val Lys Lys Ser Asn Leu
65 70 75 80
Met Arg Val Leu Gly Glu Glu Ala Val Lys Asp Pro Thr Ala Val Glu
85 90 95
Ala Arg Val Asn Arg Glu Ile Ala Glu Arg Arg Glu Lys His Glu Ala
100 105 110
Thr Asn Glu Ala Arg Lys Leu Thr Lys Glu Gln Arg Arg Glu Lys Ile
115 120 125
Ala Lys Gln Gln Glu Lys Asp Ala Glu Met Gly Ile Tyr Val Ser Val
130 135 140
Tyr Arg Ile Asp Ser Leu Ala Asn Gly Arg His Arg Phe Lys Val Ser
145 150 155 160
Lys Asn Ala Glu Gln Asn Ala Leu Thr Gly Val Cys Ile Met His Pro
165 170 175
Arg Phe Asn Leu Val Ile Val Glu Gly Gly Ala His Ser Ile Thr Asn
180 185 190
Tyr Arg Lys Leu Met Leu Asn Arg Ile Asp Trp Thr Glu Asn Ala Gly
195 200 205
Pro Asn Ser Val Arg Glu Gly Asn Arg Glu Ala Ser Ala Ser Trp Leu
210 215 220
Ser Ala Glu Asp Glu Lys Thr Gly Ala Leu Lys Asp Leu Ser Ser Asn
225 230 235 240
Thr Cys Ser Leu Leu Trp Glu Gly Gln Ala Lys Ser Arg Ser Phe Arg
245 250 255
Lys Trp Leu Gly Ala Arg Val Cys Glu Thr Asp Ser Gln Ala Lys Asp
260 265 270
Val Leu Ala Arg Ala Lys Met Glu Asn Phe Trp Val Leu Ala Lys Ser
275 280 285
Ala Lys Pro Lys Glu Val
290

<210> 38397
<211> 278
<212> PRT
<213> A.fumigatus

<400> 38397
Gly Val Glu Ile Ala Val Asp Tyr Leu Phe Phe Gln Lys Phe Ala Ile
1 5 10 15
Val Pro Trp Asn Ile Val Ala Tyr Asn Ile Phe Gly Gly Glu Gly Arg
20 25 30
Gly Pro Asp Ile Phe Gly Thr Glu Pro Trp Thr Phe Tyr Ile Lys Asn
35 40 45
Leu Leu Leu Asn Phe Asn Ile Trp Phe Val Leu Ala Val Ser Ala Ala
50 55 60

```
Pro Ile Leu Val Leu Gln Ala Ile Phe Arg Ser Gln Ala Thr Asn Val
65                  70                  75                  80
Gln Thr Leu Leu Arg Thr Val Thr Leu Val Thr Pro Phe Tyr Met Trp
                85                  90                  95
Leu Ala Ile Phe Thr Ile Gln Pro His Lys Glu Glu Arg Phe Met Tyr
            100                 105                 110
Pro Ala Tyr Pro Phe Ile Ala Leu Asn Ala Ala Ile Ser Phe His Met
        115                 120                 125
Ile Leu Ser Tyr Val Gly Ser Ser Asn Pro Lys Glu Ile Ile Gly Arg
    130                 135                 140
Leu Ser Pro Lys Val Lys Leu Thr Met Val Met Ala Val Ile Leu Met
145                 150                 155                 160
Ala Ile Asn Ala Gly Leu Leu Arg Thr Leu Gly Met Ile Thr Ala Tyr
                165                 170                 175
Asn Ala Pro Leu Lys Val Met Glu Pro Leu Gln Gln Leu Glu Met Ala
            180                 185                 190
Gln Ser Gly Gly Phe Val Cys Phe Gly Lys Glu Trp Tyr Arg Phe Pro
        195                 200                 205
Ser Ser Tyr Phe Leu Pro Asn Gly Met Arg Ala Lys Phe Ile Lys Ser
    210                 215                 220
Glu Phe Arg Gly Leu Leu Pro Gly Glu Phe Pro Glu Ala Pro Ser Tyr
225                 230                 235                 240
Ser Ser Leu Leu Arg Gly Thr Ser Gln Ile Pro Ala Gly Met Asn Asp
                245                 250                 255
Arg Asn Glu Glu Asp Leu Gly Lys Tyr Val Ser Asp Asp Cys Leu Ile
            260                 265                 270
Leu Val Leu Val Gln Ser
        275
```

<210> 38398
<211> 297
<212> PRT
<213> A.fumigatus

```
<400> 38398
Phe Leu Arg Val Ser Val Leu Glu Asn Asn Gln Tyr Gly Ser Gly Gln
1               5                   10                  15
Lys Gly Asp Pro Val Asn Lys Trp Leu Ser Lys Asp Glu Ala Thr Val
            20                  25                  30
Ser Gln Pro Thr Ile Ala Ser Leu Ala Phe Gln Leu Thr Ile Arg Ala
        35                  40                  45
Pro Arg Ser Ser Arg Pro Val Pro Phe Tyr Leu Pro Leu Asn Val Thr
    50                  55                  60
Leu Tyr Val Phe Leu Ile Ser Asn Phe Val Ala Ala Ala Leu Ala Pro
65                  70                  75                  80
Ile Gln Asp Cys Asp Glu Val Phe Asn Phe Trp Glu Pro Ala His Tyr
                85                  90                  95
Leu Asp His Gly Tyr Gly Leu Gln Thr Trp Glu Tyr Ser Pro Ala Tyr
            100                 105                 110
Ser Ile Arg Ser Trp Leu Tyr Val Ser Ala His Ala Gly Val Gly Lys
        115                 120                 125
Ile Val Ser Ile Phe Ser Ser Asp Lys Thr Ser Glu Phe Tyr Thr Ile
    130                 135                 140
Arg Phe Val Leu Ala Ala Val Cys Ala Ala Cys Glu Thr Arg Leu Tyr
145                 150                 155                 160
Ser Ala Ile Cys Arg Thr Leu Asn Pro Arg Val Gly Leu Leu Phe Leu
```

```
                165                 170                 175
Ile Ile Val Ala Phe Ser Pro Gly Met Phe His Ala Ser Ala Ala Phe
            180                 185                 190
Leu Pro Ser Ser Phe Thr Met Tyr Thr Ser Met Leu Gly Leu Ala Ser
        195                 200                 205
Phe Leu Asp Trp Arg Gly Gly Gln Lys Thr Ala Gln Gly Ile Met Trp
    210                 215                 220
Phe Gly Leu Gly Ala Ile Met Gly Trp Pro Phe Ala Gly Ala Leu Ile
225                 230                 235                 240
Ile Pro Leu Leu Leu Glu Glu Val Ala Ile Ser Phe Ile Ala Gly Thr
                245                 250                 255
Leu Gly Asn Leu Phe Val Asp Ile Phe Lys Gly Ile Ile Arg Cys Leu
            260                 265                 270
Ala Ile Leu Val Arg Phe Phe Arg Leu Leu Leu Leu Arg Phe Ser Leu
        275                 280                 285
Ser Asp Ile Gly Arg Arg Asn Arg Gly
    290                 295
```

<210> 38399
<211> 187
<212> PRT
<213> A.fumigatus

<400> 38399

```
Ser Trp His Cys Trp Cys Ser Ser Ser Arg His Gly Pro Ser Thr Thr
1               5                   10                  15
Arg Pro Ser Arg Pro Pro Pro Thr Thr Met Asn Ser Leu Ser Ser Ala
            20                  25                  30
Ala Pro Thr Trp Pro Arg Gln Thr Asn Cys Pro Pro Glu Ser Ala Ser
        35                  40                  45
Thr Arg Ser Ala Ser Pro Leu Trp Ser Ala Pro Pro Pro Asp Ala Ser
    50                  55                  60
Ser Pro Ser Pro Arg Ala Ala Asp Thr Pro Thr Lys Thr Leu Ala Thr
65                  70                  75                  80
Ser Thr Leu Ser Thr Ser Ala Pro Arg Gln Pro Pro Thr Thr Ala Pro
                85                  90                  95
Val Arg Pro Thr Gly Ser Leu Ser Gly Lys Ser Ser Ala Pro Ala Pro
            100                 105                 110
Ala Pro Gly Ala Ile Arg Pro Arg Ser Ser Thr Thr Thr Thr Pro Ser
        115                 120                 125
Thr Cys Phe Ser Arg Gly Thr Ala Pro Pro Thr Ala Arg Thr Ala Arg
    130                 135                 140
Thr Ser Ser Pro Thr Ala Arg Ser Pro Arg Lys Ser Thr Pro Leu Gly
145                 150                 155                 160
Lys Ala Ala Asp Thr Cys Thr Ser Pro Ser Pro Glu Thr Thr Ala Thr
                165                 170                 175
Pro Gly Pro Ser Pro Ser Ile Ser Pro Arg Asn
            180                 185
```

<210> 38400
<211> 229
<212> PRT
<213> A.fumigatus

<400> 38400

```
Ile Pro Ser Leu Pro Gln Arg Gln His Gly Leu Ala Arg Gln Thr Val
```

```
1               5                   10                  15
His Arg Asn Arg Leu Pro Leu Val Pro His Pro Arg Cys Gly Pro His
            20                  25                  30
His His Arg Thr His Pro Arg Leu Arg Arg Gly Pro Pro Thr His Gln
        35                  40                  45
Pro Arg Leu Trp Arg His Gln Pro Cys Leu Gln Ala His Gln Asp Asn
    50                  55                  60
Arg Gln Gln Arg Arg Gln Ser Val Arg Leu Gly Ala Ser Pro Gly Ser
65                  70                  75                  80
Arg Arg Leu Arg Arg Arg His Leu Gly Gln Ser Asp Pro Gly Arg Arg
                85                  90                  95
Arg Arg Gln His His Leu Pro Val Ser Leu Val Glu Arg Arg His Leu
            100                 105                 110
Gln Pro Glu Arg Gln Gly Arg Pro Pro Arg Arg His Gly His Gln Glu
        115                 120                 125
Asn Arg Leu His Leu Gly Arg Pro Pro Thr Pro Val Pro His Arg Val
    130                 135                 140
Pro Arg Arg Arg Gln His Leu Val Gln Ala Arg Arg Ser His Gln Gly
145                 150                 155                 160
Thr Asp Pro Gly Arg Leu Gly Met Gly Arg Gly Arg Pro Arg Gln Arg
                165                 170                 175
His Pro Pro His Asp Arg Arg Ala Gly His Pro Arg His Gly Pro Gln
            180                 185                 190
His His Arg Ala Arg Arg Ala Gly Gln Pro His Val Glu Arg Ala Ala
        195                 200                 205
Ala Val Arg Gly Arg Gly Gly Gly Asp Asp Arg Ala Asp Ala Arg Arg
    210                 215                 220
Glu Ala Val Pro Gln
225
```

<210> 38401
<211> 413
<212> PRT
<213> A.fumigatus

<400> 38401

```
Cys Cys Pro Ala Thr Ser Lys Met Gln Ser Met Arg Phe Met Ile Leu
1               5                   10                  15
Ala Leu Leu Val Gln Phe Leu Pro Ala Trp Ala Ile Asn Asp Pro Ala
            20                  25                  30
Lys Ser Ala Ala Pro Tyr His Asp Glu Phe Pro Leu Phe Arg Ser Ala
        35                  40                  45
Asn Met Ala Ser Pro Asp Lys Leu Ser Thr Gly Ile Gly Phe His Ser
    50                  55                  60
Phe Arg Ile Pro Ala Val Val Arg Thr Thr Thr Gly Arg Ile Leu Ala
65                  70                  75                  80
Phe Ala Glu Gly Arg Arg His Thr Asn Gln Asp Phe Gly Asp Ile Asn
                85                  90                  95
Leu Val Tyr Lys Arg Thr Lys Thr Thr Ala Asn Asn Gly Ala Ser Pro
            100                 105                 110
Ser Asp Trp Glu Pro Leu Arg Glu Val Val Gly Ser Gly Ala Gly Thr
        115                 120                 125
Trp Gly Asn Pro Thr Pro Val Val Asp Asp Asp Asn Thr Ile Tyr Leu
    130                 135                 140
Phe Leu Ser Trp Asn Gly Ala Thr Tyr Ser Gln Asn Gly Lys Asp Val
145                 150                 155                 160
```

```
Leu Pro Asp Gly Thr Val Thr Lys Lys Ile Asp Ser Thr Trp Glu Gly
                165                 170                 175
Arg Arg His Leu Tyr Leu Thr Glu Ser Arg Asp Asp Gly Asn Thr Trp
            180                 185                 190
Ser Lys Pro Val Asp Leu Thr Lys Glu Leu Thr Pro Asp Gly Trp Ala
        195                 200                 205
Trp Asp Ala Val Gly Pro Gly Asn Gly Ile Arg Leu Thr Thr Gly Glu
    210                 215                 220
Leu Val Ile Pro Ala Met Gly Arg Asn Ile Ile Gly Arg Gly Ala Pro
225                 230                 235                 240
Gly Asn Arg Thr Trp Ser Val Gln Arg Leu Ser Gly Ala Gly Ala Glu
                245                 250                 255
Gly Thr Ile Val Gln Thr Pro Asp Gly Lys Leu Tyr Arg Asn Asp Arg
            260                 265                 270
Pro Ser Gln Lys Gly Tyr Arg Met Val Ala Arg Gly Thr Leu Glu Gly
        275                 280                 285
Phe Gly Ala Phe Ala Pro Asp Ala Gly Leu Pro Asp Pro Ala Cys Gln
    290                 295                 300
Gly Ser Val Leu Arg Tyr Asn Ser Asp Ala Pro Ala Arg Thr Ile Phe
305                 310                 315                 320
Leu Asn Ser Ala Ser Gly Thr Ser Arg Arg Ala Met Arg Val Arg Ile
                325                 330                 335
Ser Tyr Asp Ala Asp Ala Lys Lys Phe Asn Tyr Gly Arg Lys Leu Glu
            340                 345                 350
Asp Ala Lys Val Ser Gly Ala Gly His Glu Gly Gly Tyr Ser Ser Met
        355                 360                 365
Thr Lys Thr Gly Asp Tyr Lys Ile Gly Ala Leu Val Glu Ser Asp Phe
    370                 375                 380
Phe Asn Asp Gly Thr Gly Lys Asn Ser Tyr Arg Ala Ile Ile Trp Arg
385                 390                 395                 400
Arg Phe Asn Leu Ser Trp Ile Leu Asn Gly Pro Asn Asn
                405                 410
```

<210> 38402
<211> 457
<212> PRT
<213> A.fumigatus

<400> 38402

```
Asp Pro Pro Trp Arg Ile Tyr Leu Leu Tyr Pro Cys Lys His Ser His
1               5                   10                  15
His Arg Asp Ala Asn Asp Asp Asn Leu Ile Val Arg Thr Ile Gln Asp
            20                  25                  30
Pro Arg Gln Ile Glu Ser Pro Pro Asp Asp Arg Pro Ile Arg Ile Leu
        35                  40                  45
Ala Ser Ala Ile Ile Glu Glu Ile Ala Leu His Gln Arg Pro Asn Leu
    50                  55                  60
Val Ile Pro Arg Leu Gly His Thr Arg Ile Thr Pro Phe Met Thr Arg
65                  70                  75                  80
Pro Ala Asp Leu Gly Ile Leu Gln Leu Ala Pro Val Val Glu Leu Leu
                85                  90                  95
Arg Val Arg Val Val Ala Asp Pro His Ala His Arg Pro Pro Thr Arg
            100                 105                 110
Pro Arg Arg Gly Ile Gln Lys Asp Arg Pro Arg Arg Arg Ile Ala Val
        115                 120                 125
Ile Pro Gln His Arg Ser Leu Ala Arg Arg Val Arg Gln Pro Ser Val
```

```
    130                 135                 140
Arg Gly Lys Arg Pro Glu Ala Leu Glu Arg Pro Ala Arg His His Pro
145                 150                 155                 160
Val Pro Leu Leu Ala Gly Pro Val Ile Ala Val Gln Leu Pro Val Gly
                165                 170                 175
Arg Leu His Asp Arg Pro Leu Arg Pro Gly Pro Gly Gln Pro Leu His
            180                 185                 190
Ala Pro Arg Ala Val Ala Arg Arg Ala Ala Pro Asp Asp Val Ala Ala
        195                 200                 205
His Gly Gly Asp Asp Gln Leu Ala Gly Arg Glu Ala Asp Ala Val Ala
    210                 215                 220
Gly Ala Asp Arg Val Pro Cys Pro Ala Val Arg Gly Gln Phe Leu Gly
225                 230                 235                 240
Glu Ile Asp Gly Leu Gly Pro Gly Val Ala Val Val Ser Gly Leu Gly
                245                 250                 255
Glu Val Gln Val Ser Ala Ala Phe Pro Ser Gly Val Asp Phe Leu Gly
            260                 265                 270
Asp Arg Ala Val Gly Glu Asp Val Leu Ala Val Leu Ala Val Gly Gly
        275                 280                 285
Ala Val Pro Arg Glu Lys Gln Val Asp Gly Val Val Val Val Asp Asp
    290                 295                 300
Arg Gly Arg Ile Ala Pro Gly Ala Gly Ala Gly Ala Asp Asp Phe Pro
305                 310                 315                 320
Glu Arg Leu Pro Val Gly Arg Thr Gly Ala Val Val Gly Gly Cys Leu
                325                 330                 335
Gly Ala Leu Val Asp Lys Val Asp Val Ala Lys Val Leu Val Gly Val
            340                 345                 350
Ser Ala Ala Leu Gly Glu Gly Glu Asp Ala Ser Gly Gly Gly Ala Asp
        355                 360                 365
His Ser Gly Asp Ala Glu Arg Val Glu Ala Asp Ser Gly Gly Gln Phe
    370                 375                 380
Val Trp Arg Gly His Val Gly Ala Ala Glu Glu Arg Glu Phe Ile Val
385                 390                 395                 400
Val Gly Gly Gly Arg Leu Gly Arg Val Val Asp Gly Pro Cys Arg Glu
                405                 410                 415
Glu Leu His Gln Gln Cys Gln Asp His Glu Ala His Arg Leu His Leu
            420                 425                 430
Ala Arg Cys Trp Thr Thr Leu Trp Trp Glu Thr Val Glu Glu Ile Tyr
        435                 440                 445
Ser His Arg Val Lys Ser His Pro Asp
    450                 455
```

<210> 38403
<211> 166
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (158),(163)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38403

```
Gly Leu Asp Ser Ala Thr Lys Gly Ala Asn Val Glu Val Asn Val Glu
1               5                   10                  15
Lys Glu Glu Lys Glu Glu Lys Glu Glu Lys Glu Glu Lys Glu Glu Arg
```

```
            20                  25                  30
Glu Glu Arg Gly Asp Gly Arg Asp Pro Pro Ile Thr Ala Pro Gly Val
        35                  40                  45
His Asp Val Asn Thr Arg Gln Thr His Thr Arg Arg Val Ala Thr Thr
    50                  55                  60
Ala Arg Glu Asn Glu Arg Thr Ala Thr Pro Ala Gly Glu Thr Thr Val
65                  70                  75                  80
Asn Gly Thr Gly Thr Val Val Ile Ala Ala Thr Ala Asp Ala Glu Ile
                85                  90                  95
Ser Met Thr Asp His Leu Asp Val Thr Val Ile Glu Thr Cys Leu Thr
            100                 105                 110
Arg Asn Pro Gly Glu Asn Glu Gly Glu Thr Ala Ser Ala Thr Gly Arg
        115                 120                 125
Gly Lys Asn Gly Lys Glu Ala Gln Pro Pro His Ala Arg Arg Glu Pro
    130                 135                 140
Thr Pro Asp Leu Thr Asp Val Pro Ser Val Leu Thr Arg Xaa Arg Arg
145                 150                 155                 160
Leu Thr Xaa Val Gly His
                165
```

<210> 38404
<211> 221
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (19),(114),(157)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38404

```
Val Ala Thr Ala Arg Arg Val Cys Leu Ser Ile Ser Lys Leu Trp Leu
1               5                   10                  15
Thr Phe Xaa Ala Met Phe Pro Phe Pro Gly Ala Leu Arg Gln Gln Pro
            20                  25                  30
Met Asn Pro Ser Arg Phe Gln Ala Phe Met Asn Gln Ser Gly Gly Gly
        35                  40                  45
Ser Ala Asp Asn Ser Ala Leu Lys Pro Pro Asn Ser Arg Gln Ala Arg
    50                  55                  60
Arg Leu Phe Val Tyr Asn Leu Pro Pro Gly Val Ser Ser Glu His Leu
65                  70                  75                  80
Val Ser Phe Phe Asn Leu Gln Leu Asn Gly Leu Asn Val Ile His His
                85                  90                  95
Val Asp Pro Cys Ile Ser Ala Gln Ile Ser Glu Asp His Ser Phe Ala
            100                 105                 110
Leu Xaa Glu Phe Lys Thr Pro Asn Asp Ala Thr Val Ala Leu Ala Phe
        115                 120                 125
Asp Gly Ile Thr Met Glu Glu His Glu Pro Val Ser Gly Ala Glu Asn
    130                 135                 140
Gly Ala Pro Lys Gly Leu Glu Val Arg Arg Pro Lys Xaa Tyr Ile Val
145                 150                 155                 160
Pro Asn Gly Ser Ala Asp Gln Glu Tyr Gln Glu Gly Val Leu Leu Asn
                165                 170                 175
Glu Val Pro Asp Ser Pro Asn Lys Ile Cys Val Ser Asn Ile Pro Gln
            180                 185                 190
Tyr Ile Pro Glu Glu Pro Val Thr Met Leu Leu Lys Ser Phe Gly Glu
```

```
        195                 200                 205
Leu Lys Val Phe Thr Thr Arg Leu Glu Gly Gln Ile Ser
    210                 215                 220

<210> 38405
<211> 153
<212> PRT
<213> A.fumigatus

<400> 38405
Gln Arg Asp Glu Arg Arg Glu Arg Gly Gly Glu Arg Gly Glu Arg Gly
1               5                  10                  15
Glu Arg Gly Glu Arg Gly Glu Arg Gly Glu Arg Gly Glu Arg Gly Glu
            20                  25                  30
Arg Arg Arg Ser Arg Ser Pro His Tyr Ser Ser Arg Gly Ser Arg Arg
        35                  40                  45
Glu Tyr Glu Ala Asp Ser Tyr Ser Ser Ser Arg Asp Tyr Arg Ala Arg
    50                  55                  60
Glu Arg Glu Asp Arg Tyr Ser Ser Arg Arg Asp Asp Arg Glu Trp Asp
65                  70                  75                  80
Arg Asp Arg Gly Asp Arg Gly Asp Arg Arg Arg Arg Asp Phe Asp Asp
                85                  90                  95
Arg Pro Ser Arg Arg Asp Arg Asp Arg Asp Leu Phe Asp Glu Lys Pro
            100                 105                 110
Arg Arg Glu Arg Gly Gly Asp Arg Glu Arg Asp Arg Glu Arg Lys Glu
        115                 120                 125
Arg Lys Arg Ser Thr Thr Pro Pro Arg Lys Glu Gly Ala Tyr Thr Arg
    130                 135                 140
Pro Asp Arg Cys Thr Ile Cys Ser Asp
145                 150

<210> 38406
<211> 445
<212> PRT
<213> A.fumigatus

<400> 38406
Leu Phe Arg Ala Ser Arg Trp His Asn Val Pro Glu Ser Asp Glu Trp
1               5                  10                  15
Arg Cys Val Leu His Gly Arg Leu Leu Ser Leu Lys Gln Asp Pro Gln
            20                  25                  30
Tyr Leu Tyr Tyr Arg Thr Tyr Arg Ser Leu Ile Ser Gln Ser Thr Thr
        35                  40                  45
Thr Pro Arg Ile Gln Pro Ser Ser Ser Ser Ser Pro Arg Ala Glu Ser
    50                  55                  60
Ile Gly Ala Val Asn Gly Pro His Gly Glu Ile Thr Gln Met Gly Ser
65                  70                  75                  80
Ser Asn Asp Phe His Asp Asp Glu Thr Leu Glu Leu Leu Lys His Tyr
                85                  90                  95
Leu Asn Leu Ser Ser Asn Leu Thr Asp Leu Tyr Thr Gln Trp Ser Ser
            100                 105                 110
Gln Asp Pro Asn Phe Lys Lys Lys Ala Pro Gln Phe Thr Gly Ile Arg
        115                 120                 125
Ile Leu Arg Gln Asp Ala Trp Glu Ala Leu Val Ser Phe Ile Cys Ser
    130                 135                 140
Ser Asn Asn Asn Ile Thr Arg Ile Ser Gln Met Val Glu Lys Leu Cys
```

```
145                 150                 155                 160
Val Asn Tyr Gly Pro Leu Val Ala Thr Val Gly Asp Arg Ala Tyr His
                165                 170                 175
Asp Phe Pro Pro Pro Glu Ala Leu Thr Ala Asp Asp Val Glu Gly Arg
            180                 185                 190
Leu Arg Ser Leu Gly Phe Gly Tyr Arg Ala Lys Tyr Ile His Gln Thr
        195                 200                 205
Ala Leu Ile Val Ala Lys Glu Arg Glu Gln Gly Trp Leu Asp Ser Leu
    210                 215                 220
Arg Asn Pro Glu Ser Pro Val Leu Gly Val Gln Pro Val Pro Gly Asp
225                 230                 235                 240
Glu Met Arg Pro Glu Gly Arg Gln Gly Tyr Arg His Ala His Glu Gln
                245                 250                 255
Leu Leu Gly Leu Gln Gly Val Gly Pro Lys Val Ala Asp Cys Val Cys
            260                 265                 270
Leu Met Gly Leu Gly Trp Gly Glu Ala Val Pro Val Asp Thr His Gly
        275                 280                 285
Glu Arg Leu Ser Thr Cys Leu Leu Trp Ile Thr Tyr Val Asn Ser Leu
    290                 295                 300
Phe Leu Val Trp Gln Ile Ala Gln Arg Asp Tyr Lys Phe Gly Arg Gly
305                 310                 315                 320
Ala His Lys Ser Leu Thr Lys Ala Thr Tyr Asp Ala Val Gly Asn His
                325                 330                 335
Phe Arg Lys Leu Trp Gly Lys Asp Ala Gly Trp Ala His Ser Val Leu
            340                 345                 350
Phe Thr Ala Asp Leu Arg Ala Phe Ser Asp Arg Leu Ala Gly Ala Ser
        355                 360                 365
Gly Lys Ile Asp Val Lys Val Ala Val Arg Glu Glu Gly Glu Asp Lys
    370                 375                 380
Glu Ser Val Lys Val Glu Thr Glu Val Thr Thr Ser Thr Ala Tyr Ala
385                 390                 395                 400
Leu Lys Arg Pro Ala Thr Glu Lys Leu Leu Glu Ser Lys Asp Met Lys
                405                 410                 415
Glu Glu Ser Lys Gly Asn Glu Lys Ala Val Ile Gln Ala Ser Gln Thr
            420                 425                 430
Thr Thr Thr Arg Arg Met Ser Lys Arg Leu Arg Asn Arg
        435                 440                 445
```

<210> 38407
<211> 183
<212> PRT
<213> A.fumigatus

<400> 38407

```
Gly Ser Leu Phe Phe Pro Ala Pro Arg Val Arg Arg His Gly Arg Thr
1               5                   10                  15
Ala Ser Gly Met His Gly Lys Gly Glu Asp Gly Val Gly Ala Arg Gly
            20                  25                  30
Asp Ala Gly Ser Pro Asp Ala Ser Asn Gly Ser Ala Asp Asp Gln Gly
        35                  40                  45
His Gly Val Phe Gly Asp Gly Ala Asp Gln Arg Ser Asn Leu Glu Glu
    50                  55                  60
Gln Asp Gly Gly Glu Lys Ala Gln Leu Glu Gly Lys Val Ala Val Asp
65                  70                  75                  80
Leu Ala Pro Gly Ala Leu Glu Gly Gly Glu Arg Gln Lys Glu Gly Gly
                85                  90                  95
```

```
Pro Ile Pro Pro Asp Ile Arg His Arg Val Glu Leu Val Gly Asp Pro
            100                 105                 110
Gly Asp Arg Gly Gly His Asn Gly Gly Val Glu Arg Asp Glu Glu Asp
        115                 120                 125
Gly Ser Gln Gln Thr Gly His Asp Asp Thr Glu Gly Glu Ala Arg Gly
    130                 135                 140
Ile Leu His Leu Leu Leu Gly Gly Arg Val Phe Ala His Asp Gly Ile
145                 150                 155                 160
Ile Gly Arg Ala Thr Gln Leu Leu Leu Arg Leu Phe Asp Arg Arg Thr
                165                 170                 175
Gly His Asn Gly Arg Cys Gln
            180
```

<210> 38408
<211> 324
<212> PRT
<213> A.fumigatus

<400> 38408

```
Phe Thr Asp Pro Ile Glu Arg Leu Ser Trp Ser Pro Asn Arg Thr Ile
1               5                   10                  15
Lys Val Val Arg Arg Pro Lys Ser Gly Tyr Val Ser Ile Cys Leu Arg
            20                  25                  30
Gln Cys Ser Val Tyr Val Ser Glu Cys Ser His Gln Gln Val Cys Asn
        35                  40                  45
Pro Arg Pro Gln Ala Lys Leu Thr Ser Lys Arg Thr Met Ala Pro Gly
    50                  55                  60
Leu Leu Glu Asn Asn Thr Leu Ser Gly Thr Ala Ala Pro Arg Thr Glu
65                  70                  75                  80
Phe Lys Ala Ile Val Asn Asp Leu Arg Glu Leu Gln Ala His Val Gln
                85                  90                  95
Arg Val Gln Ser Ala Ile Glu Ala Pro Glu Val Gln Ser Trp Leu Asn
            100                 105                 110
Glu Gln Leu His His Pro Asp Gln Leu Pro Asp Lys Glu Leu Glu Gln
        115                 120                 125
Leu Ala Leu Asp Leu Val Asp Ser Met Asp Lys Leu Gln Leu Gln Leu
    130                 135                 140
Val Pro Ser Val Ser Leu Leu Thr Asp Gly Phe Phe Gly Lys Arg Gly
145                 150                 155                 160
Val Leu Gln Ala His Gly Val Ser Val Leu Thr Val Cys Leu Glu Ala
                165                 170                 175
Ile Ser Thr Val Arg Arg Ser Gly Pro Ser Ser Lys Arg Lys Trp Gln
            180                 185                 190
Thr Asp Trp Arg Lys Thr Val Pro Ser Leu Tyr Gln Arg Ser Val Cys
        195                 200                 205
Gly Ala Ala Phe Ser Pro Ser Gly Ser Pro Ser Cys Trp Thr Pro Ser
    210                 215                 220
Ser Ala Met Ala Ser Ser Pro Thr Ile Arg Pro Thr Thr Pro Thr Ala
225                 230                 235                 240
Thr Thr Val His Leu Ser Ser Ser Ala Thr Thr Thr Gly Pro Ser Gly
                245                 250                 255
Thr Ser Gly Pro Ile Cys Thr Pro Thr Ser Ser Ser Thr Ser Ala Ala
            260                 265                 270
Pro Cys Pro Arg Pro Ser Asp Ser Ala Arg Ala Ala Pro Pro Pro Arg
        275                 280                 285
Ser Pro Thr Ala Pro Thr Ser Thr Ser Ser Ser Thr Ser Pro Arg Ser
```

```
    290                 295                 300
Arg Ser Trp Gln Ser Ser Arg Arg His Trp Ala Arg Ala Pro Ser Arg
305                 310                 315                 320
Lys Pro Ala Ala
```

<210> 38409
<211> 183
<212> PRT
<213> A.fumigatus

<400> 38409

```
Ile Ile Pro Gly Arg Arg Ser Ala Ala Asn Pro Ser Trp Thr Ser Ala
1               5                   10                  15
Ala Gly Pro Glu His Ser Trp Pro Arg Cys Ser Gly Arg Ile Pro Thr
            20                  25                  30
Leu Arg Gly Ser Val Met Asp Ile Gln Ser Val Thr Glu Leu Ile Thr
        35                  40                  45
Pro Glu Phe Arg Glu Pro His Gly Arg Phe Ser Asp Ile Gly Ser Arg
    50                  55                  60
Val Gln Gln Leu Val Val Gly Asp Phe Thr Lys Gln Ile Pro Pro Ser
65                  70                  75                  80
Ala Val Tyr Thr Met Lys Trp Cys Leu His Asp Trp Val Asp Asp Asp
                85                  90                  95
Val Leu Thr Ile Leu Lys Asn Val Arg Arg Ser Ile Val Pro Ser Ser
            100                 105                 110
Val Ser Arg Phe Leu Val Val Glu Ser Ile Lys Ser Pro Gly Arg Ser
        115                 120                 125
Gly Arg Leu Pro Arg Tyr Gly Asp Leu Ile Met Met Ile Thr Cys Asn
    130                 135                 140
Gly Lys Glu Arg Ser Leu Lys Asp Trp Lys Arg Leu Gly Glu Leu Ala
145                 150                 155                 160
Gly Trp Lys Leu Tyr Gln Val His Arg Val Arg Arg Ala Trp Pro Cys
                165                 170                 175
Ile Ile Asp Phe Arg Pro Met
            180
```

<210> 38410
<211> 193
<212> PRT
<213> A.fumigatus

<400> 38410

```
Gln Gly Gln Lys Pro Gln Ile Leu Tyr Ala Pro Thr Leu Ala Asn Phe
1               5                   10                  15
Thr Asn His Tyr Gln Phe Leu Asp Cys Ser Thr Leu Val Arg Met Ser
            20                  25                  30
Glu Arg Pro Ser Asp Leu Val Val Asn Arg Leu Val Leu Phe Val Val
        35                  40                  45
Lys Gly Glu Ser Ser Arg Arg Ile Ser Lys Ser Pro Leu Met Gln Ser
    50                  55                  60
Thr Thr Gly Thr Ala Thr Ser Thr His Asn Thr Val Lys Pro Leu Ile
65                  70                  75                  80
Leu Leu Glu Glu Leu Gly Val Pro His Asp Ile Tyr Val Val Glu Lys
                85                  90                  95
Val Ser Ala Pro Trp Phe Ser Glu Ile Asn Pro His Lys Met Val Pro
```

```
            100                 105                 110
Ala Ile Leu Asp Arg Ser Pro Asp Gly Arg Asp Thr Leu Arg Ala Trp
        115                 120                 125
Glu Ser Thr Ser Thr Leu Met Tyr Ile Ala Asp Ala Tyr Asp Lys Asp
    130                 135                 140
Gly Thr Phe Gly Gly Arg Asn Val Gln Glu Arg Ser Glu Ile Asn Asn
145                 150                 155                 160
Trp Leu Thr Leu His Thr Ala Ala Leu Gly Pro Thr Ala Lys Tyr Trp
                165                 170                 175
Leu Tyr Phe Tyr Lys Leu His Pro Glu Lys Leu Pro Lys Thr Ile Glu
            180                 185                 190
Lys
```

<210> 38411
<211> 192
<212> PRT
<213> A.fumigatus

<400> 38411

```
Asp Ala Leu Asp Arg Arg Arg Ser Ala Ser Gly Arg Pro Thr Gly Gly
1               5                   10                  15
Lys Arg Ser Pro Ala Cys Ile Asn Ala Arg Ser Ala Val Arg His Ser
            20                  25                  30
Ala Arg Ala Ala Arg Pro Ala Ala Gly His Pro Arg Gln Gln Trp His
        35                  40                  45
Leu Arg Leu Gln Ser Gly Arg Arg His Leu Gln Gln Gln Pro Cys Ile
    50                  55                  60
Ser Pro Pro Leu Pro Arg Pro Leu Asp Pro Val Ala Pro Leu Gly Arg
65                  70                  75                  80
Ser Val Pro Gln Arg Val Leu Arg Arg Gln Pro Arg His Ala Pro Gly
                85                  90                  95
Arg Pro Thr Arg Arg Glu Pro His Arg Arg Pro Asp Arg Leu Arg His
            100                 105                 110
Arg Pro Arg Pro Leu Arg Val Pro Arg Gln Gly Ala Glu Ala Gly Lys
        115                 120                 125
Val Pro Glu Asp Thr Gly Arg Gly Arg Arg Arg Ala Ser Pro Arg Leu
    130                 135                 140
Asp Ser Arg Leu Ser Leu Gly Gly Asp Arg Gln Arg Thr His Pro Gly
145                 150                 155                 160
His Arg Arg Arg Val Arg Ser Ile Pro Gly Leu Gly Ala Pro Gly Ala
                165                 170                 175
Ser Pro Pro Ser Gly Gly Val Ser Trp Ile Ser Ser Arg Ser Leu Ser
            180                 185                 190
```

<210> 38412
<211> 143
<212> PRT
<213> A.fumigatus

<400> 38412

```
Leu Cys Ile Arg Arg Arg Trp Gly Pro Arg Pro Ser Thr Gly Cys Ile
1               5                   10                  15
Ser Thr Ser Cys Thr Arg Arg Ser Cys Pro Lys Gln Ser Arg Ser Asn
            20                  25                  30
Ser Gly Leu Ser His Leu Pro Gly Asn Ser Leu Ser Asn Met Gly Cys
```

```
        35                  40                  45
Arg Leu Arg Ser Asn Ile Thr Val Gln Tyr Asp Ile Leu Glu Arg Arg
    50                  55                  60
Leu Asn Glu Pro Gly Gln Gln Tyr Leu Ala Leu Lys Asp Arg Pro Thr
65                  70                  75                  80
Ile Ala Asp Ile Ala Thr Leu Pro Phe Ala Met Lys Ser Thr Ala Glu
                85                  90                  95
Leu Phe Gly Leu Glu Phe Glu Lys Trp Pro Lys Leu Gln Glu Trp Ser
            100                 105                 110
Val Arg Met Gly Glu Arg Glu Ala Val Lys Arg Ala Trp Gln Arg Val
        115                 120                 125
Ala Gly Phe Gly His Gly Glu Lys Glu Tyr Gly Met Leu Glu Ala
    130                 135                 140

<210> 38413
<211> 213
<212> PRT
<213> A.fumigatus

<400> 38413
Ala Gly Ser Pro Pro Ser Thr Trp Ser Phe Arg Thr Asp Ser Val Ser
1               5                   10                  15
Arg Gly Tyr Leu Asn Ser Lys Thr Leu Trp Thr Val Val Glu Ala Gln
            20                  25                  30
Val Ala Asp Arg Leu Ala Glu Asn Gly Pro Gln Pro Val Ser Thr Leu
        35                  40                  45
Gly Leu Arg Cys Gly Ile Gln Pro Glu Arg Leu Ala Gln Leu Leu Asp
    50                  55                  60
Thr Leu Val Ser Asn Gly Ile Phe Ala Tyr Asn Pro Ala Asp Asp Thr
65                  70                  75                  80
Tyr Ser Asn Asn Arg Ala Ser Leu Leu Leu Cys His Asp His Trp Thr
                85                  90                  95
Gln Trp His Leu Trp Ala Asp Leu Tyr Pro Asn Glu Phe Phe Asp Val
            100                 105                 110
Ser Arg Ala Met Pro Gln Ala Val Arg Leu Gly Glu Ser Arg Thr Ala
        115                 120                 125
Ala Gln Ile Ala Tyr Gly Thr Asp Leu Asp Leu Phe Glu Tyr Leu Ala
    130                 135                 140
Lys Glu Gln Lys Leu Ala Lys Phe Gln Lys Thr Leu Gly Ala Gly Ala
145                 150                 155                 160
Val Ala Gln Ala Arg Gly Leu Thr Val Asp Tyr Pro Trp Glu Glu Ile
                165                 170                 175
Gly Ser Glu Pro Ile Leu Asp Ile Gly Gly Gly Ser Gly Ala Phe Leu
            180                 185                 190
Ala Ser Val Leu Arg Ala His Pro His Pro Pro Gly Glu Cys His Gly
        195                 200                 205
Tyr Pro Val Gly His
    210

<210> 38414
<211> 211
<212> PRT
<213> A.fumigatus

<400> 38414
Val Asp Ile Asp Ala Phe Arg Ala Val Cys Leu Leu Leu Leu Ser Pro
```

```
1               5                   10                  15
Val Tyr His Tyr Arg His Val Lys Ser Ser Ser Leu Leu Thr Ser Thr
            20                  25                  30
Ile Met Ser Arg Pro Ser Ile Glu Glu Ser Lys Gln Glu Leu Ser Ser
        35                  40                  45
Ser Pro Asn Asp Ser Val Met Gly Lys Asp Pro Ala Pro Glu Glu Glu
    50                  55                  60
Met Gln Tyr Pro Ser Gly Phe Ala Leu Ser Val Ile Met Ala Gly Leu
65                  70                  75                  80
Leu Ala Ala Ile Phe Leu Ile Ser Leu Asp Thr Thr Ile Val Ser Thr
                85                  90                  95
Ala Ile Pro Arg Ile Thr Asp Glu Phe His Thr Val Ala Asp Ile Gly
            100                 105                 110
Trp Tyr Gly Ser Ala Phe Phe Leu Thr Leu Ala Ser Phe Gln Gly Thr
        115                 120                 125
Trp Gly Lys Ile Tyr Arg Tyr Phe Pro Leu Lys Leu Ser Phe Leu Ala
    130                 135                 140
Ala Val Leu Leu Phe Glu Val Gly Ser Leu Ile Cys Ala Val Ala Lys
145                 150                 155                 160
Asn Ser Val Thr Leu Ile Val Gly Arg Ala Ile Ala Gly Ile Gly Ala
                165                 170                 175
Ala Gly Ile Ser Ser Gly Ser Tyr Thr Ile Leu Ala Phe Ser Val His
            180                 185                 190
Pro Arg Arg Arg Ala Ala Met Thr Ser Tyr Pro Arg Gly Trp Lys Glu
        195                 200                 205
Glu Arg Ser
    210
```

<210> 38415
<211> 240
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (63),(69),(71)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38415

```
Ala Val Ala Lys Ile Asp Arg Glu Thr Ile Pro Trp Ser Pro Cys Leu
1               5                   10                  15
Gln Asn Ala Lys Ser Met Gln His Gly Glu Ser Ser Val Val Lys Thr
            20                  25                  30
Leu Met Gly Gly Ile Trp Tyr Phe Ala Tyr Gly Ser Asn Leu Arg Leu
        35                  40                  45
Ser Val Leu Glu Asn Arg Cys Ile Lys Ala Met Asp Ile Lys Xaa Val
    50                  55                  60
Ile Val Pro Arg Xaa Tyr Xaa Thr Phe Asp Ile Phe Gly Ile Pro Tyr
65                  70                  75                  80
Ala Glu Pro Ser Phe Ala Ser Val Ala Pro Phe Ala Arg Glu Lys Lys
                85                  90                  95
Thr Thr Leu Arg Leu Gly Asp Ser Pro Ala Ser Arg Asp Val Pro Pro
            100                 105                 110
Val Gln Gly Leu Ala Tyr Leu Leu Asn Pro Arg Asp Tyr Arg Gln Leu
        115                 120                 125
Val Ile Ser Glu Gly Gly Gly Val Ala Tyr Asp Glu Val Glu Val His
```

```
    130                 135                 140
Ala Ser Ile Leu Asp Lys Asp Gly Lys Pro Asp Pro Gly Ala Thr Leu
145                 150                 155                 160
Ile Ala Arg Thr Leu Gln Ala Lys Tyr Pro Trp Arg Pro Asn Gly Ala
                165                 170                 175
Pro Ser Ala Arg Tyr Leu Val Ser Gly Pro Gly Thr Glu Ser Cys Ser
            180                 185                 190
Ala Ile Leu Ile Gly Asn Arg Ala Ser Ser Arg Arg Gly Ala Asn Arg
        195                 200                 205
Met Ser Arg Ser Arg His Thr Ala Thr Ile Leu Ile Pro Tyr Arg Pro
    210                 215                 220
Met Ser Arg Arg His Pro Ser Met Pro Arg Trp Glu Val Phe Phe Ser
225                 230                 235                 240

<210> 38416
<211> 137
<212> PRT
<213> A.fumigatus

<400> 38416
Asn Pro Gly Gly Ile Leu Leu Ile Ser Ser Arg Pro Met Leu Ser Trp
1               5                   10                  15
Thr Leu Lys Arg Ser Thr Ser Thr Thr Arg Thr Gly Ser Thr Glu Arg
            20                  25                  30
Asn Thr Ile Leu Asp Gly Ser Ser Val Ser Thr Ser Leu Met Tyr Gly
        35                  40                  45
Arg Arg Pro Gln Phe Leu Val Ser Thr Ser Leu Thr Leu Gln Val Arg
    50                  55                  60
His Asn Met Trp Arg Phe Gly Phe Gly Pro Arg Gln Cys Leu Gly Lys
65                  70                  75                  80
His Ile Gly Glu Arg Met Leu Lys Ala Ile Val Ala Glu Ile Ile Arg
                85                  90                  95
Gln Tyr Val Ile Ser Ile Ser Ala Asp Ser Ala Leu Lys Asn Asp Leu
            100                 105                 110
Gln Glu Asp Ser Trp Val Gly Leu Pro Ala Thr Arg Ile Gln Cys Val
        115                 120                 125
Pro Val Gly Arg Glu Val Glu Lys Asn
    130                 135

<210> 38417
<211> 812
<212> PRT
<213> A.fumigatus

<400> 38417
Phe Pro Gln Arg Pro Val Ser Ser Leu Leu Ser His Phe Glu Asn Leu
1               5                   10                  15
Ser Leu Arg Arg Ser Pro Ser Ala Phe Thr Ala Thr Ser Pro His Asp
            20                  25                  30
Ser Thr Pro Phe Leu Arg Thr Pro Glu Pro Val Asp Glu Val Arg Ser
        35                  40                  45
Ala Arg Ala Ser Leu Asp Leu Pro Arg Ala Gln Ser Pro Trp Asn Ala
    50                  55                  60
Thr Gly Lys Pro Gln Asn Ala Gln Arg Tyr Asp Arg Thr Asn Gly Gly
65                  70                  75                  80
Phe Ser Arg Arg Ser Gly Ser Pro Gly Arg Ser Pro Gly Arg Arg Gln
```

```
                85                  90                  95
Ser Arg Pro Met Ser Met Asn Phe His Ser Pro Pro Gln Leu Ala Pro
            100                 105                 110
Thr Leu Thr Val Asp Ser Pro Arg Ser Pro Pro Arg Gly Phe Gly Ser
        115                 120                 125
Gln Asn His Thr Glu Arg Thr Ile Asn Ser Arg Met Ser Arg Ser Pro
    130                 135                 140
Pro Asp Pro Ser Arg Gly Ser Leu Pro Pro Pro Thr Asn Arg Pro Thr
145                 150                 155                 160
Thr Pro Ser Ser Ser Thr Phe Gln His Leu Pro Gly His Leu Ser Pro
                165                 170                 175
Ala His Ser His Ser Gly Ser Phe Ile Gly Glu Ser Pro Pro Asp Arg
            180                 185                 190
Lys Gln Lys Ser Ser Ser Leu Pro Pro Pro Ile Asp Arg Ala Glu Lys
        195                 200                 205
Pro Lys Val Pro Ala Lys Pro Ala Ala Leu Ala Ser Leu Glu Gly Ala
    210                 215                 220
Thr Leu Ala Leu Lys Pro Glu Lys Thr Thr Ser Glu Asp Arg Ile Ser
225                 230                 235                 240
Pro Phe Ser Thr Pro Pro Gly Ser Pro Glu Lys Pro Ser Val Lys Pro
                245                 250                 255
Ser Ser Cys Gly Arg Pro Gln Met Pro Arg Ser Pro Ser Arg Pro Val
            260                 265                 270
Thr Glu Pro Pro Ser Arg Gln Ser Phe Asp Asp Arg Gly Pro Val Pro
        275                 280                 285
Ser Ala His Ala Leu Arg Asp Ala Arg Glu Leu Gly Phe Ser Arg Arg
    290                 295                 300
Arg Pro Ile Pro Glu Pro Thr Arg Asp Met Lys Pro Leu Met Val Gln
305                 310                 315                 320
Val Pro Pro His Ser Met Lys Gln Thr Glu Pro Leu Ser Ala Ala Pro
                325                 330                 335
Leu Ser Ala Arg Arg Leu Gln Ala Thr Asp Ala Pro Thr Glu Pro Pro
            340                 345                 350
Ser Leu Pro Pro Arg His Ser Ser Leu Ala Arg Arg Ser Gly Ala Ser
        355                 360                 365
Pro Ser Arg Pro Ser Pro His Leu Glu Gly Ser Ser His Pro Glu Pro
    370                 375                 380
Ser Pro Arg Pro Gln Ser Phe Gln Pro Pro Pro Arg Glu Asn Gln Thr
385                 390                 395                 400
Pro Leu Gln Ile His Arg Gln Pro Ser Phe Ser Arg Asp Ala Lys Pro
                405                 410                 415
Gly Gln Ala Ser Ser Val Pro Glu Arg Gln Leu Ala Arg Ala Asp Thr
            420                 425                 430
Phe Gly Gln Asp Pro Val Asp Glu Pro Ala Ile Ser Arg Thr Asp Tyr
        435                 440                 445
Pro Asp Ala Ser Thr Thr Asn Arg Arg Pro Pro Leu Leu Lys Asn Gly
    450                 455                 460
Pro Arg Glu Ile His Thr Arg Tyr Asp Thr Arg Leu Met Asp Val Cys
465                 470                 475                 480
Gly Arg His Val Cys Thr Thr Gly Tyr Leu Thr Arg Val Trp Asp Leu
                485                 490                 495
Thr Asn Gly Glu Gln Ile Met Ser Leu Ser His Gly Glu Thr Val Lys
            500                 505                 510
Ser Leu Ser Ile Ala Phe Lys Pro Gly Thr Gly Leu Glu Asp Glu Gly
        515                 520                 525
Gln Arg Leu Trp Leu Gly Met Ser Thr Gly Glu Ile His Glu Val Asp
```

```
    530                 535                 540
Ile Ser Thr Arg Ser Ile Val Ala Thr Arg Phe Tyr Pro Ser Arg Arg
545                 550                 555                 560
Glu Val Ile Lys Ile Leu Arg His Lys Lys Glu Met Trp Thr Leu Asp
                565                 570                 575
Asp Glu Gly Arg Leu Leu Val Trp Pro Pro Asp Glu Ser Gly Thr Pro
            580                 585                 590
Asn Leu Gln Tyr Ser Tyr His Asn Pro Tyr Asp Arg Val Ala Arg Gly
        595                 600                 605
His Thr Phe Ser Leu Val Val Gly Asp Thr Leu Trp Leu Ala Thr Gly
    610                 615                 620
Lys Glu Val His Val Tyr Arg Pro Asn Ala Arg Asp Asp Val Ser Phe
625                 630                 635                 640
Lys Val Leu Lys Lys Pro Leu Gly Ser Gln His Thr Gly Asp Val Thr
                645                 650                 655
Ser Gly Ile Tyr Thr Thr Arg Asp Gly Gly Arg Val Tyr Met Gly His
            660                 665                 670
Ala Asp Gly Lys Val Thr Val Tyr Ser Ser Thr Asp Tyr Ala Cys Leu
        675                 680                 685
Ala Val Val Asn Val Ser Val Tyr Lys Ile Asn Cys Leu Gly Val Val
    690                 695                 700
Gly Asp Tyr Leu Trp Ala Ala Tyr Lys Thr Gly Met Ile Tyr Val Tyr
705                 710                 715                 720
Asp Thr Arg Thr Asn Pro Trp Ile Val Lys Lys Asp Trp Arg Ala His
                725                 730                 735
Asp Gly Pro Val Ser Ser Phe Leu Leu Asp Phe Ser Ser Val Trp Thr
            740                 745                 750
Met Asn Arg Leu Gln Val Thr Ser Leu Gly Asp Asp Asn Cys Ile Arg
        755                 760                 765
Leu Trp Asp Gly Met Leu Glu Asp Asp Trp Leu Gly Lys Leu Ile Phe
    770                 775                 780
Cys Arg Ser Asp Gly Arg Lys Ala Lys Thr Asn Val Asn Arg Asn Ser
785                 790                 795                 800
His Ala Glu Gln Arg Cys Arg Ile Leu Gln Val Pro
                805                 810
```

<210> 38418
<211> 106
<212> PRT
<213> A.fumigatus

<400> 38418

```
Val Glu Val Trp Ala Ala Ser Arg Val Ser Phe Ala Asp Ser Ser Ile
1               5                   10                  15
Glu Ser Leu Leu Leu Gly Ser Lys Lys Lys Asp Gly Gly Glu Lys Glu
            20                  25                  30
His Met Ser Arg Gln Tyr Arg Val Trp Met Glu His Leu Thr Arg Cys
        35                  40                  45
Ile Asn Asp Cys Met Pro Leu Glu Glu Ser Tyr Val Leu Leu His Ser
    50                  55                  60
Ala Asn Leu Ile Gly Leu Phe Thr Cys Val Phe Val Lys His Lys Glu
65                  70                  75                  80
Arg Gln Arg Ile Lys Asn Ile Gly Ala Ala Glu Val Lys Arg Gly Met
                85                  90                  95
Gly Gly Leu His Gly Asn Lys Val Arg Ile
            100                 105
```

<210> 38419
<211> 236
<212> PRT
<213> A.fumigatus

<400> 38419
Gly Thr Ala Leu Ile Leu Val Arg Leu Leu Ile Ala Gln Gly Ala Leu
1 5 10 15
Ile Leu Arg Phe Ile Leu Asp Asp Ser Ser Leu Cys Phe Val Asn Cys
20 25 30
His Leu Ala Ala Gly Gln Ser Gln Thr Ala His Arg Asn Asn Asp Ile
35 40 45
Ala Ala Ile Leu Glu Ser Glu Val Leu Pro Val Glu Asn Ser Leu Thr
50 55 60
Thr Arg Ala Asn His Phe Val Ser Gly Gly Asp Gly Thr Met Ile Met
65 70 75 80
Asp His Glu Ile Cys Ile Leu Asn Gly Asp Leu Asn Tyr Arg Ile Asp
85 90 95
Ser Ile Pro Arg Asn Val Ile Ile Glu Asp Ile Arg Asn Asn Asn Leu
100 105 110
Ala Lys Leu Leu Glu Arg Asp Gln Leu Leu Ala Ser Gln Arg Lys Asn
115 120 125
Pro Gly Phe Arg Leu Arg Ser Phe Thr Glu Ala Pro Ile Thr Phe Ala
130 135 140
Pro Thr Tyr Lys Tyr Asp Val Gly Thr Asp Glu Tyr Asp Ser Ser Glu
145 150 155 160
Lys Lys Arg Ser Pro Ala Trp Cys Asp Arg Val Leu Tyr Arg Gly Leu
165 170 175
Gly Arg Ile Lys Gln Leu Asp Tyr Arg Arg His Glu Val Arg Ala Ser
180 185 190
Asp His Arg Pro Val Ser Ala Ser Phe Lys Leu Arg Val Lys Thr Val
195 200 205
Leu Pro Gln Glu Arg Ala Ala Val Trp Glu Ser Cys Gln Gln Glu Phe
210 215 220
Gln Lys Glu Lys Arg Arg Leu Ala Ser Glu Ala Arg
225 230 235

<210> 38420
<211> 87
<212> PRT
<213> A.fumigatus

<400> 38420
Tyr Ser Ala Gly Pro Met Asp Glu Lys Arg Lys Leu Thr Ser Thr Glu
1 5 10 15
Thr Arg Met Gln Ser Arg Asp Val Glu Phe Cys Lys Phe Arg Glu Ile
20 25 30
Ser Ala Ala Ile Val Thr Trp Asn Ala Gly Ala Ser Thr Pro Gly Ser
35 40 45
Val Arg Ser Ser Asn Phe Ile Gln Glu Ala Ile His Pro Glu Asn Pro
50 55 60
Pro Glu Ile Leu Val Phe Gly Phe Gln Glu Leu Val Asp Leu Glu Asn
65 70 75 80
Lys Lys Ile Thr Ala Ser Glu
85

<210> 38421
<211> 69
<212> PRT
<213> A.fumigatus

<400> 38421
Gln Ala Arg Leu Leu Leu Gly Thr Cys His Arg Arg Arg Phe Cys Leu
1 5 10 15
Leu Val Leu Asn Gln Ile Lys Asn Asn Val Pro Leu Gly Thr Leu Phe
20 25 30
His Val Lys Leu Met Ile Arg Ser Gly Leu Trp Asn Ile Leu Phe Asn
35 40 45
Gln Ala Phe Glu Thr Ile Gly Phe Ser Arg Phe Arg Met Tyr Lys Ser
50 55 60
His Ser Met Arg Val
65

<210> 38422
<211> 182
<212> PRT
<213> A.fumigatus

<400> 38422
Leu Ile Trp Thr Phe Ile Ile Pro Arg Lys Gly Asn Met Ser Thr Val
1 5 10 15
Ile Leu Gly Gly Gly Ile Ile Gly Ser Ser Ile Ala Tyr Tyr Leu Ser
20 25 30
Glu Asn Gly Ser Ser Asp Glu Ile His Ile Val Glu Ala Ser Ser Gln
35 40 45
Leu Phe Ser Ala Ala Ser Gly Tyr Ala Ala Gly Phe Leu Ala Lys Asp
50 55 60
Trp Phe Thr Pro Ala Leu Ala Ser Leu Gly Glu Leu Ser Phe Asn Leu
65 70 75 80
His Gln Ser Leu Ala Asp Lys Asn Gly Gly Arg Gln Glu Trp Gly Tyr
85 90 95
Met Lys Ser Thr Ala Leu Ser Leu Asp Phe Ser Lys Asn Asn Asn Lys
100 105 110
Arg Gly Ala Ser Gly Asp Asp Trp Leu Ser Thr Gly Ala Ser Arg Ala
115 120 125
Glu Ala Ala Thr Ser Ser Ser Ser Pro Val His Val Glu Val Pro Ala
130 135 140
Trp Leu Thr Lys Gln Lys Lys Gly Ile Ile Glu Lys Ile Ser Asp Asp
145 150 155 160
Asp Thr Val Ala Gln Val Leu Val Met Ile Ile Ala Asn Ser Ala Thr
165 170 175
Trp Arg Thr Asp Gly Ile
180

<210> 38423
<211> 298
<212> PRT
<213> A.fumigatus

<400> 38423
Leu Leu Arg Thr Leu Pro His Gly Glu Leu Thr Ala Phe Arg Asp Pro

```
1               5                   10                  15
Leu Arg Leu Ala Arg Phe Leu Met Glu Ser Ser Leu Ser Arg Gly Val
            20                  25                  30
Lys Leu His Asn Pro Ala Lys Ala Thr Ser Val Ile Thr Asp Gln Val
        35                  40                  45
Ser Gly Tyr Ile Thr Gly Val Lys Val Met Asn Leu Asp Ala Gln Thr
    50                  55                  60
Glu Cys Thr Leu Pro Cys Ala Asn Ile Ile Ile Cys Ala Gly Pro Trp
65                  70                  75                  80
Thr Pro Gln Val Tyr His Glu Leu Phe Pro Leu Ser Arg Leu Pro Ile
                85                  90                  95
Pro Ile Thr Pro Leu Ala Gly Tyr Ser Leu Val Val Arg Ser Pro Arg
            100                 105                 110
His Thr Leu Gln Asp Glu Arg Val Thr Tyr Ala Asn Arg Ser His Ala
        115                 120                 125
Val Phe Thr Thr His Pro Asp Ser Cys Gly Phe Cys Pro Glu Ile Phe
    130                 135                 140
Ser Arg Gln Gly Gly Glu Ile Tyr Ile Ala Gly Leu Asn Asp Thr His
145                 150                 155                 160
Ile Pro Leu Pro Ala Gln Ala Gly Asp Ser Cys Lys Leu Met Asp Gln
                165                 170                 175
Asn Glu Met Arg Arg Leu Lys Lys Ala Ala Val His Leu Met Gly Ala
            180                 185                 190
Gln Glu Glu Gly Asn Val Glu Ser Thr Asp Gly Ile Ala Asn Arg Asn
        195                 200                 205
Asp Leu Glu Ile Leu Arg Glu Gly Leu Cys Phe Arg Pro Val Ser Ala
    210                 215                 220
His Gly Val Pro Phe Val Ala Arg Ile Asp Asp His Leu Leu Gly Gly
225                 230                 235                 240
Pro Lys Thr Gly Ser Ile Asn Arg Cys Glu Asn Gly Ile Thr Arg Gly
                245                 250                 255
Gly Val Phe Val Ala Ser Gly His Gly Pro Trp Gly Ile Ser Leu Ser
            260                 265                 270
Leu Gly Thr Gly Lys Val Ile Ser Gln Met Val Glu Gly Val Glu Pro
        275                 280                 285
Asp Val Asp Val Gly Gly Leu Ala Ile Val
    290                 295
```

<210> 38424
<211> 134
<212> PRT
<213> A.fumigatus

<400> 38424

```
Ser Phe Leu Pro Asn Gln Val Thr Pro Asp Ser Phe Tyr Cys Arg Leu
1               5                   10                  15
Ile Thr Met Ala Asn Tyr Leu Ala Ser Ile Phe Gly Thr Glu Gln Asp
            20                  25                  30
Lys Val Asn Cys Ser Phe Tyr Tyr Lys Ile Gly Ala Cys Arg His Gly
        35                  40                  45
Asp Arg Cys Ser Arg Lys His Val Lys Pro Ser Tyr Ser Gln Thr Ile
    50                  55                  60
Leu Met Pro Asn Met Tyr Gln Asn Pro Ala Tyr Asp Pro Lys Asn Lys
65                  70                  75                  80
Met Asn Pro Ser Gln Leu Gln Asn His Phe Asp Ala Phe Tyr Glu Asp
                85                  90                  95
```

```
Val Trp Cys Glu Met Cys Lys Tyr Gly Glu Leu Glu Glu Leu Val Val
            100                 105                 110
Cys Asp Asn Asn Asn Asp Arg Lys Cys Tyr Val Ala Asn Gln Ala Leu
        115                 120                 125
Glu Arg Thr Ile Ala Asn
    130
```

<210> 38425
<211> 113
<212> PRT
<213> A.fumigatus

<400> 38425

```
Val His Asn Ala Asp Leu Ile Gly Asn Val Tyr Ala Arg Phe Lys Tyr
1               5                   10                  15
Glu Glu Asp Ala Gln Ala Ala Cys Asp Ala Leu Asn Ser Arg Trp Tyr
            20                  25                  30
Ala Ala Arg Pro Ile Tyr Cys Glu Leu Ser Pro Val Thr Asp Phe Arg
        35                  40                  45
Glu Ala Cys Cys Arg Leu Asn Ser Gly Glu Gly Cys Val Arg Gly Gly
    50                  55                  60
Phe Cys Asn Phe Ile His Arg Lys Asp Pro Ser Pro Glu Leu Asp Arg
65                  70                  75                  80
Glu Leu Arg Leu Ser Thr Lys Lys Trp Leu Lys Glu Arg Gly Arg Asp
                85                  90                  95
Pro Arg Ser Ala Ser Arg Ser Pro Ser Pro Glu Pro Thr Arg Arg Arg
            100                 105                 110
Tyr
```

<210> 38426
<211> 66
<212> PRT
<213> A.fumigatus

<400> 38426

```
Leu Arg Lys Ile Tyr Phe Ser Thr Gln Ala Leu Leu Asp Phe Thr His
1               5                   10                  15
Ile Leu Phe Phe Val Phe Leu Ser Glu Thr Thr Leu Leu Tyr Tyr Val
            20                  25                  30
Arg His His Ile Ser Thr Leu Val Glu Met Ala Asn Tyr Leu Tyr Ser
        35                  40                  45
Ser Thr His Val Thr Leu Ser Trp Pro Val Lys Ile Leu Pro Arg Gly
    50                  55                  60
Leu Gly
65
```

<210> 38427
<211> 61
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (54),(55),(57),(58),(60),(61)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38427
Asp Phe Tyr Ser Leu Phe Cys Leu Leu Asp Leu Ser Ala Ala Val Asp
1 5 10 15
Val Tyr Ser Asp Trp Val Asp Ala Cys Asp Ala Val Ala Lys Asp Thr
20 25 30
Ala Ser Lys Phe Asp Gly Asp Asp Asp Val Leu Ala Val His Ser Gln
35 40 45
Glu His Ser Phe Pro Xaa Xaa Leu Xaa Xaa Gln Xaa Xaa
50 55 60

<210> 38428
<211> 69
<212> PRT
<213> A.fumigatus

<400> 38428
Arg Leu Val Gly Gly Ser Ala Thr Leu Ala Val Glu Thr Leu Lys Ala
1 5 10 15
Lys Gly Val Pro Glu Asp Arg Ile Leu Phe Leu Asn Leu Ile Ala Ser
20 25 30
Pro Ser Gly Val Ala Asp Phe Ala Glu Arg Phe Pro Asn Leu Arg Val
35 40 45
Val Thr Ala Phe Ile Asp Gln Gly Leu Asn Glu Lys Lys Leu Val Glu
50 55 60
Ile Ser Pro Ser Gly
65

<210> 38429
<211> 143
<212> PRT
<213> A.fumigatus

<400> 38429
Ala Leu Lys Ser Tyr Gly Glu Ala Tyr Pro Leu Thr Asn Cys Ser Met
1 5 10 15
Ile Arg Asp Lys Asn Thr Ser Arg Ala Asp Phe Ile Phe Tyr Ser Asn
20 25 30
Arg Ile Ile Arg Leu Leu Val Glu Glu Gly Leu Asn His Leu Pro Val
35 40 45
Val Glu Arg Ser Val Thr Thr Pro Val Gly Arg Glu Tyr Leu Gly Val
50 55 60
Arg Phe Glu Gly Lys Ile Cys Gly Val Ser Ile Met Arg Ala Gly Glu
65 70 75 80
Ala Met Glu Gln Gly Leu Arg Asp Cys Cys Arg Ser Val Arg Ile Gly
85 90 95
Lys Ile Leu Ile Gln Arg Asp Glu Glu Thr Cys Lys Pro Lys Leu Phe
100 105 110
Tyr Glu Lys Leu Pro Leu Asp Ile Ala Asn Arg Trp Val Leu Leu Leu
115 120 125
Asp Pro Met Phe Ala Thr Gly Ala Ser Gly Pro Val Phe Ser Ile
130 135 140

<210> 38430
<211> 62
<212> PRT

<213> A.fumigatus

<400> 38430
Ser Gly Asn Arg Asn Lys Arg Leu Ser Lys Gly Lys Lys Gly Val Lys
1 5 10 15
Lys Arg Thr Val Asp Pro Phe Ser Arg Lys Asp Glu Tyr Ser Val Lys
20 25 30
Val Cys Arg Arg Gly Leu Cys Lys Ser Thr Ala Ala Asn Leu Tyr Gln
35 40 45
Ala Pro Ser Thr Phe Gln Ile Arg Glu Tyr Val Ala Arg Ile
50 55 60

<210> 38431
<211> 183
<212> PRT
<213> A.fumigatus

<400> 38431
Leu Asn Tyr Ser Val Gly Lys Thr Leu Val Asn Arg Thr Ser Gly Leu
1 5 10 15
Lys Asn Ala Asn Asp Ser Leu Lys Gly Arg Ile Phe Glu Val Ser Leu
20 25 30
Ala Asp Leu Gln Asn Asp Glu Asp His Ala Phe Arg Lys Val Lys Leu
35 40 45
Arg Val Asp Glu Val Gln Gly Lys Asn Cys Leu Thr Asn Phe His Gly
50 55 60
Leu Asp Phe Thr Thr Asp Lys Leu Arg Ser Leu Val Arg Lys Trp Gln
65 70 75 80
Ser Leu Ile Glu Ala Asn Val Thr Val Lys Thr Thr Asp Asp Tyr Leu
85 90 95
Leu Arg Leu Phe Ala Ile Ala Phe Thr Lys Arg Arg Pro Asn Gln Ile
100 105 110
Lys Lys Thr Thr Tyr Ala Arg Ser Ser Gln Ile Arg Ala Ile Arg Lys
115 120 125
Lys Met Ile Glu Ile Met Gln Arg Glu Ala Ala Ser Cys Ser Leu Ala
130 135 140
Gln Leu Thr His Lys Leu Ile Pro Glu Val Ile Gly Arg Glu Ile Glu
145 150 155 160
Lys Ala Thr Gln Gly Ile Tyr Pro Leu Gln Asn Val Cys Asp Pro Val
165 170 175
Ile Leu Thr Arg Asp Glu Asp
180

<210> 38432
<211> 435
<212> PRT
<213> A.fumigatus

<400> 38432
Ser Arg Lys Gln Lys Gly Gly Leu Glu Glu Gln Leu Gly Asp Gly Leu
1 5 10 15
Asp Ser Ala Val Val Phe Thr Val Gly Leu Asn Leu Leu Leu Gln Leu
20 25 30
Leu Asp Asp Gly Gly Leu Gly Arg Asp Leu Glu Gly Leu Leu Gly Gly
35 40 45
His Val Arg Ala His Gly Gly Val Thr Gln Ser Leu Ser Leu His Asp

```
    50                  55                  60
Thr Leu His Val Gly Gly Pro Ala Glu Leu Ala Ser Thr Asp Ser Ala
65                  70                  75                  80
Arg Arg Ala Asp Glu Leu Met Gly His Asp Asp Leu Leu Asn Leu Val
                85                  90                  95
Ala Lys Asn Val Leu Glu Ala Leu Ser Gln Val Leu Val Leu Leu Leu
            100                 105                 110
Leu Leu Leu Ala Leu Ser Leu Leu Leu Leu Gly Leu Leu Glu Leu Glu
        115                 120                 125
Val Leu Gly Asp Val His Gln Leu Leu Ala Ile Glu Leu Leu Gln Leu
    130                 135                 140
Ser Glu Ser Val Leu Ile Asp Gly Val Asn Gln Glu Gln Asn Leu Lys
145                 150                 155                 160
Val Leu Leu Leu Glu Ala Val Lys Glu Gly Arg Leu Cys Asn Ser Leu
                165                 170                 175
Asp Arg Leu Ala Ser Asp Val Val Asp Leu Leu Leu Val Leu Arg His
            180                 185                 190
Ala Gly Asp Val Val Gly Glu Gly Gly Gly Leu Val Thr Arg Leu Gly
        195                 200                 205
Arg Leu Val Ala Glu Gln Leu Gly Lys Ser Leu Ala Val Leu Ser Ile
    210                 215                 220
Leu Val Asp Thr Glu Leu Asp Val Leu Ala Glu Gly Arg Val Glu Leu
225                 230                 235                 240
Val Glu Leu Leu Thr Ile Leu Gly Asn Leu Val Glu Glu Leu Gln Ser
                245                 250                 255
Leu Leu Asp Asn Val Leu Leu Asp Asp Leu His Asn Leu Val Leu Leu
            260                 265                 270
Glu Ser Leu Thr Arg Gln Val Glu Arg Gln Ile Leu Arg Val Asp Asn
        275                 280                 285
Thr Leu Asp Glu Ala Gln Pro Leu Gly Asp Glu Ile Gly Gly Val Ile
    290                 295                 300
Ser Asp Glu Asp Thr Thr Asp Val Glu Leu Asp Val Val Leu Ser Leu
305                 310                 315                 320
Leu Gly Leu Glu Glu Val Glu Arg Ser Thr Leu Gly Asp Val Lys Asp
                325                 330                 335
Ser Ala Glu Leu Glu Leu Thr Leu Asp Arg Glu Val Phe Asp Ser Lys
            340                 345                 350
Met Val Leu Pro Val Val Arg Glu Gly Leu Val Glu Gly Gly Ile Leu
        355                 360                 365
Leu Leu Gly Asp Ile Arg Arg Val Ala Gly Pro Asp Gly Leu Gly Leu
    370                 375                 380
Val Glu Leu Leu Leu Leu Asp Leu Ala Leu Leu His Ser Leu Gly Leu
385                 390                 395                 400
Leu Leu Leu Leu Leu Leu Leu Leu Leu Val Ile Asp Leu Leu Asp Leu
                405                 410                 415
Gly Leu Leu Leu Leu Ile Arg Leu His His Ala Thr Gly Arg Ile Arg
            420                 425                 430
Ala Ser Arg
        435
```

<210> 38433
<211> 517
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (384),(388)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38433

```
Val Ala Ser Asn Val Arg Val Gly Ser Gly Lys Thr Ser Leu Ile Lys
1               5                  10                  15
Ser Ile Val Gln Ala Cys Glu Asp Ile Val His Val Asp Pro Phe Pro
            20                  25                  30
Ser Leu Ser Pro Ser Asn Leu Pro Ala Arg Ala Gln Pro Pro Thr Thr
        35                  40                  45
Ala Ala Val Ile Ser Glu Ile Tyr Ala Ser Thr Lys Pro Tyr Pro Ala
    50                  55                  60
Trp Trp Ser Asp Leu Glu Asp Ser Arg Val Leu Arg Arg Arg Lys Ser
65                  70                  75                  80
Ser Gly Asp Ile Val Leu Glu Arg Asn Leu Cys Phe Val Asp Thr Ala
                85                  90                  95
Gly Asn Gly Leu Thr Arg Val Gly Gln Thr Asp Ala Ile Ile His His
            100                 105                 110
Ile Gln Gln Gln Leu Leu Arg Ala Thr Thr Ala Val Thr Ser Ser Asn
        115                 120                 125
Thr Asp Phe Glu Asn Leu Leu Ala Gly Asn Gly Gly Ala Gln Val Asp
    130                 135                 140
Ala Ile Leu Tyr Leu Ile Ser Glu Ser Lys Trp Ser Thr Leu Ser Tyr
145                 150                 155                 160
Leu His Cys Ser Asn Ser Ala Asp Leu Gln Asp Thr Leu Asp Glu Asp
                165                 170                 175
Ile Glu Cys Ile Arg Lys Leu Cys Val Trp Thr Asn Val Ile Pro Leu
            180                 185                 190
Ile Ser Lys Ser Asp Leu Leu Thr Pro Asp Gln Ile Ala Thr Leu Lys
        195                 200                 205
Ser Ser Phe His Ala Lys Ala Gln Met Ala Ser Ile Lys Pro Phe His
    210                 215                 220
Phe Gly Asp Ala Thr Ser Ala Ala Ala Asp Gly Phe Ser Ser His Ser
225                 230                 235                 240
Pro Phe Ala Val Ser Ser Ala Lys Val Asp Asp Glu Asp Val Met Asp
                245                 250                 255
Ala Ser Thr Leu Met Ser Pro Asp Tyr Val Gln Pro Leu Ala Pro Ser
            260                 265                 270
Glu Leu Ser Leu Leu Val Lys Lys Leu Phe Asp Leu Asp Asn Met Ala
        275                 280                 285
Trp Ile Arg His Ser Ala Ala Lys Lys Leu Val Gln Arg Gln His Asp
    290                 295                 300
Gln Gly Pro Gln Trp Glu Val Ser Arg His Ser Thr Asn Pro Phe Asp
305                 310                 315                 320
Gly Gln Ser Thr Val Ser Arg Cys Thr Ser Ser Ile Phe Ser Ala Ser
                325                 330                 335
Tyr Leu Glu Gly Thr Met Ser Pro Pro Ser Gly Arg Phe Pro Ser Tyr
            340                 345                 350
Thr Met Ala Arg Ile Ser Asp Tyr Thr Gln Arg Glu Glu Lys Met Ala
        355                 360                 365
Arg Val Gln Leu Ala Lys Trp Ala Ser Asp Leu Gln Arg Ser Leu Xaa
    370                 375                 380
Asn Glu Arg Xaa Arg Tyr Ala Ala Leu Ala Arg Gly Glu Arg Ala Val
385                 390                 395                 400
Trp Leu Thr Glu Arg Leu Gly Glu Cys Val Val Asp Gly Ser Leu Val
```

```
                405                 410                 415
Pro Ile Thr Lys Thr Pro Gly Phe Cys Gly Leu Arg Phe Pro Met Asp
            420                 425                 430
Asn Ala Gly Gly Arg Leu Phe Val Arg Thr Gln Asp Gly Lys Asn Met
        435                 440                 445
Glu Tyr Arg Val Thr Ser Ile Ser Pro His Asp Pro Leu Gly Ile Val
    450                 455                 460
Trp Trp Ser Asp Asp Leu Lys Gln Arg Gly Trp Ala Ile Val Gln Ile
465                 470                 475                 480
Val Gly Ser Leu Gly Val Val Gly Gly Leu Ala Phe Leu Leu Ala Arg
                485                 490                 495
Thr Trp Gly Leu Ser Ser Arg Ser Leu Ser Glu Trp Arg Phe Asp Cys
            500                 505                 510
Cys Ser Thr Cys Asn
        515
```

<210> 38434
<211> 453
<212> PRT
<213> A.fumigatus

<400> 38434

```
Ser Ala Tyr Pro Ala Ser Arg Val Val Lys Thr Asp Glu Glu Lys Lys
1               5                   10                  15
Ala Lys Ile Glu Glu Val Asp Asp Glu Glu Glu Glu Glu Lys Lys Lys
            20                  25                  30
Lys Lys Thr Lys Thr Val Lys Glu Ser Lys Ile Glu Glu Glu Glu Leu
        35                  40                  45
Asn Lys Thr Lys Pro Ile Trp Thr Arg Asn Pro Ala Asp Ile Thr Gln
    50                  55                  60
Glu Glu Tyr Ala Ser Phe Tyr Lys Ser Leu Ser Asn Asp Trp Glu Asp
65                  70                  75                  80
His Leu Ala Val Lys His Phe Ser Val Glu Gly Gln Leu Glu Phe Arg
                85                  90                  95
Ala Ile Leu Tyr Val Pro Lys Arg Ala Pro Phe Asp Leu Phe Glu Thr
            100                 105                 110
Lys Lys Thr Lys Asn Asn Ile Lys Leu Tyr Val Arg Arg Val Phe Ile
        115                 120                 125
Thr Asp Asp Ala Thr Asp Leu Ile Pro Glu Trp Leu Gly Phe Ile Lys
    130                 135                 140
Gly Val Val Asp Ser Glu Asp Leu Pro Leu Asn Leu Ser Arg Glu Thr
145                 150                 155                 160
Leu Gln Gln Asn Lys Ile Met Lys Val Ile Lys Lys Asn Ile Val Lys
                165                 170                 175
Lys Thr Leu Glu Leu Phe Asn Glu Ile Ala Glu Asp Arg Glu Gln Phe
            180                 185                 190
Asp Lys Phe Tyr Ser Ala Phe Ser Lys Asn Ile Lys Leu Gly Ile His
        195                 200                 205
Glu Asp Ala Gln Asn Arg Gln Thr Leu Ala Lys Leu Leu Arg Tyr Gln
    210                 215                 220
Ser Thr Lys Ser Gly Asp Glu Ala Thr Ser Leu Ala Asp Tyr Val Thr
225                 230                 235                 240
Arg Met Pro Glu His Gln Lys Gln Ile Tyr Tyr Ile Thr Gly Glu Ser
                245                 250                 255
Ile Lys Ala Val Ala Lys Ser Pro Phe Leu Asp Ser Leu Lys Gln Lys
            260                 265                 270
```

```
Asn Phe Glu Val Leu Phe Leu Val Asp Pro Ile Asp Glu Tyr Ala Phe
        275                 280                 285
Thr Gln Leu Lys Glu Phe Asp Gly Lys Lys Leu Val Asp Ile Thr Lys
    290                 295                 300
Asp Phe Glu Leu Glu Glu Thr Glu Glu Glu Lys Ala Glu Arg Glu Lys
305                 310                 315                 320
Glu Glu Lys Glu Tyr Glu Asn Leu Ala Lys Ser Leu Lys Asn Ile Leu
                325                 330                 335
Gly Asp Lys Val Glu Lys Val Val Val Ser His Lys Leu Val Gly Ser
            340                 345                 350
Pro Cys Ala Ile Arg Thr Gly Gln Phe Gly Trp Ser Ala Asn Met Glu
        355                 360                 365
Arg Ile Met Lys Ala Gln Ala Leu Arg Asp Thr Ser Met Ser Ser Tyr
    370                 375                 380
Met Ser Ser Lys Lys Thr Phe Glu Ile Ser Pro Lys Ser Ser Ile Ile
385                 390                 395                 400
Lys Glu Leu Lys Lys Lys Val Glu Ala Asp Gly Glu Asn Asp Arg Thr
                405                 410                 415
Val Lys Ser Ile Thr Gln Leu Leu Phe Glu Thr Ser Leu Leu Phe Pro
            420                 425                 430
Ala Ser Pro Ser Arg Ser Leu Pro Ala Ser Leu Ser Ala Phe Thr Ser
        435                 440                 445
Ser Cys Leu Leu Val
    450
```

<210> 38435
<211> 75
<212> PRT
<213> A.fumigatus

<400> 38435

```
Lys Arg Pro His Cys Gln Val His His Pro Ala Ala Leu Arg Asp Leu
1               5                   10                  15
Pro Ser Val Ser Gly Phe Thr Ile Glu Glu Pro Ala Ser Phe Ala Glu
            20                  25                  30
Arg Ile His Lys Leu Val Ser Leu Gly Leu Asn Ile Asp Glu Glu Ala
        35                  40                  45
Glu Thr Thr Glu Glu Lys Ala Thr Glu Glu Ala Ala Pro Ala Glu Ala
    50                  55                  60
Thr Thr Gly Glu Ser Ala Met Glu Glu Val Asp
65                  70                  75
```

<210> 38436
<211> 67
<212> PRT
<213> A.fumigatus

<400> 38436

```
Ser Cys Ala Phe Lys Thr Asp Phe Tyr Pro Val Leu Ala Ile Met Met
1               5                   10                  15
Ile Gly His Asn Ile Tyr Ile Asn Tyr Leu Ser Thr Pro Leu Thr Ala
            20                  25                  30
Leu Tyr Leu Pro Lys Ser Glu Thr Ser His Gly Gln Ala Pro Val Asp
        35                  40                  45
Asp Thr Ile Arg Ile His Pro Trp Val Met His His Phe Asp Arg Ala
    50                  55                  60
```

Thr Ala Gly
65

<210> 38437
<211> 420
<212> PRT
<213> A.fumigatus

<400> 38437
Leu Gln Ile Leu Pro Asn Ser Val Ile Arg Ala Gln Lys Leu Cys Pro
1 5 10 15
Ser His His Gly Ile Asn Pro Tyr Ile Val Ala Asn Ile Cys Ser Leu
20 25 30
Ile Arg Lys Glu Val Thr Glu His Leu Asp Val Ile Asp Trp Tyr Ser
35 40 45
Asp Asn Leu Asp Gln Ser His Val Arg Leu Val Arg Ala Leu Gln Ser
50 55 60
Met Gln Gly Met Trp Ser Leu Val Pro Leu Gly Thr Arg Pro Pro Pro
65 70 75 80
Ile Ala Pro Ala Pro Tyr Gln Glu Asn Arg Cys Glu Ala Cys Ile Leu
85 90 95
Ala Arg Val Val Gln Glu Pro Met Phe Leu Gln Asn Leu Arg Val Ala
100 105 110
Leu Ile Ser Arg Thr Arg Thr Arg Ser Lys His Arg Ala Pro Arg Leu
115 120 125
Leu Ala Phe Ile Asp Gln Ala Ile Asn Tyr Tyr Gly Asp Arg Ala Leu
130 135 140
Gln Tyr Trp His Ala Ser Gly Gln Ala Ala Phe Asp Phe Lys Ala Ala
145 150 155 160
Arg Lys Ala Ala Val Arg Ala Tyr Lys Lys Arg Pro Gln Arg Ile His
165 170 175
Arg Arg Glu Asp Tyr Thr Asp His Leu Arg Lys His Pro Lys Asn Lys
180 185 190
Gly Arg Ser Ile Arg Leu Glu Pro Gly Gln Arg Glu Ser Ala Gly Phe
195 200 205
Ala Glu Ala Pro Gly Tyr Val Thr Ser Gln Arg Ser Ser Asp Asp Asp
210 215 220
Gly Asp Asp Met Gln Ser Ile Val Val Tyr Met Asp His Ser Ser Ala
225 230 235 240
Glu Gln Gln Gly Leu Tyr Arg Asn Ala Ser Gln Arg Ala Arg Val His
245 250 255
Ser His His Ala Glu Ile Val Asn Glu Arg Asp Thr Val Ala Asp Glu
260 265 270
Ile Ile Ala Thr Tyr Glu Ala Phe Gly Ala Arg Asp Trp Ala Pro Arg
275 280 285
Ser Thr Thr Asn Leu Pro Ala Gly Val Pro Pro Val His Pro Leu Ser
290 295 300
Val Pro Gly Ala Asp His Ser Val Ile Ser Ala Ser Arg Tyr Asp Glu
305 310 315 320
Asp His Pro Met Gly Glu Pro Ser Tyr Met Pro Pro Arg Asn Asn Ser
325 330 335
Asp Trp Arg Ser Ala Gly Asn Gly Ala Ala Leu Gly Thr Leu Glu Ala
340 345 350
Leu Ser Lys Glu Ile Gly Glu Leu Ala Leu Gly Gly Pro Pro Gly Glu
355 360 365
Asp Thr Glu Glu Leu Ala Asp Arg Tyr Cys Glu Leu Leu Ser Pro Val

```
    370                 375                 380
Ala Tyr His Ser Asp Ser Glu Tyr Ser Glu Thr Ser Trp Met Asp Asp
385                 390                 395                 400
Pro Val Arg Asp Ala Gly Pro Gly Asp Thr Thr Trp Asp Leu Val Cys
                405                 410                 415
Lys Glu Ser Tyr
            420
```

<210> 38438
<211> 199
<212> PRT
<213> A.fumigatus

<400> 38438

```
Gln Phe Thr Val Thr Phe His Ser Arg His His Arg Leu Tyr Val Pro
1               5                   10                  15
Tyr Ala Phe Gly Ala Leu Tyr Asn His Pro Val Glu Gly Phe Leu Leu
            20                  25                  30
Asp Thr Ala Gly Ala Gly Ile Gly Phe Leu Val Thr Arg Met Thr Asn
        35                  40                  45
Arg Gln Ala Met Trp Phe Phe Thr Cys Ser Thr Ile Lys Thr Val Asp
    50                  55                  60
Asp His Cys Gly Tyr Ala Phe Pro Trp Asp Pro Leu Gln His Phe Thr
65                  70                  75                  80
Asn Asn Asn Ala Ala Tyr His Asp Ile His His Gln Ser Trp Gly Ile
                85                  90                  95
Lys Thr Asn Phe Ser Gln Pro Phe Phe Thr Phe Trp Asp Arg Leu Phe
            100                 105                 110
Asn Thr Lys Trp Glu Gly Asp Val Lys Leu Arg Tyr Glu Arg Ser Arg
        115                 120                 125
Glu Ala Ala Gln Lys Gln Val Asp Gln Asp Ala Ser Ser Ala Ala Ala
    130                 135                 140
Ser Ser Asn Glu Glu Asn Ser Tyr Glu Gly Pro Val Val Ser Pro Asp
145                 150                 155                 160
Ala Pro Ala Asp Ser Asn Ala Arg Ala Arg Leu Arg Arg Lys Thr Val
                165                 170                 175
Thr Leu Ser Pro His Val Asp Ser Leu Lys Gly Val Asn His Gly Val
            180                 185                 190
Thr Ser Ser Val Leu Gln Ala
        195
```

<210> 38439
<211> 110
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (5)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38439

```
Ile Val Leu Pro Xaa Ser Leu Leu Lys Leu Ser Met Gly Ser Leu Ile
1               5                   10                  15
Tyr Trp Tyr Phe Ile Pro Ala Val Gln Phe Thr Val Gly Val Phe Ile
            20                  25                  30
```

```
Val Asp Thr Trp Gln Tyr Phe Leu His Arg Ala Met His Leu Asn Arg
        35                  40                  45
Trp Leu Tyr Gly Met Tyr Phe Asp Tyr Glu Ala Leu Val Thr Arg Gly
    50                  55                  60
Ser Pro Thr Asn Ser Leu Gln Ser Leu Ser Thr Leu Ala Ile Ile Gly
65                  70                  75                  80
Phe Met Ser His Thr Pro Ser Ala Pro Ser Ile Ile Thr Arg Trp Lys
                85                  90                  95
Ala Ser Phe Leu Ile Leu Leu Val Leu Ala Leu Gly Phe Trp
            100                 105                 110
```

<210> 38440
<211> 117
<212> PRT
<213> A.fumigatus

<400> 38440

```
Val Phe Asn Thr Phe Met Tyr Gln Leu Thr His Gly Ala Thr Glu Ala
1               5                   10                  15
Ala Gly Arg Leu Arg Ser Met Arg Lys Met Leu Phe Ile Ala Ile Leu
            20                  25                  30
His Val Thr Glu Ser Cys Cys Thr Asn Met Trp Thr Met His Ser Trp
        35                  40                  45
Ser Phe Val Leu Tyr Asn Glu Leu Tyr Leu Asp Ile Phe Thr Gln Cys
    50                  55                  60
Asn Val Tyr Ile Ser Gln Leu Asp Phe Pro Lys Leu Arg Asn Cys Tyr
65                  70                  75                  80
Arg Asn Lys Ala Ser Asn Ile Leu Pro Ser Pro Leu Ile Ser Leu Ala
                85                  90                  95
Phe Gly Val Gln Pro Met Ile Phe Leu Gly Thr Thr Pro Lys Asn Gln
            100                 105                 110
Ser Pro Asn Arg Pro
        115
```

<210> 38441
<211> 75
<212> PRT
<213> A.fumigatus

<400> 38441

```
Val Arg Val Ile Arg His Trp Ala Gln Gln Phe Ala Val Ser Val Arg
1               5                   10                  15
Lys Leu Phe Gly Val Leu Ala Arg Gly Ser Ser Lys Arg Gln Phe Pro
            20                  25                  30
Asp Leu Leu Arg Gln Gly Phe Gln Gly Ala Glu Gly Gly Ser Val Thr
        35                  40                  45
Gly Thr Pro Pro Val Arg Val Val Ala Arg Arg His Val Ala Arg Phe
    50                  55                  60
Thr His Gly Val Val Leu Ile Val Ala Arg Arg
65                  70                  75
```

<210> 38442
<211> 311
<212> PRT
<213> A.fumigatus

<400> 38442
Gln Thr Pro Ala Lys Ile Ala Ile Ser Lys Phe Phe Asp Gly Glu Gly
1 5 10 15
Pro Asp Pro Val Glu Glu Ala Arg Ala Ala Leu Asn Asn Pro Pro Pro
20 25 30
Pro Arg Pro Ile Arg Gln Thr Arg Asn Leu Met Ser Asp Asp Leu Ser
35 40 45
Thr Gln Leu Ser Pro Ala Ala Arg Ala Ser Glu Pro Ala Pro Arg Ile
50 55 60
Val Thr Gln Ser Glu Asp His Ser Val Tyr Arg Pro Pro Phe Leu Leu
65 70 75 80
Ala Leu Leu Phe Thr Pro Phe Asn Ile Ile Tyr Arg Leu Leu Cys Thr
85 90 95
Ser Phe Arg Leu Phe Ser Ser Leu Phe Pro Phe Leu Pro Arg Leu Leu
100 105 110
Asn Thr Thr Ala Asn Pro Ala Leu Gln Gly Ala Arg Gly His Asn Tyr
115 120 125
Gly Arg Arg Pro Leu Gly Pro Gln Asp Thr Ala Ala Arg Phe Ile Arg
130 135 140
Glu Phe Glu Glu Glu Tyr Gly Ser Asn Ala Val Gly Phe Leu Glu Asn
145 150 155 160
Gly Tyr Asn Met Ala Leu Glu Lys Ala His Arg Asp Leu Lys Phe Leu
165 170 175
Leu Val Val Leu Leu Ser Ser Glu His Asp Asp Thr Asn Ala Trp Val
180 185 190
Arg Asp Thr Leu Leu Ser Arg Glu Val Val Glu Phe Ile Lys Asp Pro
195 200 205
Gln Asn Glu Val Ile Val Trp Gly Gly Asn Val Gln Asp Ser Glu Ala
210 215 220
Tyr Gln Val Ser Asn Ser Leu Arg Cys Thr Lys Phe Pro Phe Ala Ala
225 230 235 240
Val Ile Val His Thr Pro Asn Val Ser Ser Thr Ala Met Ser Val Val
245 250 255
Cys Arg Ile Ser Gly Thr Thr Ser Pro Ser Glu Phe Val Glu Lys Leu
260 265 270
Arg Ala Ala Ile Ser Gln Asn Lys Glu Ala Leu Glu Arg Ile Arg Ala
275 280 285
Ser Arg Ala Asp Gln Gln Ala Ser Arg Thr Ile Arg Ser Ser Pro Arg
290 295 300
Gly Trp Lys Ile Arg Val Gln
305 310

<210> 38443
<211> 98
<212> PRT
<213> A.fumigatus

<400> 38443
Thr Arg Ala Asp Thr Gln Leu Pro Ala Gln Ile Asp Tyr Phe His Ser
1 5 10 15
Leu Val Pro Leu Asp Leu Asn His Gln Lys Asn Ala Thr Ile Phe Gly
20 25 30
Phe Pro Ser Trp Val Tyr Lys Ala Gln Ser Ser Lys Asp Gly Asn Tyr
35 40 45
Tyr Ala Leu Arg Arg Leu Glu Gly Val His Pro Phe Ile Pro His Leu
50 55 60

```
Tyr Thr Ala Lys Ser Val Lys Ala Lys Trp Leu Ser Arg Leu Ser Val
65                  70                  75                  80
Asp Glu Arg Glu Gly Asp Ser Ile Arg Pro Gly Leu Glu Ala Gly Val
                85                  90                  95
Gln Trp
```

<210> 38444
<211> 85
<212> PRT
<213> A.fumigatus

<400> 38444

```
Met Leu Leu Leu Met Ile Leu Thr Leu Ile Pro Phe Ile Leu Leu Leu
1               5                   10                  15
Phe Pro Arg Leu Ser Asp Asn Ala Leu Asp Ile Ala Pro Pro Leu Lys
            20                  25                  30
Ala Asp Pro Tyr His Leu Trp Asn Leu Phe Gly Leu Val Gln Glu Gly
        35                  40                  45
Ala Asn Ala Asp Leu Val Tyr Gly Phe Gln Ser Leu Ile Ala Arg Phe
    50                  55                  60
Arg Leu Leu Ser Lys Glu Met Ala Thr Ala Leu Ser His Leu Arg Ala
65                  70                  75                  80
Arg Leu Ile Leu Ser
                85
```

<210> 38445
<211> 207
<212> PRT
<213> A.fumigatus

<400> 38445

```
Lys Val Cys Ile Pro Ser Ser Leu Ile Cys Ile Pro Gln Ser Arg Ser
1               5                   10                  15
Arg Leu Ser Gly Ser Pro Gly Phe Arg Leu Thr Asn Glu Lys Ala Ile
            20                  25                  30
Arg Ser Val Gln Ala Trp Lys Arg Val Cys Asn Gly Ser Val Val Thr
        35                  40                  45
Val His Asp Ala Phe Thr Ser Arg Ser Phe Gln Asp Ser Ser Leu Ile
    50                  55                  60
Phe Val Thr Asp Tyr His Pro Leu Ser Lys Thr Leu Ala Glu Gln His
65                  70                  75                  80
Leu Gly Ala Gly Gln Gln Arg Phe Gln Gly Arg His Asn Val Gln His
                85                  90                  95
Ile Pro Glu Gln Ile Leu Trp Gly Tyr Met Thr Gln Ile Ala Asn Ala
            100                 105                 110
Leu Lys Ala Ile His Ser Asn Gly Leu Ala Ala Arg Val Ile Asp Ala
        115                 120                 125
Ser Lys Ile Leu Leu Thr Gly Lys Asn Arg Ile Arg Leu Asn Ala Cys
    130                 135                 140
Ala Ile Met Asp Val Val Gln Phe Asp Ser Gln Arg Thr Val Ala Asp
145                 150                 155                 160
Leu Gln Arg Gln Asp Leu Val Asn Phe Gly Gln Leu Ile Val Thr Leu
                165                 170                 175
Gly Ala Asn Ser Pro Thr Val Met His Asn Pro Thr Lys Ala Met Glu
            180                 185                 190
```

```
His Phe Thr Arg Ala Tyr Ser Pro Ser Ser Pro Pro Gly Arg Lys
        195                 200                 205

<210> 38446
<211> 77
<212> PRT
<213> A.fumigatus

<400> 38446
Met Lys Val Gly Thr Phe Phe Phe Ser Thr Ser Ser Pro Glu Ile Lys
1               5                   10                  15
Ser Pro Arg Asn His Ile Ala Asp Ile Gly Val Leu Leu Asp Met Asp
            20                  25                  30
Val Asp Thr Met Ser Val Lys His Thr Gln Ser Arg Ser Lys Lys Pro
        35                  40                  45
Gly Arg Val Gln Lys Arg Lys Lys Ala Arg Ser Ser Ile Val Phe Gln
    50                  55                  60
Thr His Pro Leu Lys Thr Lys Lys Gly Ser Arg Arg Lys
65                  70                  75

<210> 38447
<211> 109
<212> PRT
<213> A.fumigatus

<400> 38447
Leu Arg His Phe Asp Ile Asn Ser Leu Ile Arg Ser Gly Ala Ala Leu
1               5                   10                  15
Pro Phe Thr Ala His Ala Ser Ser Pro Thr Val Thr Met Pro Arg Leu
            20                  25                  30
Lys Ala Met Thr Thr Gly Ser Val Pro Ser Phe Leu Asp Val Ile Leu
        35                  40                  45
Asn Ile Ala Glu Ser Asp Thr Ser Ser Thr Leu Ala Tyr Gln Asp Thr
    50                  55                  60
Trp Leu Ala Gln Ile Lys Ala Gln Gly Gly Gln Leu Val Met Tyr Gly
65                  70                  75                  80
Asp Asp Thr Trp Ile Lys Leu Phe Pro Gly Val Phe Asp Arg Cys Asp
                85                  90                  95
Gly Thr Thr Ser Phe Phe Val Ser Val Ser His Asn His
            100                 105

<210> 38448
<211> 153
<212> PRT
<213> A.fumigatus

<400> 38448
Tyr Arg Ser Arg His Met Met Thr Lys Gln Arg Glu Met Asp Ser Ile
1               5                   10                  15
Val Ala Leu Ile Tyr Ala Ala Met Glu Glu Gln Glu His Leu Gln Ser
            20                  25                  30
Thr Leu Phe Val Leu Cys Gly Asp His Gly Met Asn Asp Ala Gly Asn
        35                  40                  45
His Gly Gly Ser Ser Pro Gly Glu Ile Ser Pro Ala Leu Leu Phe Ile
    50                  55                  60
Ser Pro Lys Phe Gln Thr Lys Thr Thr Pro Glu Asp Ser Pro Val Glu
```

65 70 75 80
Ala Phe Ser Asp Leu Gln Tyr Tyr Arg Thr Val Glu Gln Val Asp Ile
85 90 95
Thr Pro Thr Leu Ala Gly Leu Leu Gly Leu Pro Ile Pro Leu Asn Ser
100 105 110
Leu Gly Val Phe Ile Pro Glu Phe Leu Met Met Trp Asp Asn Gly Ile
115 120 125
Val Val Ser Phe Leu Leu Ser Val Thr Tyr Leu Lys Thr Asp Met Leu
130 135 140
Pro Leu Gly Ser Arg Cys Ser Gln Asn
145 150

<210> 38449
<211> 431
<212> PRT
<213> A.fumigatus

<400> 38449
Asp Ser Gly Phe Asp Ala Glu Ile Ile Ser Thr Asp Gly Pro Ser Ile
1 5 10 15
Gln Ala Asp Ile Pro Arg Asp Ala Gln Asp Ala Lys Pro Arg Phe Ser
20 25 30
Thr Thr Thr Leu Ala Val Glu Gly Met Thr Cys Gly Ala Cys Thr Ser
35 40 45
Ala Val Glu Gly Gly Leu Lys Glu Val Arg Gly Val Lys Ser Ile Asn
50 55 60
Val Ser Leu Leu Ser Glu Arg Ala Val Val Glu His Asp Ala Ser Val
65 70 75 80
Ile Thr Pro Glu Gln Leu Ala Asp Ile Ile Glu Asp Arg Gly Phe Gly
85 90 95
Ala Thr Val Leu Glu Thr Ser Thr Pro Gln Asp Val Pro Arg Gly Ser
100 105 110
Leu Glu Asp Ala Asp Ala Thr Ser Arg Leu Met Asn Thr Thr Val Ser
115 120 125
Ile Asp Gly Met Thr Cys Gly Ala Cys Thr Ser Ser Val Gln Ser Ala
130 135 140
Phe Asp Gly Val Asp Gly Val Val Gln Phe Asn Ile Ser Leu Leu Ala
145 150 155 160
Glu Arg Ala Ile Ile Val His Asp Pro Thr Val Leu Ser Ala Gln Gln
165 170 175
Ile Thr Thr Ile Ile Glu Asp Ala Gly Phe Asp Ala Thr Ile Ile Ala
180 185 190
Ser Glu Pro Lys Leu Ser Thr Ser Ser Ser Met Asn Ser Val Thr Leu
195 200 205
Ser Leu His Gly Leu Arg Asp Val Val Ala Ala Asn Asp Leu Glu Asp
210 215 220
Ser Leu Leu Arg Arg Pro Gly Ile Tyr Ser Ala Ser Ile Asn Met Gly
225 230 235 240
Thr Tyr Lys Leu Ala Ile Ser Phe Asp Ser Ala Lys Ile Gly Ile Arg
245 250 255
Thr Ile Val Glu Ala Ile Glu Ala Ala Gly Tyr Asn Ala Leu Leu Ser
260 265 270
Glu Ser Asp Asp Thr Asn Ala Gln Leu Glu Ser Leu Ser Lys Thr Lys
275 280 285
Glu Val Gln Glu Trp Arg His Ala Phe Leu Phe Ser Leu Ser Phe Ala
290 295 300

```
Val Pro Val Phe Val Leu Asn Met Leu Leu Pro Met Tyr Leu Pro Lys
305                 310                 315                 320
Leu Asp Phe Gly Lys Leu Pro Leu Cys Ala Gly Val Tyr Leu Gly Asp
                325                 330                 335
Val Leu Cys Leu Leu Leu Thr Ile Pro Val Gln Phe Gly Ile Gly Lys
            340                 345                 350
Arg Phe Tyr Val Ser Ser Tyr Lys Ser Leu Lys His Arg Ser Pro Thr
        355                 360                 365
Met Asp Val Leu Val Met Leu Gly Thr Ser Ala Ala Phe Phe Tyr Ser
    370                 375                 380
Val Phe Ile Met Leu Val Ala Met Cys Thr Met Ala Glu Lys Arg Pro
385                 390                 395                 400
Arg Thr Val Phe Asp Thr Ser Thr Met Leu Ile Thr Phe Ile Thr Leu
                405                 410                 415
Gly Arg Trp Ser Ser Pro Arg Gly Trp Lys Glu Pro Arg Met Arg
            420                 425                 430
```

<210> 38450
<211> 101
<212> PRT
<213> A.fumigatus

<400> 38450

```
Ala Pro Asp Asn Gln Ala Gln Met Asp Gln Ile His Thr Arg Ala Ile
1               5                   10                  15
Glu Ala Leu Gln Pro Phe Ile His Leu Ala Asn Ser Asn Ser Ala Thr
            20                  25                  30
Ser Pro Arg Phe Ile Ala Asn Leu Ile Thr Asn Ala Thr Ser Asn Pro
        35                  40                  45
His Thr Tyr Val Phe Ala Glu Leu Leu Glu Thr Pro Thr Ile Gln Ala
    50                  55                  60
Leu Arg Ser Pro Asn Thr Pro Glu Glu Phe Gln Gly Tyr Leu Thr Leu
65                  70                  75                  80
Leu Glu Ile Phe Ala Trp Gly Thr Trp Gln Asp Tyr Gln Ser Glu His
                85                  90                  95
Ala Ser Pro Ser Asn
            100
```

<210> 38451
<211> 333
<212> PRT
<213> A.fumigatus

<400> 38451

```
Ala Leu Ser Ser Ser Glu Ala Phe Pro Ala Asp Ile Ser Ser Val Trp
1               5                   10                  15
Phe Ser Leu Val Leu Thr Leu Ile Asp Arg Leu Thr His Thr Val Pro
            20                  25                  30
Ser Asn Gly Leu Gln Arg Ile Val Lys Thr Trp Lys Gly Pro Ala Asp
        35                  40                  45
Ser Leu Ala Ala Leu Ser Pro Trp Pro Lys Asp Phe Ser Gln Gly Ile
    50                  55                  60
Val Pro Val Gln Cys His Ser His Asn Asp Tyr Trp Arg Ser Val Pro
65                  70                  75                  80
Leu Tyr Glu Ala Leu Ala Ala Gly Cys Thr Gly Val Glu Ala Asp Val
                85                  90                  95
```

```
Trp Leu Glu Gly Ser Asp Leu Leu Val Gly His Gly Lys Arg Ser Leu
            100                 105                 110
Thr Pro Asp Arg Thr Leu Arg Ser Leu Tyr Ile Glu Pro Leu Thr Thr
        115                 120                 125
Ile Leu Ser Asn Leu Asn Ala Asp Ser Ser Ala Asn Ser Ser Ala Gly
    130                 135                 140
Val Phe Glu Thr Asp Pro Thr Thr Ser Leu Thr Leu Leu Ile Asp Ile
145                 150                 155                 160
Lys Ser Asp Gly Asn Ala Thr Trp Pro Val Leu Leu Asp Gln Leu Ala
                165                 170                 175
Pro Leu Arg Ser Gly Gly Trp Leu Ser His Trp Asn Gly Thr Ser Lys
            180                 185                 190
Thr Leu Val Asn Gly Pro Val Thr Val Val Gly Thr Gly Asn Thr Leu
        195                 200                 205
Phe Asp Leu Val Leu Ala Glu Glu Asp Arg Tyr Val Phe Phe Asp Ala
    210                 215                 220
Pro Leu Asp Glu Leu Ala Gln Asn Ser Thr Tyr Thr Ala Glu Asn Ser
225                 230                 235                 240
Tyr Tyr Ala Ser Val Ser Leu Gln Lys Ser Val Gly Val Val Trp Pro
                245                 250                 255
Trp Gly Pro Thr Asp Asn Gln Lys Gln Ala Met Gln Lys Met Ile Ser
            260                 265                 270
Ala Ala Ser Glu Arg Gly Leu Leu Ala Arg Phe Trp Ser Ile Pro Ser
        275                 280                 285
Trp Pro Val Ser Leu Arg Met Arg Leu Trp Arg Phe Leu Val Asp Ser
    290                 295                 300
Gly Val Gly Met Leu Asn Val Asp Asp Val Val Glu Ala Thr Arg Trp
305                 310                 315                 320
Asn Trp Asp Trp Cys Ile Val Ala Gly Leu Val Leu Cys
                325                 330
```

<210> 38452
<211> 161
<212> PRT
<213> A.fumigatus

<400> 38452

```
Arg Asn Ser Thr Thr Cys Ser Phe Leu Lys Met Val Ala Ser Gly Pro
1               5                   10                  15
Glu Ala Phe Ala Ile Asn Phe Ser Asn Arg Phe Thr Leu Ser Asn Met
            20                  25                  30
Thr Gly Ser Phe Pro Pro His Leu Val Asp Asp Ile Arg Ser Leu Ser
        35                  40                  45
Asn Ser Asp Gly Tyr Ala Val Lys Glu Glu Leu Leu Lys Arg Gly Val
    50                  55                  60
Gly Ala Ala Tyr Ala Ala Tyr Thr Val Pro Tyr Pro Leu Gln Ser Gly
65                  70                  75                  80
Pro Thr Lys Tyr Ala Pro Met Ala Lys Glu Pro Gly Ser Thr Ile Pro
                85                  90                  95
Val Lys Thr Lys Ala Pro Ala Pro Gln Phe Thr Ala Ser Val Tyr Thr
            100                 105                 110
Ile Ala Thr Thr Arg Leu Pro Pro Ala Thr Val Gln Ala Thr Leu Ser
        115                 120                 125
Ala Ser Ala Thr Tyr Ser Ile Val Ser Val Glu Asn Thr Val Ser Gly
    130                 135                 140
Leu Leu Asp Gly Leu Asp Asn Lys Arg Ala Ser Ser Asp Arg His Phe
```

145 150 155 160
Pro

<210> 38453
<211> 119
<212> PRT
<213> A.fumigatus

<400> 38453
Ile Arg Ser Cys Leu Asp Leu Tyr His Ile Gln Leu Leu Leu Asp Tyr
1 5 10 15
Cys Val Leu His Glu Thr Tyr Ile Leu Asn Met Asn Ile Leu Gln Cys
20 25 30
Leu Phe Thr Leu Leu Leu Leu Pro Cys Thr Leu Ala Asp Val Asp Phe
35 40 45
Thr Val Pro Thr Ile Gly Thr Asn Phe Lys Gly Gly Asp Val Val Thr
50 55 60
Val His Trp Cys Glu Ser Gly Gln Pro Pro Arg Ile Ser Glu Leu Ser
65 70 75 80
Gln Tyr Asp Leu Ser Leu Tyr Ala Gly Gly Asp Lys Ala Asp Thr Gln
85 90 95
Val Ser Ser Trp Ala Leu Gln Thr Ala His Gly Leu Leu Leu Thr Glu
100 105 110
Arg Glu Pro Thr Ser Met Lys
115

<210> 38454
<211> 98
<212> PRT
<213> A.fumigatus

<400> 38454
Ser Ser Phe Leu Leu Ala Leu Leu Ala Leu Val Cys Gly Gly Trp Met
1 5 10 15
Trp Thr Arg Asp Pro Asn Ile Phe Leu Ala Tyr Arg Tyr Lys Pro Ala
20 25 30
Phe Ser Ser Pro Ala Arg Val Asp Val Leu Thr Gly Tyr Ile Phe Gln
35 40 45
Ala Leu Ala Ala Val Gly Gln Cys Arg Leu Met Ser Leu Trp Asp Gly
50 55 60
Leu Phe Ser His Leu Arg Leu Pro Val Ala Gln Ile Leu Leu Thr Arg
65 70 75 80
Asn Asp Ile Ala Asp Val Arg Thr His Ser Leu Gln Leu Trp Thr Lys
85 90 95
Asp Ile

<210> 38455
<211> 282
<212> PRT
<213> A.fumigatus

<400> 38455
Ser Asp Lys Thr His Lys Glu Ile Lys Phe Gly Asp Asn Asp Thr Leu
1 5 10 15

```
Ser Ala Ile Thr Ala Ala Met Val Lys Ala Asp Tyr Leu Phe Leu Met
            20                  25                  30
Thr Asp Val Asp Cys Leu Tyr Thr Ser Asn Pro Arg His Asn Pro Asp
        35                  40                  45
Ala Lys Pro Ile Glu Val Val Ser Asp Ile Ser Ser Leu Glu Ala Asp
    50                  55                  60
Val Ser Ser Ala Gly Ser Ser Leu Gly Thr Gly Gly Met Ser Thr Lys
65                  70                  75                  80
Ile Val Ala Ala Lys Leu Ala Thr Ser Ala Gly Val Thr Thr Val Ile
                85                  90                  95
Thr Lys Ser Ser Lys Pro Gly Asn Val Leu Glu Ile Val Lys Tyr Leu
            100                 105                 110
Gln Gln Ser Gln Arg Gly Ile Leu Gly Gln Ser Ser Thr Val Glu Thr
        115                 120                 125
Thr Pro Ser Glu Ser Gln Ser Pro Leu Ser Pro Pro Leu His Thr Arg
    130                 135                 140
Phe Leu Pro Ser Asp Thr Pro Ile Gln Ser Arg Ser Phe Trp Leu Leu
145                 150                 155                 160
His Gly Leu Lys Pro Arg Gly Ser Leu Tyr Ile Asp His Gly Ala Tyr
                165                 170                 175
Ser Ala Leu Leu Asn Lys Ala Ser Leu Leu Pro Ala Gly Val Val Gly
            180                 185                 190
Val Asp Gly His Phe Gly Gln Gln Glu Ala Val Arg Leu Val Val Val
        195                 200                 205
Glu Arg Leu Ser Pro Asp Ser Leu Asn Gly Asp Phe Leu His His Gly
    210                 215                 220
Gln Glu Pro Arg Glu Val Gly Arg Ala Leu Val Asn Tyr Gly Ser Thr
225                 230                 235                 240
Glu Ile Ala Arg Ile Lys Gly His Arg Ser Thr His Ile Tyr Ser Leu
                245                 250                 255
Leu Gly Tyr Ala Asp Ser Glu Tyr Ile Ala Leu Arg Glu Asn Ile Ser
            260                 265                 270
Phe Phe Arg Ser Asp Asp Ser Val Arg Gln
        275                 280
```

<210> 38456
<211> 65
<212> PRT
<213> A.fumigatus

<400> 38456

```
Ile Gly Thr Ser Ser Ile Val Asp Glu Asn Thr His Glu Pro Ile Leu
1               5                   10                  15
Ser Ile Leu Thr Leu Ile Val Glu Thr Ala Ala Lys Leu Arg Arg Asp
            20                  25                  30
Gly His Asn Val Val Leu Val Ser Ser Gly Ala Val Gly Val Gly Leu
        35                  40                  45
Arg Arg Met Asp Val Asp Glu Arg Pro Lys Tyr Leu Pro Arg Ile Gln
    50                  55                  60
Val
65
```

<210> 38457
<211> 60
<212> PRT
<213> A.fumigatus

<400> 38457
Glu Asn Gly Asn Leu Thr Ala Lys Ala Ser Arg Pro Met Glu Met Trp
1 5 10 15
Trp Arg His Asp Tyr Ser Val Glu Pro Ala Val Val Gly Asn Lys Leu
20 25 30
Glu Leu Gln Leu Phe Cys Thr Thr Pro Tyr Val Glu Asp Gly Ala His
35 40 45
Phe Asp Leu Ile Leu Phe Leu Lys Leu Leu Leu Ala
50 55 60

<210> 38458
<211> 248
<212> PRT
<213> A.fumigatus

<400> 38458
Leu Glu Ser Lys Thr Ser Arg Leu Ala Lys Ala Thr Gln Thr Thr His
1 5 10 15
Thr Ser Gln Thr Ser Thr Ser Ala Ile Val Ser Leu Pro Pro Ser Val
20 25 30
Pro Thr Ala Ser Asn Arg Tyr Arg Ser Val Asn Asp Tyr Ser Val Lys
35 40 45
Asp Val Ser Lys Asn Pro Val Arg Tyr Arg Leu Lys Asp Thr Pro Gly
50 55 60
His Gly Lys Leu Arg Glu Ala Gln Gly Leu Ser Glu Leu Val Ser Met
65 70 75 80
Ala Thr Ala Lys Asp Lys Lys Leu Lys Leu Arg Ala Val Ile Phe Met
85 90 95
Val Asp Thr Ala Ala Leu Thr Glu Glu Asn Thr Leu Arg Asp Thr Ala
100 105 110
Ser Tyr Leu His Asp Val Leu Leu Ala Leu Gln Lys Arg Ala Leu Lys
115 120 125
Arg Gly Lys Ser Ser Ala Lys Val Ala Ser Glu Ile Pro Val Leu Val
130 135 140
Ala Ala Asn Lys Gln Asp Leu Phe Thr Ala Leu Pro Pro Gly Ser Val
145 150 155 160
Arg Glu Lys Leu Glu Thr Glu Ile Asp Arg Ile Arg Lys Ser Lys Ser
165 170 175
Lys Gly Leu Met Asn Ala Ser Glu Asp Thr Ala Thr Val Glu Asp Glu
180 185 190
Asp Asp Thr Leu Gly Ser Ile Asp Ala Gln Asp Asn Phe Ser Phe Arg
195 200 205
Leu Leu Glu Asp Glu Val Gly Val Lys Val Asp Val Val Gly Gly Val
210 215 220
Val Lys Gly Asp Glu Glu Gly Asn Ile Gly Ala Gly Val Arg Arg Trp
225 230 235 240
Glu Glu Trp Ile Gly Gln Cys Leu
245

<210> 38459
<211> 297
<212> PRT
<213> A.fumigatus

<400> 38459

```
Thr Leu Ile Leu Thr Phe Thr Gly Leu Leu Arg Gly Gly Gly Asn Asn
1               5                  10                  15
Phe Gly Ile Val Thr Lys Phe Asn Leu Tyr Thr Ile Pro Ser Ser Glu
            20                  25                  30
Met Arg Gly Gly Thr Arg Val Phe Ala Glu Asp Gln Phe Ser Asn Val
        35                  40                  45
Ile Ser Ala Phe Val Ser Val Val Asn Gly Ala Ser Asp Asp Gly Asn
    50                  55                  60
Ala Gln His Trp Val Ala Phe Val His Thr Gln Gly Gln Asn Val Ala
65                  70                  75                  80
Ala Ala Glu Ile Thr Tyr Val Lys Asn Val Ser Glu Pro Val Ile Phe
                85                  90                  95
Ala Pro Tyr Arg Ala Ile Pro Ala Val Gln Asp Thr Thr Ala Ala Arg
            100                 105                 110
Thr Leu Val Glu Tyr Cys Asp Ala Val Gln Glu Leu Asn Pro Asp Gly
        115                 120                 125
Leu Arg Glu Met Tyr Trp Thr Leu Thr Leu His Leu Asp Glu Asp Phe
    130                 135                 140
Ala Asn Trp Val Thr Gly Tyr Phe Tyr Ser Val Leu Pro Gln Val Leu
145                 150                 155                 160
Ser Ile Gln Gly Ile Asn Pro Ala Leu Val Asn Gln Gly Ile Thr Ile
                165                 170                 175
Pro Met Leu Lys Asn Met Thr Arg Asn Gly Gly Asn Ala Leu Gly Leu
            180                 185                 190
Asp Ala Ser Gln Gly Pro Phe His Leu Leu Met Met Ser Ile Trp Trp
        195                 200                 205
Glu Asn Ala Asp Asp Asp Asp Lys Val Leu Ala Trp Ala Lys Asp Phe
    210                 215                 220
Trp Glu Thr Val Thr Ala Lys Ala Lys Lys Asp Gly Val Phe His Asp
225                 230                 235                 240
Tyr Val Tyr Met Asn Tyr Ala Ser Gln Tyr Gln Asp Val Ile Ala Gly
                245                 250                 255
Tyr Gly Ala Ala Asn Lys Ala Lys Leu Gln Ser Ile Ala Ala Arg Tyr
            260                 265                 270
Asp Pro Lys Gly Val Tyr Gln Thr Leu Gln Pro Gly Tyr Phe Lys Leu
        275                 280                 285
Ala Gly Ala Pro Ala Ser Asp Ser Leu
    290                 295
```

<210> 38460
<211> 75
<212> PRT
<213> A.fumigatus

<400> 38460

```
Tyr Gln Ser Tyr Phe Met Cys Ser Thr Asp Glu Glu Tyr Ile Ser Ala
1               5                  10                  15
Phe Ile Gly Tyr Tyr Tyr Tyr Leu Thr Phe Gln Ser Val Ile Leu Gly
            20                  25                  30
Arg Tyr Asn Pro Cys Thr Asn Asn Gly Tyr Asn Met Pro Gln Cys Ser
        35                  40                  45
His Ile Lys Arg Phe Leu Ile Tyr Arg Trp Val Phe Ile His Ile Asn
    50                  55                  60
Gln Val Asn Gln Tyr Ile Met His Val Tyr Thr
65                  70                  75
```

<210> 38461
<211> 269
<212> PRT
<213> A.fumigatus

<400> 38461
His Pro Pro Leu Arg Phe Phe Ser Thr Pro Ser Leu Ile Leu Ser Ala
1 5 10 15
Leu Trp Cys Ser Met Leu Arg Leu Pro Ala Phe Leu Gly Val Ile Cys
20 25 30
Ala Phe Ala Leu Gly Gln Thr Ser Lys Ala Ser Ser Ser Ala Phe Glu
35 40 45
Pro Asp Asn Phe Asp Val Asn Ala Ala Leu Tyr Asn Leu Gly Val Gly
50 55 60
Cys Ser Thr Ile Pro Ala Leu Lys Ala Leu Gln Pro Gln Phe Asn Gln
65 70 75 80
Asn Cys Leu Val Val Gln Leu Ser Val Thr Ser Ile Gly Lys Ser Arg
85 90 95
Thr Tyr Ile Arg Arg Thr Asp Val Ser Gln Cys Gly Ala Leu Gly Phe
100 105 110
Leu Tyr Gly Pro Ser Arg Ala Phe Ala Gln Asn Thr Thr Ala Tyr Ser
115 120 125
Asn Ala Thr Gly Ser Tyr Trp Ser Ala Gln Gln Glu Glu Val Arg Pro
130 135 140
Asp Cys Ile Phe Gln Pro Ser Val Asn Thr Asp Val Ser Met Ile Val
145 150 155 160
Leu Leu Ala Arg Tyr Thr Gly Cys Pro Phe Ala Ile Lys Ser Gly Gly
165 170 175
His Ala Ala Phe Ala Arg Ala Ser Ser Ile Gln Gly Gly Ile Thr Val
180 185 190
Leu Leu Lys Asp Leu Asn Thr Ile Thr Leu Asn Asp Asn Arg Ser Val
195 200 205
Val Ser Val Gly Pro Gly Asn Val Trp Val Gln Val Tyr Ser Ala Leu
210 215 220
Glu Pro Tyr Gly Leu Ala Ala Ile Gly Gly Arg Val Ser Thr Ile Gly
225 230 235 240
Val Gly Gly Leu Thr Thr Gly Gly Gly Ile Ser Phe Tyr Ser Asn Leu
245 250 255
Tyr Gly Trp Ala Cys Asp Asn Val Glu Ser Phe Glu Val
260 265

<210> 38462
<211> 157
<212> PRT
<213> A.fumigatus

<400> 38462
Arg Tyr Ser Ser Ile Leu Thr Gly Leu Pro Ala Gly Thr Tyr Gly Ser
1 5 10 15
Gly Asn Asn Trp Met Glu Ser Glu Trp His Val Gln Asn Ser Pro Phe
20 25 30
Pro Asn Leu Tyr Trp Ala Thr Thr Ser Trp Asn Met Gly Ala Ala Phe
35 40 45
Trp Pro Leu Ile Phe Val Pro Leu Thr Glu Ser Ser Gly Arg Met Pro
50 55 60
Gly Tyr Phe Val Ser Tyr Ile Ile Leu Val Ala Thr Leu Phe Gly Ser

65 70 75 80
Ala Phe Ala His Asn Phe Ala Thr Ile Val Val Thr Arg Phe Phe Gly
85 90 95
Gly Gly Ala Ser Ser Val Ser Ile Asn Ile Val Gly Gly Ser Ile Ser
100 105 110
Asp Val Trp Gln Gly Gly Lys Ala Arg Ser Leu Pro Met Ser Leu Phe
115 120 125
Gly Phe Thr Ser Val Ile Gly Ile Ala Leu Gly Pro Phe Ile Gly Ser
130 135 140
Ala Ile Val Gln Ile Lys Lys Asp Asp Pro Trp Arg Trp
145 150 155

<210> 38463
<211> 233
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (24)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38463
Thr Cys Pro Val Pro Lys Val Cys Leu Ser Val Trp Leu Gln Gly Gly
1 5 10 15
Gly Lys Lys Pro Gln Gly Leu Xaa His Leu Asp Leu Thr Ser Pro Ser
20 25 30
Ile Cys Leu Ser Tyr Tyr Met Thr Leu Phe Leu Glu Leu Phe Ile Ala
35 40 45
Ile Met Lys Glu Tyr Gln Gln Asp His Arg Ala Asp Ala Glu Leu Leu
50 55 60
Ser Ser Phe Ala Ala His Met Asn Phe Phe Ser Ala Lys Ser Ser Pro
65 70 75 80
Thr Ser Gln Ala Ser Lys Ala Ala Tyr Met Thr Ser Leu Cys Thr Asp
85 90 95
Ile Ala Leu Ala Ile Gln Met Leu Asp Asp Gly Phe Pro Gln Gln Thr
100 105 110
Ala Leu Ser Arg Pro Asn Ser Val Pro Asp Ser Pro Gly Leu Thr Thr
115 120 125
Thr Ser Thr Ala Ser Thr Phe Gly Pro Glu Ile Leu Glu Ser Ser Ser
130 135 140
Trp Pro Ala Gly Ile Pro Thr Ser Tyr Ile Gly Asp Pro Ser Trp Glu
145 150 155 160
Leu Ser Ser Phe Ala Thr Asp Gly Asn Leu Asn Met Lys Met His Glu
165 170 175
Thr Gln Ala Lys Ser Tyr Glu Gln Tyr Gly Leu Ser Ala Glu Ser Thr
180 185 190
Pro Thr Ala Gly Phe Ala Tyr Arg Ser Asp Leu Ala Gly Met Gly Ser
195 200 205
Met Glu Phe Asp Ala Met Leu Asp Thr Phe Ala Ser Tyr Asp His Val
210 215 220
Gly Ala Leu Leu His Ser Asp Arg Ile
225 230

<210> 38464
<211> 99

<212> PRT
<213> A.fumigatus

<400> 38464
Asp Ser Arg Gln Ile Pro Arg Ser Glu Ser Arg Leu Leu Gly Phe Ser
1 5 10 15
His Arg Cys Trp Gln Val Ser Leu Pro His Arg Gly Met Trp Ile Asn
20 25 30
Asp Arg Gly Cys Trp Thr Val Ser Tyr His Ile Met Tyr Ser Leu Gly
35 40 45
Asn Arg Val Thr Lys His Ser Pro Thr Arg Gly Tyr Ser Met Val Leu
50 55 60
Arg Ala Ala Met Thr Val Arg Leu Ala Ser Trp Leu Gly Leu Val Ser
65 70 75 80
Thr Met Gln Cys Ile Pro Gly Ala Val Val Gly Val Ala Leu Val Asn
85 90 95
Met Asp Leu

<210> 38465
<211> 93
<212> PRT
<213> A.fumigatus

<400> 38465
Leu Pro Ser Gly Pro Ile Cys Met His Asn Asn Pro Leu Trp Val Pro
1 5 10 15
Pro Tyr Lys Ile Gln Thr Ser Leu Leu His Trp Asn Asn Met His Glu
20 25 30
His Lys Leu His Ala Ala His Asn Pro Val Asp Gln Ala Phe Ile Ser
35 40 45
Leu Gln Ser Arg Ala Gln Arg Ser Gly Val Thr Thr Val Arg Arg Leu
50 55 60
Thr Gln Ile Asp Leu Asn Asn Phe Ile Ser Lys His Pro Pro Pro Ile
65 70 75 80
Val Ala Lys Leu Leu Asp Pro Thr Val Ile Thr Pro Arg
85 90

<210> 38466
<211> 192
<212> PRT
<213> A.fumigatus

<400> 38466
Ile Tyr Tyr Cys Met Leu Val Leu Ala Ile Val Gly Ala Gly Gly Ile
1 5 10 15
Tyr Thr Gly Thr Asn Pro Ser Tyr Thr Thr Arg Glu Leu Val His His
20 25 30
Phe Lys Ala Ala Asp Ala Lys Phe Val Val Ser Glu Pro Glu Ile Val
35 40 45
Thr Ser Ile Leu Ala Ala Val Lys Glu Arg Gly Ile Pro Glu Gly Asn
50 55 60
Leu Leu Ile Phe Asn Val Leu Gly Gln Glu Val Pro Ala Gly Arg Arg
65 70 75 80
Ser Trp Thr Asp Leu Phe Ser His Gly Glu Glu Asp Trp Val Ala Phe
85 90 95

```
His Asp Leu Gln Arg Ala Lys Glu Thr Thr Ala Ala Arg Leu Phe Ser
            100                 105                 110
Ser Gly Thr Thr Gly Leu Pro Lys Ala Val Thr Leu Thr His His Asn
        115                 120                 125
Leu Ile Ala Gln His Glu Leu Val Phe Glu Ala His Pro Arg Pro Tyr
    130                 135                 140
Gln Val Ser Arg Ile Thr Ala Met Pro Val Phe His Arg Arg Arg Gly
145                 150                 155                 160
Leu Cys Thr Arg Arg Arg His Gln Asn Arg Ala His His Leu His Asp
                165                 170                 175
Ala Pro Leu Ser Thr Ser Asn Arg Thr Trp Cys Gly Thr Arg Asn Thr
            180                 185                 190
```

<210> 38467
<211> 70
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (70)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38467

```
Thr Phe Phe Phe Arg Leu Leu Ile Asp Thr Pro Ser Lys Leu Ala Arg
1               5                   10                  15
Cys Val Asp His Val Pro Val Ile Phe Gly Glu Ile Val Pro Gln Ser
            20                  25                  30
Ile Cys Val Arg Tyr Gly Leu Pro Ile Gly Ala Trp Met Ala Pro Cys
        35                  40                  45
Val Leu Val Leu Met Tyr Ile Met Ser Pro Val Ala Trp Pro Leu Ala
    50                  55                  60
Lys Leu Leu Tyr Ser Xaa
65                  70
```

<210> 38468
<211> 99
<212> PRT
<213> A.fumigatus

<400> 38468

```
Phe Pro Ser Leu Arg Arg Thr Cys Val Cys Pro Leu Arg Thr Pro Ser
1               5                   10                  15
Pro Pro Thr Asn Thr Arg Pro Pro His Gln Pro Thr Val Pro Ile Pro
            20                  25                  30
Gln Val Gln Pro Gly Ser Pro Ser Pro Arg Pro Glu Gly Asn Ser Phe
        35                  40                  45
Leu His Cys Pro Pro Tyr Pro Trp Arg Ala Pro Cys Ala Cys Pro Ser
    50                  55                  60
Arg Thr Pro Ser Pro Pro Thr Phe Arg Asn Thr Arg Cys Pro Arg Leu
65                  70                  75                  80
Pro Tyr Ala Thr Ala Arg Ile Pro Ser Arg Lys Arg Gln His Leu Gly
                85                  90                  95
Lys Glu Glu
```

<210> 38469
<211> 900
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (417)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38469

```
Met Gly Asp Ile His Ser Gly Pro Val Ser Gly Pro Val Leu Leu Leu
1               5                  10                  15
Val Ser Gln Phe His Pro Pro Lys Ala Ser Leu Asp Arg Arg Thr Phe
            20                  25                  30
Thr Arg Ser Arg Leu Pro Val Ala Gly Ala Ser Leu Val Ile Leu Asp
        35                  40                  45
Thr Arg Val Val Phe Pro Leu Pro Pro Ala His Tyr Leu Ser Leu Leu
    50                  55                  60
Phe Cys Ser Leu Ser Leu Ser Leu Ser Leu Leu Leu Leu Ser Phe Ser
65                  70                  75                  80
Ala Lys Ser Ser His Ile Thr Ile Phe Gln Ser Ser Lys Ala Ile Ile
                85                  90                  95
Lys Gln Ile Leu Thr Arg Gln Ser Arg Tyr Leu His Ile Lys Glu Ser
            100                 105                 110
His Gln Gly Ala Thr Lys Arg Phe Ser Ser Leu Gly Asn Ile Ser Lys
        115                 120                 125
Asp Lys Asn Leu Val Leu Ser Asn Ser Phe Pro Ser Thr Thr Leu Pro
    130                 135                 140
Ser Thr Met Thr Ser His Val Glu Met Tyr Phe Leu Tyr Gly Glu Ala
145                 150                 155                 160
Tyr Asp Glu Thr Ala Pro Val Thr Arg Val Glu Ala Trp Ile Ser Gln
                165                 170                 175
Phe Ala Tyr Ala Asp Leu Thr Thr Gly Ala Ala Leu Ser Phe Ala Leu
            180                 185                 190
Val Thr Leu Leu Gly Val Met Ala Leu Phe Trp Glu Asp Leu Ala Pro
        195                 200                 205
Trp Ile Ser Ala Val Ala Lys Arg Leu Val Ser Pro Ile Leu Ala Val
    210                 215                 220
Val Ala Ala Ala Ser Ser Leu Val Met Gln Leu Val Ser Ile Arg Ser
225                 230                 235                 240
Arg Gln Glu Leu Gly Thr Ile Val Gln Gly Trp Val Lys Gln Pro Ile
                245                 250                 255
Val Asp Cys Arg Leu Val Arg Leu Val Ser Ala Val Val Ser Trp Trp
            260                 265                 270
Phe Pro Ser Asn Gln Pro Leu Thr Thr Val Cys Arg Leu Ala Gly Ser
        275                 280                 285
Phe Val Cys Gly Met Thr Ala Tyr Val Trp Leu Phe Phe Pro Leu Ser
    290                 295                 300
Gln Phe Leu Ser Gly Phe Ala Gly Gly Leu Val Thr Glu Thr Lys Glu
305                 310                 315                 320
Met Ser Leu Tyr Cys Met Gly Ile His Gly Arg Trp Thr Val Ala Ser
                325                 330                 335
Arg Leu Thr Trp Arg Gln Trp Gly Met Val Ala Phe Cys Asn Gly Glu
            340                 345                 350
Glu Thr Gly Leu Glu Leu Arg Ala Ile Ile Glu Asp Asp Trp Gln Leu
```

```
        355                 360                 365
Pro Arg Leu Phe Asp Leu Asp Gly Glu Ile His His Leu Arg Ile Leu
    370                 375                 380
Ala Phe Val Val Ala Ser Val Ser Leu Ala Ile Thr Ala Ala Trp Ser
385                 390                 395                 400
Phe Arg Ala Leu Ser Glu Thr Ala Leu Phe Ala Arg Val Val Val Val
                405                 410                 415
Xaa Gln Gln Pro Ser Ser Pro Gly Gln Arg Ala Asp His Val Ala Gly
            420                 425                 430
Ser Glu Thr Gln Leu Ser Gly Ser Ser Ile Asn Arg Arg Gln Asp Asp
        435                 440                 445
Leu Met Asn Leu Ile Ser Arg Tyr Glu Gly Ile Leu Ser Glu Lys Glu
    450                 455                 460
Arg Leu Leu Ser Ala Thr Thr Gln Lys Leu Arg Ala Thr Glu Gln Arg
465                 470                 475                 480
Leu Glu Asp Gly Trp Ala Gln Ala Lys Arg Leu Ala Ala Leu His Val
                485                 490                 495
Lys Arg Asp Glu Glu Thr Arg Ala Arg Glu Ser Thr Asp Val Ala Gln
            500                 505                 510
Leu Arg Arg Lys Leu Ala Glu Thr Glu Ala Arg Leu Ser Leu Ala His
        515                 520                 525
Gly Arg Ala Arg Ala Val Glu Asp Asp Ala Thr Ala Arg Val Arg Ser
    530                 535                 540
Leu Cys Asn Gln Val Ala Glu Leu Glu Gln Gln Leu Gln Ala Gln Arg
545                 550                 555                 560
Glu Gln Ala Gly Asn Ile Ser Leu Gly Glu Val His Ser Leu Arg Ala
                565                 570                 575
Glu Leu Glu Val Arg Asn Asp Gln Leu Val Ala Val Glu His Arg Leu
            580                 585                 590
Ala Ala Ala Glu Thr Arg Glu Arg Asp Ser Arg Gly Arg Ala Asn Asp
        595                 600                 605
Ser Glu Ala Glu Arg Arg Gln Leu Ala Asp Arg Val His Glu Leu Asp
    610                 615                 620
Ala Gln Ala Gln Glu Leu Thr Ala Gln Asn Glu Val Leu Gln Ala Leu
625                 630                 635                 640
Cys Asp Ser Leu Ser Arg Glu Cys Gly Ser Leu Ala Ala Ile Gln Arg
                645                 650                 655
Glu Arg Asp Asn Ala Phe Gly Leu Ile Ser Ala Leu Gln His Glu Leu
            660                 665                 670
Val Ser Thr Arg Ala Thr Ala Glu Thr Ala Phe Arg Glu Ser Gln Glu
        675                 680                 685
Ser Leu Ala Gln Thr Arg Ala Ala Glu Ser Thr Leu Arg Gln Ser Met
    690                 695                 700
Gln Glu Leu Arg His Thr Cys Asp Leu Thr Leu Ala Gln Glu Arg Ala
705                 710                 715                 720
Ala Ser Ala Arg Ala Gln Ala Arg Ala Ser Glu Leu Gly Ala Glu Val
                725                 730                 735
Glu Asp Leu Gln Thr Lys Val Gly Leu Ala Met Arg Asp Ala Gln Arg
            740                 745                 750
Ala Gln Glu Arg Ala Glu Ser Ala Glu Arg Thr Ile Gly Ile Leu Gln
        755                 760                 765
Thr Arg Leu Thr Arg His Glu Asp Ala Ala Arg Gly Ala Leu Gln Glu
    770                 775                 780
Ile Pro Lys Arg Gln Ile Gly Asn Leu Gly Ser Ile Ser Thr Ala Leu
785                 790                 795                 800
Ala Glu Ser Glu Val Lys Val Ala Gln Gln Gln Ala Glu Ile Asn Ala
```

```
                805                 810                 815
Leu Arg Cys Gln Val Glu Gln Phe Lys Leu Gln Gly Pro Ser Gly Pro
            820                 825                 830
Ile Asp Lys Ala Val Gln Glu Asp Val Gln Lys Leu Arg Ala Ala Leu
        835                 840                 845
Asp Arg Val Arg Arg Glu Arg Thr Glu Asp Gln Leu Arg Trp Asp Lys
    850                 855                 860
Arg Val Arg Glu Leu Glu Glu Asp Asn Arg Lys Leu Arg Val Ser Leu
865                 870                 875                 880
Ser Asn Ala Glu Ala Ala Ser Gly Arg Arg Pro Gly Gly Arg Arg Pro
                885                 890                 895
Pro Thr Leu Pro
            900
```

<210> 38470
<211> 272
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (268),(271)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38470

```
Arg Thr Phe Ser Thr Asn Ser Thr Asp Thr Ala Leu Ser Pro His Asp
1               5                   10                  15
Asp Ser Val Ala Met Gln Glu Lys Ser Thr Thr Ile Ala Ala Tyr Ala
            20                  25                  30
Ala Gly Ala Ser Leu Ala Ala Val Ala Leu Phe Tyr Val Phe Gly Pro
        35                  40                  45
Asn Tyr Thr Ile Asp Gly Asp Asp Ser Asn Asp Ser Asn Arg Lys Lys
    50                  55                  60
Ser Ile Val Gly Leu Ser Asn Pro Ala Asn Asp Cys Phe Ile Asn Ser
65                  70                  75                  80
Val Leu Gln Ala Leu Ala Gly Leu Gly Asp Leu Arg Val Tyr Leu Ile
                85                  90                  95
Arg Glu Leu His Arg Arg Glu Leu Asp Gly Pro Asp Val Tyr Asn Ser
            100                 105                 110
Leu Pro Glu Ala Asn Glu Thr Pro Arg Gly Met Thr Pro Glu Arg Ile
        115                 120                 125
Arg Glu Leu Gln Gln Gly Thr Ile Thr Arg Ala Leu Lys Glu Met Leu
    130                 135                 140
Asp Arg Leu Asn Glu Arg Pro Ile Tyr Lys Lys Thr Ile Thr Asn Arg
145                 150                 155                 160
Ala Phe Ile Gln Ala Leu Glu Tyr Ala Phe Arg Thr Arg Ile Ser Arg
                165                 170                 175
Asn Gln Gln Asp Ala Gln Glu Phe Leu Gln Ile Val Ala Glu Arg Leu
            180                 185                 190
Cys Asp Glu Tyr His Ala Gly Leu Lys Ala Arg Gln Arg Ala Gln Gly
        195                 200                 205
Leu Pro Ala Thr Leu Pro Gly Ser Gly Gly Glu Glu Ser Val Gln Ser
    210                 215                 220
Ser Ala Val Glu Lys Gly Ser Ala Glu Ile Glu Val Arg Ile Asp Asp
225                 230                 235                 240
Gly Thr Glu Met Gly Leu Pro Ala Ile Ile Asp Asn Lys Leu Lys Glu
```

```
                245                 250                 255
Ile Asp Lys Arg Leu His His Gly Gly Arg Pro Xaa Arg Ala Xaa His
            260                 265                 270
```

<210> 38471
<211> 107
<212> PRT
<213> A.fumigatus

<400> 38471

```
Gly Val Gly Ala Val Lys Ser Arg Phe Val His Ile Pro Phe Phe Gly
1               5                   10                  15
Arg His Ser His Ala Ile Val Val Gln Ile Gly Ala Pro Leu Val Glu
            20                  25                  30
Glu Gly Ser Trp Val Lys Asp Ala Pro Lys Asp Ala Tyr Ile Leu Gly
        35                  40                  45
Leu Lys Glu Leu Pro Glu Asp Asp Phe Pro Leu Glu His Val His Ile
    50                  55                  60
Ser Phe Ala His Cys Tyr Lys Gln Gln Ala Gly Trp Glu Lys Val Leu
65                  70                  75                  80
Ser Arg Trp Pro Arg Gly Gly Gly Thr Leu Leu Asp Leu Glu Phe Leu
                85                  90                  95
Thr Asp Glu Thr Gly Arg Arg Val Ala Gly Gly
            100                 105
```

<210> 38472
<211> 84
<212> PRT
<213> A.fumigatus

<400> 38472

```
Asn Tyr Leu Gly Leu Leu Cys Val Thr Tyr Trp Gly Arg Leu Thr Leu
1               5                   10                  15
Cys Thr Gly Ser Ala Leu Ala Ile Lys Asn Trp Ala Trp Gln Leu Thr
            20                  25                  30
His Pro Glu Gly Glu Pro Leu Pro Gly Glu Thr Pro Tyr Ala Asn Gln
        35                  40                  45
Asp Leu Leu Ile Glu Ser Val Lys Glu Ser Leu Glu Ser Gly Lys Lys
    50                  55                  60
Leu Ser Gly Arg Pro Pro Lys Val Leu Val Ile Gly Ala Val Ser Val
65                  70                  75                  80
His Leu Met Ser
```

<210> 38473
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38473

```
Ser Ser Phe Leu Gly Gly Pro Phe Arg Glu Ile Val Glu Asp Ala Asp
1               5                   10                  15
Ile Phe Ile Asn Cys Ile Tyr Leu Ser Ala Lys Ile Pro Pro Phe Val
            20                  25                  30
Asn Thr Glu Thr Leu Ser Ser Pro Asn Arg Arg Leu Ser Val Ile Cys
        35                  40                  45
```

```
Asp Val Ser Ala Asp Thr Tyr Val Ser Leu Trp Thr Leu Glu Glu Lys
    50                  55                  60
Gly Arg Ser His
65

<210> 38474
<211> 102
<212> PRT
<213> A.fumigatus

<400> 38474
His Ser Gly Leu Val Leu Leu Arg Thr Asn Pro Asn Asn Pro Ile Pro
1               5                   10                  15
Val Tyr Ser Ile Thr Thr Thr Phe Asp Lys Pro Thr Val Thr Val Pro
            20                  25                  30
Leu Pro Glu Leu Ala Gln Gly Pro Pro Leu Ser Val Ile Ser Ile Asp
        35                  40                  45
His Leu Pro Ser Leu Leu Pro Arg Glu Ser Ser Glu Met Phe Ser Glu
    50                  55                  60
Ala Leu Leu Pro Ser Leu Leu Gln Leu Lys Asp Arg Lys Asn Ala Arg
65                  70                  75                  80
Val Trp Lys Gln Ala Glu Asp Leu Phe Asn Glu Lys Val Ala Thr Leu
                85                  90                  95
Pro Glu Ser Met Arg Ala
            100

<210> 38475
<211> 123
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (8)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38475
Trp Ile Ala Cys Pro Ala Ser Xaa Arg Gly Arg Arg Ser Glu Pro Leu
1               5                   10                  15
His Gly Thr Val Ile Asp Leu Phe Asp Gln Trp Ile Lys Lys Ser Pro
            20                  25                  30
Glu Arg Val Ala Ala Glu Trp Gln Gly Lys Ser Leu Thr Tyr Gly Ala
        35                  40                  45
Leu His Asp Ala Ser Leu His Val Ser Arg Ala Leu Leu Leu Ala Gly
    50                  55                  60
Val Leu Pro Arg Ala Arg Ala Pro Leu Leu Thr Gln Met Ser Leu Glu
65                  70                  75                  80
Ile Leu Pro Pro Val Ile Gly Ile Leu Arg Val Gly Ser Cys Tyr Val
                85                  90                  95
Pro Ile Asp Val Ala Ala Trp Ser Arg Val Arg Ile Glu Ala Arg Ala
            100                 105                 110
Leu Arg Ala Gly Leu Pro Gly Ser Gly His His
        115                 120

<210> 38476
<211> 85
```

<212> PRT
<213> A.fumigatus

<400> 38476
Leu Gly Ser Gly Thr Ser Leu Leu Lys Gly Gly Pro Ala Ser Leu Phe
1 5 10 15
Ile Glu Tyr Leu Ile Ser Ser Ser Ile Leu Trp Ser Val Leu Gln Cys
20 25 30
Ile Gly Glu Met Ala Val Val Tyr Pro Leu Leu Ser Ala Phe Val Gln
35 40 45
Trp Thr Met Ile Phe Ile Ile Pro Ala Ala Gly Phe Ala Leu Gly Trp
50 55 60
Gly Tyr Trp Phe Ser Tyr Trp Ile Thr Ile Thr Asn Glu Leu Gln Val
65 70 75 80
Gln Ile Thr Thr Leu
85

<210> 38477
<211> 84
<212> PRT
<213> A.fumigatus

<400> 38477
Ser Phe Ile Asn Gly Phe Glu Gly Phe Ile Thr Ile Leu Pro Thr Cys
1 5 10 15
Val Phe Ala Met Ala Gly Ser Glu Asn Ala Ala Leu Val Ala Thr Glu
20 25 30
Val Ala Asn Pro Arg Arg Ser Val Pro Lys Ala Val Thr Ser Thr Trp
35 40 45
Leu Arg Pro Gly Leu Phe Tyr Ile Leu Gly Ser Leu Met Ile Thr Leu
50 55 60
Thr Val Asp Pro Lys Asp Pro Asn Leu Phe Gly Gly Phe Gly Ser Asn
65 70 75 80
Asp Ser Pro Leu

<210> 38478
<211> 119
<212> PRT
<213> A.fumigatus

<400> 38478
Gly Asp Glu Gly Val Gln Ser Trp Gln Gly Pro Asn Leu Arg Ala Trp
1 5 10 15
Phe Gly Cys Trp Ile Ser Gln Gln Ser Tyr Ile Asn Ser Lys Lys Asn
20 25 30
Ile Lys Trp Asn Gly Glu Arg Phe Tyr Arg Thr Gly Asp Leu Ala Arg
35 40 45
Thr Thr Glu Asp Gly Gln Leu Ile Trp Ala Gly Cys Ala Asp Ser Leu
50 55 60
Val Lys Asn Arg Gly Phe Leu Ile Asn Met Glu Thr Glu Val Glu Pro
65 70 75 80
Ala Ile Gln Ala Tyr Pro Gln Val Asn Leu Ser Val Ala Phe Gln Trp
85 90 95
Arg Asp Arg Leu Val Cys Cys Val Gln Pro Ser Thr Val Asp Val Gly
100 105 110

```
Arg Thr Thr Gln Ile Tyr Ala
        115

<210> 38479
<211> 98
<212> PRT
<213> A.fumigatus

<400> 38479
Arg Glu Gln Val Gln Tyr Ala Gly Gly Pro Val Tyr Thr Leu Ala Leu
1               5                  10                  15
Leu Gly Phe Lys Val Ser Leu Leu Ala Ser Tyr Leu Arg Ile Gly Gly
            20                  25                  30
Phe Val Lys Ala Tyr Arg Thr Val Ile Ile Ala Val Ile Val Ala Cys
        35                  40                  45
Val Cys Asn Gln Leu Ala Phe Thr Phe Val Leu Cys Phe Ala Cys Arg
    50                  55                  60
Pro Ile Ala Arg Gln Trp Asp Met Ser Ile Gln Gly Ser Cys Ile Asp
65                  70                  75                  80
Thr Val Ala Ser Tyr Tyr Gly Arg Ser Ala Arg Ser Gly Ala Ala Val
                85                  90                  95
Pro Asp


<210> 38480
<211> 163
<212> PRT
<213> A.fumigatus

<400> 38480
Ile Val Phe Val Asp His Gly Pro Leu Leu His Gln Arg His Leu Arg
1               5                  10                  15
Pro Val Pro Pro Gly Leu Glu Ala Leu His Ala Gly Gln Leu Arg Gly
            20                  25                  30
Leu Arg Gly Gln Arg Glu Gln Thr Arg Ala His Thr His Gly His Ala
        35                  40                  45
Val Arg His Glu Thr Gln His Pro Arg Gly Cys Pro Gln His Arg Ser
    50                  55                  60
Arg Leu Gln Arg Gln Val His Gly Gly Arg Arg Ser Gly Asp Leu Asp
65                  70                  75                  80
Ala Pro Pro Gln Gly His Arg Asp Gln Gly Leu Val Arg Pro Ala Leu
                85                  90                  95
Pro Gly Gln Gly Asp Gln Gly Gly Arg Arg Arg Ala Arg His Arg Gly
            100                 105                 110
Val Pro Gly Arg Arg His Glu Arg Pro Arg Gly Arg Arg Arg Arg Val
        115                 120                 125
Ser Asp Arg Arg Thr Gly Arg Arg Leu Tyr Pro Arg Arg Arg Ala Leu
    130                 135                 140
Gly Ala Gly Val Gln Ala Arg Thr Gly Gly Arg Pro Gly Pro Arg Val
145                 150                 155                 160
Gly Gly Asp


<210> 38481
<211> 284
<212> PRT
```

<213> A.fumigatus

<400> 38481

```
Arg Thr Gly Gln Phe Pro Arg Gly Gln Pro Arg Gln Arg Ala Arg Gly
1               5                  10                  15
Ser Val Leu Gly Ala Glu Arg Arg Arg Arg Arg His Leu Arg Gly Gly
            20                  25                  30
Leu Val Asp Asp Val Gln Gly Ala Arg Gly Asp Ala Gly Val Gly Leu
        35                  40                  45
Glu Pro Asp Val Tyr Gln Cys Arg His Leu Ala Gly Tyr Val Leu Arg
    50                  55                  60
Gly Gly Cys Ala Val Pro Phe Asp Ala Ala Gly His Arg Arg Arg Arg
65                  70                  75                  80
Arg His Glu Cys Leu Val Phe His Gln His Gln Leu Leu His Leu Ala
                85                  90                  95
Ala Asp Gly Ala Glu Tyr Pro Gly Arg Gln Ala Ala Gly Ala Gly Pro
            100                 105                 110
Ala Val His Arg Arg Thr Asp Pro Ala Gly Asp His Val Tyr His Leu
        115                 120                 125
Arg Gly Ala Val Arg Gln Leu Leu Gly Gly Val Arg Gly His Ala Glu
    130                 135                 140
Pro Asp Arg Gly Arg His Arg Ala Val Arg Arg Leu Ala Asp Ser Pro
145                 150                 155                 160
Val Gly Arg Ala Asp Gln Gln Arg Arg Ala His Arg Arg Val Pro Arg
                165                 170                 175
His His Val Arg Trp Arg His Leu His Arg Arg Gly Thr Gln Arg Leu
            180                 185                 190
Asp Arg Gly His Arg Arg Arg Leu Gln Arg Gly Ala Ala Arg Leu Ala
        195                 200                 205
Arg His Ala Asp Arg His Arg His His Asp Ala Leu Glu Leu Asp Arg
    210                 215                 220
Ser Asp Gly Arg His Asp Arg Ala Ala Ala Gln Asp Asp Gly Arg Val
225                 230                 235                 240
His Ser Pro Ala Gly Gly Val Gly Ala Ala Val Arg Gly Val Ser Gln
                245                 250                 255
Arg Gly Gly Phe Pro Ala Ala Glu Leu Pro Asp Gly Val Leu Trp Cys
            260                 265                 270
Glu Leu Ser Glu Thr Ala Gly His Gln Gly Gln Val
        275                 280
```

<210> 38482
<211> 120
<212> PRT
<213> A.fumigatus

<400> 38482

```
Pro Gly Thr Ser Leu Ala Phe Asp Cys Ile Ile Ile Ala Leu Pro Leu
1               5                  10                  15
Pro Val Leu Ile Thr Leu Arg Leu Gln Arg Arg Gln Lys Ala Ala Leu
            20                  25                  30
Leu Ala Val Phe Ala Leu Gly Phe Phe Val Thr Ile Ile Gln Ile Ile
        35                  40                  45
Arg Ile Phe Thr Ile Lys Asn Leu Lys Thr Tyr Thr Asp Ser Gln Pro
    50                  55                  60
Ile Val Leu Trp Ser Val Ile Glu Ile Ser Leu Gly Val Cys Leu Pro
65                  70                  75                  80
```

```
His Pro Phe Pro Pro Ser Ser Pro Asn His His Leu Leu Arg Ser Ser
                85                  90                  95
His Arg Ser Leu Gln Ser Ser Leu Ala Thr Leu Leu Ser Leu Arg Lys
            100                 105                 110
Leu Ala Asn Leu Leu Thr Gly Arg
        115                 120
```

<210> 38483
<211> 486
<212> PRT
<213> A.fumigatus

<400> 38483

```
Glu Thr Asp Lys Ala Ser Tyr Glu Ser Ser Ser Ser Ile Met Gly Pro
1               5                  10                  15
Phe Phe Thr Asn Gly Thr Cys Asp Pro Phe His Pro Val Ser Lys Pro
            20                  25                  30
Cys Thr Leu Gly Asn Tyr Val Val Tyr Ala Val Asn Val Ser Arg Pro
        35                  40                  45
Glu His Ile Arg Thr Ala Met Gln Phe Ala Thr Lys His Asn Ile Arg
    50                  55                  60
Val Val Val Arg Asn Thr Gly His Asp Tyr Asn Gly Lys Ser Thr Gly
65                  70                  75                  80
Ala Gly Ala Leu Ala Ile Trp Thr His His Leu Lys Asp Ile Glu Ile
                85                  90                  95
Lys Asp Trp Ser Asp Gln His Tyr Gln Gly Lys Ala Ile Lys Val Gly
            100                 105                 110
Ala Gly Val Gln Gly Ile Glu Ala Tyr Arg Ala Ala Asp Thr Asn Gly
        115                 120                 125
Leu Glu Val Val Gly Gly Glu Cys Pro Thr Val Gly Leu Ala Gly Gly
    130                 135                 140
Tyr Thr Gln Gly Gly Gly His Ser Ala Leu Ala Ser Arg His Gly Leu
145                 150                 155                 160
Ala Ala Asp Gln Val Leu Glu Trp Glu Val Ile Asp Gly Gln Gly Asn
                165                 170                 175
Phe Leu Val Ala Asn Arg Asp Asn Glu His Ala Asp Leu Tyr Trp Ala
            180                 185                 190
Leu Ser Gly Gly Gly Gly Gly Thr Tyr Gly Val Val Trp Ser Met Thr
        195                 200                 205
Ser Lys Ala His Ala Gly Thr Pro Val Ser Gly Leu Asn Leu Thr Phe
    210                 215                 220
Thr Asn Ala Gly Ile Ser Gln Asp Thr Phe Tyr Glu Ala Val Ala Leu
225                 230                 235                 240
Tyr His Ser Thr Leu Pro Ala Ile Val Asp Ala Gly Ala Met Ser Val
                245                 250                 255
Trp Tyr Phe Thr Asn Thr Ser Phe Ser Ile Ser Pro Leu Thr Gly Pro
            260                 265                 270
Asn Ile Pro Val Ala Lys Leu Arg Glu Leu Val Arg Pro Phe Thr Asp
        275                 280                 285
Gly Leu Thr Arg Leu Gly Ile Thr Tyr Thr Thr Tyr Ala Ala Gln Phe
    290                 295                 300
Asp Ser Tyr Leu Ala Glu Phe Glu Ala Met Gln Ser Pro Ile Glu Val
305                 310                 315                 320
Gly Ile Ala Gln Tyr Gly Gly Trp Leu Ile Pro Arg Ser Val Val Gln
                325                 330                 335
Thr Asn Asn Ala Glu Leu Thr Ala Ala Tyr Arg Ala Ile Thr Ser Asp
```

```
            340                 345                 350
Gly Ala Thr Phe Ile Gly Val Gly Leu Asn Val Ser Thr Ala Val Thr
        355                 360                 365
Gly Asp Val Ser Asn Ala Val Leu Pro Ala Trp Arg Asp Thr Leu Ile
    370                 375                 380
Asp Thr Val Ile Thr Thr Pro Trp Asn Trp Thr Ala Pro Thr Ala Asp
385                 390                 395                 400
Met Ile Ala Leu Gln His Lys Met Thr Asp Glu Tyr Ile Pro Arg Leu
                405                 410                 415
Glu Ala Leu Ala Pro Gln Ser Gly Ala Tyr Leu Asn Glu Ala Asp Phe
            420                 425                 430
Arg Gln Pro Asn Phe Gln Thr Ala Phe Tyr Gly Ala Asn Tyr Gln Lys
        435                 440                 445
Leu Arg Ala Ile Lys Ala Lys Tyr Asp Pro Asn Ser Leu Phe Tyr Gly
    450                 455                 460
Thr Thr Ala Val Gly Ser Asp Glu Trp Thr Val Thr Ser Asp Gly His
465                 470                 475                 480
Leu Cys Lys Ala Thr Pro
                485
```

<210> 38484
<211> 99
<212> PRT
<213> A.fumigatus

<400> 38484

```
Ile Pro Arg Cys Asn Ala Ser Val Ala Ser Met Gly Trp Val Tyr Asn
1               5                   10                  15
Leu Lys Thr Pro Asp Pro His Ser Gln Val Pro Arg Val Ile Ala Ile
            20                  25                  30
Cys Leu Val Phe Pro Ile Val Ala Phe Leu Ala Val Leu Leu Arg Leu
        35                  40                  45
Tyr Val Arg Ile His Thr Lys Arg Ala Ala Gly Val Asp Asp Tyr Ala
    50                  55                  60
Ala Leu Phe Ser Ser Ile Leu Ala Ile Ala Tyr Gly Ala Ile Ser Ile
65                  70                  75                  80
Ala Arg Glu Ser Leu Gln His Asn Thr Gly Val Ala Met Ala Met Met
                85                  90                  95
Leu Thr Gly
```

<210> 38485
<211> 70
<212> PRT
<213> A.fumigatus

<400> 38485

```
Gln Val Lys Gln Thr Lys Asn Pro His Pro Asn Val Asp Ala Ala Ser
1               5                   10                  15
Gly Val Leu Phe Tyr His Tyr Gly Phe Gln Gln Pro Leu Tyr Tyr Thr
            20                  25                  30
Val Thr Phe Gly Val Ser Arg Ala Leu Gly Pro Leu Val Gln Leu Ile
        35                  40                  45
Trp Asp Arg Ala Leu Gly Leu Pro Ile Glu Arg Pro Lys Ser Ile Asn
    50                  55                  60
Leu Leu Gly Leu Lys Lys
```

65 70

<210> 38486
<211> 114
<212> PRT
<213> A.fumigatus

<400> 38486
Thr Ser Gly Ser Ser Pro Thr Pro Ala Ser Pro Arg Ala Pro Trp Thr
1 5 10 15
Ser Ser Thr Arg Pro Pro Arg Arg Cys Arg Arg Arg Arg Arg Ser Ala
20 25 30
Pro Ser Thr Asp Pro Arg Ala Arg Cys Arg Gly Trp Pro Arg Gly Asn
35 40 45
Cys Pro Val Arg Gln Ser Pro Pro Thr Arg Gly Pro Gly Arg Pro Pro
50 55 60
Val Arg Ala Trp Thr Pro Ala Pro Ser Ala Arg Arg Leu Gly Tyr Ser
65 70 75 80
Arg Arg Pro Val Arg Arg Ser Asp Thr Arg Arg Arg Arg Pro Arg Gly
85 90 95
Arg Ser Cys Arg Arg Pro Gly Thr Pro Arg Cys Leu Ala Arg Arg Arg
100 105 110
Pro Pro

<210> 38487
<211> 506
<212> PRT
<213> A.fumigatus

<400> 38487
Ser Ile Ala Pro Ser His Ile Leu Leu Gln Val Tyr Thr Val Arg Leu
1 5 10 15
Pro Tyr Gly Leu Trp Arg Gly Leu Ala Gln Val Ser Ile Arg Arg Asp
20 25 30
Gly Pro Leu Val Arg Ser His Ser Gly Arg Pro Ile Lys Gln Ala Ile
35 40 45
Arg Ile Ile Leu Gly Leu Asp Gly Pro Gln Phe Leu Ile Val Arg Thr
50 55 60
Ile Lys Arg Arg Leu Glu Val Arg Leu Pro Glu Ile Arg Leu Val Glu
65 70 75 80
Ile Arg Pro Gly Leu Arg Arg Gln Arg Leu Gln Pro Gly Asn Val Leu
85 90 95
Val Arg His Leu Val Leu Gln Arg Asp His Val Gly Arg Arg Ser Gly
100 105 110
Pro Val Pro Gly Arg Arg Asp Asp Gly Val Asp Gln Arg Val Ala Pro
115 120 125
Gly Gly Gln His Arg Val Gly Asp Val Ala Gly Asp Arg Gly Arg Asp
130 135 140
Val Glu Ser His Ala Asp Glu Gly Gly Ala Ile Gly Arg Asp Gly Ala
145 150 155 160
Val Arg Gly Gly Glu Leu Gly Val Val Gly Leu His Asp Arg Pro Gly
165 170 175
Asn Gln Pro Ala Ala Val Leu Arg Asp Ala Asp Leu Asp Arg Ala Leu
180 185 190
His Gly Leu Glu Leu Arg Gln Val Ala Val Glu Leu Arg Arg Val Gly

```
        195                 200                 205
Gly Ile Arg Asp Pro Gln Pro Gly Gln Ser Val Gly Glu Arg Pro Asp
    210                 215                 220
Gln Leu Pro Gln Leu Gly Asp Arg Asp Ile Arg Pro Arg Gln Arg Arg
225                 230                 235                 240
Asp Gly Glu Ala Gly Val Gly Glu Ile Pro Asp Thr His Gly Ala Gly
                245                 250                 255
Val Asp Asp Gly Arg Gln Arg Arg Met Val Gln Arg Asn Arg Leu Val
            260                 265                 270
Glu Arg Ile Leu Arg Asp Ala Gly Ile Gly Lys Arg Gln Val Gln Ala
        275                 280                 285
Arg His Arg Arg Pro Arg Val Arg Leu Gly Arg His Arg Pro Asp His
    290                 295                 300
Pro Val Gly Ala Ala Ala Ala Ala Ala Gln Arg Pro Val Gln Ile Arg
305                 310                 315                 320
Val Leu Val Val Ala Val Gly His Glu Glu Ile Ala Leu Ser Val Asn
                325                 330                 335
His Leu Pro Leu Glu Asp Leu Val Gly Arg Gln Ser Val Pro Gly Arg
            340                 345                 350
Gln Arg Arg Val Pro Ala Ala Leu Gly Ile Ala Ala Gly Gln Ser Asp
        355                 360                 365
Gly Arg Thr Leu Ala Ala Asp Asp Leu Glu Ala Val Arg Val Gly Gly
    370                 375                 380
Pro Val Arg Leu Asp Ala Leu His Ala Gly Ala His Leu Asp Arg Leu
385                 390                 395                 400
Ala Leu Val Val Leu Val Gly Pro Val Leu Asp Leu Asp Val Leu Glu
                405                 410                 415
Val Val Arg Pro Asp Arg Gln Ser Ala Gly Pro Arg Gly Leu Ala Val
            420                 425                 430
Val Val Val Thr Gly Val Ala Asp Asn His Ala Asp Val Val Phe Arg
        435                 440                 445
Gly Glu Leu His Gly Arg Ala Tyr Val Leu Gly Ser Ala His Val Asp
    450                 455                 460
Arg Val Asp His Val Val Ala Gln Arg Ala Gly Leu Arg Asp Arg Val
465                 470                 475                 480
Glu Arg Val Ala Gly Ala Val Gly Glu Glu Gly Ala His Asp Arg Arg
                485                 490                 495
Arg Arg Phe Ile Ala Cys Phe Val Ser Phe
            500                 505
```

<210> 38488
<211> 405
<212> PRT
<213> A.fumigatus

<400> 38488

```
Pro Ala Gly Ser Phe Gln Pro Arg Gly Glu Asp Arg Tyr Tyr Lys Ile
1               5                   10                  15
Glu Pro Thr Gln Arg Thr Ala Glu Gln Lys Thr Leu Glu Thr Gly Leu
            20                  25                  30
Ser Pro Lys Glu Glu Ile Ala Ile Ala Ser Lys Leu Ile Thr Pro Leu
        35                  40                  45
Glu Gly Leu Glu Gln Tyr Gly Tyr Val Thr Arg Lys Pro Thr Lys Glu
    50                  55                  60
Glu Val Glu Asn Ala Arg Arg Gly Val Ser Glu Ser Lys Gly Trp Glu
65                  70                  75                  80
```

```
Lys Cys Asp Arg Cys Gly Gly Arg Phe Gln Val Phe Pro Gly Arg Arg
                85                  90                  95
Glu Asp Gly Ser Leu Thr Thr Gly Gly Gln Cys Thr Tyr His Pro Gly
            100                 105                 110
Lys Pro Tyr Tyr Pro Pro Arg Arg Gln Thr Asp His Ile Thr Gly Ala
        115                 120                 125
Arg Asp Ala Tyr Phe Pro Cys Cys Asn Glu Ser Ile Gly Thr Ser Ser
    130                 135                 140
Gly Cys Thr Lys Gly Asn Thr His Val Phe Lys Val Ser Glu Ser Lys
145                 150                 155                 160
Arg Leu Ala Ser Ile Leu Gln Phe Glu Glu Thr Pro Thr Gln Ala Asp
                165                 170                 175
Lys Gly Pro Gln Gln Pro Val Cys Phe Asp Cys Glu Met Gly Tyr Thr
            180                 185                 190
Thr Leu Gly Leu Glu Leu Ile Arg Leu Thr Ala Val Ser Trp Pro Gln
        195                 200                 205
Gly Lys Leu Leu Leu Asp Ile Leu Val Arg Pro Met Gly Glu Ile Leu
    210                 215                 220
Asp Leu Asn Ser Arg Phe Ser Gly Val Phe Pro Glu His Tyr Gln Lys
225                 230                 235                 240
Ala Ile Pro Tyr Lys Ser Thr Ser Ser Pro Ser Thr Thr Gly Asp Gly
                245                 250                 255
Ala Leu Gln Val Val Glu Ser Pro Ala Ala Ala Arg Ala Leu Leu Phe
            260                 265                 270
Lys Phe Leu Gln Pro Asp Thr Pro Leu Ile Gly His Ala Ile Asp Asn
        275                 280                 285
Asp Leu Asn Ala Cys Arg Ile Ile His Pro Thr Ile Ile Asp Thr Val
    290                 295                 300
Leu Leu Tyr Pro His Pro Arg Gly Leu Pro Ile Arg Met Gly Leu Lys
305                 310                 315                 320
Ala Leu Val Lys Lys Tyr Leu Asp Arg Asp Ile Gln Thr Lys Gly Ser
                325                 330                 335
Gln Gly His Asp Ser Lys Glu Asp Ala Ile Ala Thr Gly Asp Leu Val
            340                 345                 350
Arg Val Lys Ala Ala Glu Thr Trp Lys Ile Leu Lys Ser Lys Gly Trp
        355                 360                 365
Arg Ile Glu Gly Ser Lys Leu Ile Pro Pro Pro Gly Ala Lys Gly Ala
    370                 375                 380
Ser Glu Asp Ser Lys Leu Gly Pro Gly Ala Gly His Lys Arg Lys Asp
385                 390                 395                 400
Thr Glu Val Met Pro
                405
```

<210> 38489
<211> 82
<212> PRT
<213> A.fumigatus

<400> 38489

```
Thr Thr Glu Asn Trp Ala Ile Leu Tyr Tyr Ser Asn Met Arg Arg Trp
1               5                   10                  15
Leu Ser Cys Leu His Asp Ala Met Leu Thr Asn Leu Leu Leu Cys His
            20                  25                  30
Arg His Val Val Leu Ser Ser Gly Trp Gln Leu Val Ser Glu Leu Asp
        35                  40                  45
Asn Cys Gly Asp Phe Tyr Asn Asn Asp Cys Phe Arg Glu Ser Asp Met
```

```
    50                  55                  60
Ile Leu Asp Ala Phe Ile Ala Pro Pro Asp Gln Leu Ala Pro Arg Trp
65                  70                  75                  80
Thr Cys
```

<210> 38490
<211> 100
<212> PRT
<213> A.fumigatus

<400> 38490

```
His Leu Arg Ser Asp Phe Ala Val Ile Tyr Leu Cys Asp Ile Asp Glu
1               5                   10                  15
Val Pro Glu Phe Asn Ser Met Tyr Glu Leu Phe Asp Pro Met Thr Ile
            20                  25                  30
Met Phe Phe Trp Arg Asn Lys His Met Met Cys Asp Phe Gly Thr Gly
        35                  40                  45
Asn Asn Asn Lys Leu Asn Trp Val Leu Glu Asp Lys Gln Glu Leu Ile
    50                  55                  60
Asp Ile Ile Glu Thr Ile Tyr Lys Gly Ala Lys Lys Gly Arg Gly Leu
65                  70                  75                  80
Val Val Ser Pro Lys Gly Gln His Ser Leu Leu Leu Arg Ile Ser Phe
                85                  90                  95
Gly Leu Val Tyr
            100
```

<210> 38491
<211> 66
<212> PRT
<213> A.fumigatus

<400> 38491

```
Tyr Ile Ile Asn Ala Ser Gln Pro Ala Ser Asp Lys Ile Phe Asp Val
1               5                   10                  15
Ser Ala Phe Glu Lys Phe Leu His Asp Arg Ile Lys Val Glu Gly Arg
            20                  25                  30
Val Gly Asn Leu Gly Asp Asn Val Val Ile Ser Gln Val Gly Glu Gly
        35                  40                  45
Lys Ile Glu Val Val Thr His Ile Pro Phe Ser Gly Arg Tyr Leu Lys
    50                  55                  60
Tyr Leu
65
```

<210> 38492
<211> 78
<212> PRT
<213> A.fumigatus

<400> 38492

```
Asp Ser Thr Ala Ser Glu Lys Phe His Leu His Ser Ser Leu Lys Ala
1               5                   10                  15
Gln Asp Asn His Leu Phe Ala Thr Thr Tyr Ser Leu Leu Ile Leu Pro
            20                  25                  30
Lys Lys Thr Pro His Gln Ser Gln Trp Pro Pro Leu Leu Tyr Val Ile
        35                  40                  45
```

```
Thr Pro Gln Thr Ala Leu Leu Phe Leu His Glu Asp Arg Thr Trp Cys
    50                  55                  60
Ala Ser Arg Leu Gln Ser Arg Ile Phe His Lys Thr Arg Phe
65                  70                  75
```

<210> 38493
<211> 241
<212> PRT
<213> A.fumigatus

<400> 38493

```
Ala Leu Pro Ser Gly Val Arg Val Val Leu Thr Gly Gln Pro Thr Tyr
1               5                   10                  15
Gln Cys Met Glu Gln Trp Asp Ala Leu His Ala Met Leu Leu Tyr Glu
            20                  25                  30
Ile Leu Glu Met Gly Ile Ala Pro Val Asp Glu Ser Glu Ser Trp Lys
        35                  40                  45
Gln Lys Arg Arg Thr Lys Gly Leu Lys Ser Pro Phe Leu Ser Lys Met
    50                  55                  60
Thr Gln Cys Phe Ser Arg Ser His Leu Glu Leu His Asp Thr Ala Leu
65                  70                  75                  80
Leu Pro Phe Pro Asn Gly His Ser Thr Ala Asn Ser Ser Trp Val Thr
                85                  90                  95
Trp Ala Val Ala Glu Thr Val Arg Arg Thr Ile Phe Leu Ala Asn Ile
            100                 105                 110
Val His Phe Phe Ser His Arg Asp Leu His Ser Arg Arg Gln Ser Pro
        115                 120                 125
Tyr Tyr Glu Pro Leu Asn Asp Glu Leu Ile Leu Lys Met Pro Leu Pro
    130                 135                 140
Cys Asp Gln Ala Leu Trp Ser Ala Arg Thr Glu Asp Glu Trp Arg Lys
145                 150                 155                 160
Ala Thr Pro Ala Ser Pro Gly Ser Pro Gly Ile Thr Asp Ala Leu Ser
                165                 170                 175
Thr Leu Gly Pro Val Gly Asp Leu Thr Gly Arg Gly Gln Leu Pro Asn
            180                 185                 190
Gly Gln Tyr Gln Gln Pro Ser Leu Glu Met Leu Phe Ser Lys Phe Ala
        195                 200                 205
Ile Asp Asp Leu Arg Ala Thr Cys Val Thr Asn Ala Gly Phe Ala Asp
    210                 215                 220
Ser Asp Glu Leu Arg Ser Leu Ile Ile Leu Cys Ala Leu Glu Gln Phe
225                 230                 235                 240
Ala
```

<210> 38494
<211> 82
<212> PRT
<213> A.fumigatus

<400> 38494

```
Ala Leu Ser Gln Glu Thr Lys Thr Gln Gly Thr Asp Gly Thr Trp Asp
1               5                   10                  15
Ser His Ala Thr Ser Asn Ser Ser Pro Asp Ile Gly Gln Glu Asp Ser
            20                  25                  30
Gln Gly Tyr Ile Asp Gly Thr Ala Phe Ile Asn Ala Arg Pro Arg Ala
        35                  40                  45
```

```
Tyr His Thr Gly Asp Gly Phe Gly Ser Phe Val Asn Leu Thr Cys Ser
    50                  55                  60
Leu Ser Val Leu Leu Thr Asn Pro Leu Ser Val Phe Leu Pro Arg Leu
65                  70                  75                  80
Gln Thr
```

<210> 38495
<211> 357
<212> PRT
<213> A.fumigatus

<400> 38495

```
Cys Leu Asp Arg Trp Thr Pro Gly Asp Leu Leu Leu Arg His Arg Arg
1               5                  10                  15
Arg Cys Leu Arg Ala Asn Lys Pro Lys Ile Arg Arg Arg Ala Cys Asn
            20                  25                  30
Ala Cys Val Leu Ala Lys Thr Lys Cys Cys Cys Thr Gln Pro Ile Cys
        35                  40                  45
Ser Arg Cys Ala Lys Arg Gly Ile Pro Cys Glu Tyr Val Cys Thr Val
    50                  55                  60
Asn Thr Ala Thr Thr Ile Val Ser Asp Ser Ser Asp Ser Ser Pro Pro
65                  70                  75                  80
Ser Thr Arg Asp His Pro Arg Pro Asp Glu Thr Arg Val Ser Thr Thr
                85                  90                  95
Asp Phe Pro Ser Ile Trp Ser Pro Arg Ser Met Leu Gly Gly Pro Ser
            100                 105                 110
Ala Glu Ile Phe Asp Ser Trp Ser Ser Pro Asn Val Ile Trp Thr Val
        115                 120                 125
Asp Pro Leu Asp Phe Pro Ser Leu Pro Ser Ser Ala Gly Leu Val Asp
    130                 135                 140
Glu Val Thr Val Asp Pro Ala Leu Ala Ile Pro Thr Ser His Pro Ser
145                 150                 155                 160
Leu Thr Phe Pro Arg Ala Ser Ala Ser Ser Gln Pro Leu Ser Thr Pro
                165                 170                 175
Arg Glu Ile Ser Met Val Pro Pro Gly Pro Gly Thr Thr Asn Thr Ser
            180                 185                 190
Leu Thr Gly Leu Gly Gly Ser Pro Asp Val Pro Gly Val Gln Pro Ser
        195                 200                 205
Asn Tyr Ile Arg Leu Leu Ala Gln Tyr Pro Arg Leu Leu Leu Gln Asp
    210                 215                 220
Asp Phe Tyr Cys Pro Phe Val His Arg Thr Leu Phe Ser Glu Gln Val
225                 230                 235                 240
Ala Asp Met Thr Ile Leu Pro His Thr Ser Met Ala Ile Cys Cys Gly
                245                 250                 255
Ser Ala Leu Gly Val Lys Asp Ala Ala Gly Tyr Val Lys Arg Ala Met
            260                 265                 270
Asp Ala Gln Arg Gln Ser Leu Ile Glu Ser Tyr Val Ser Thr Ser Phe
        275                 280                 285
Gly Cys Ser Gly Arg Thr Asp Trp Pro Ala His Leu Pro Val His Gly
    290                 295                 300
Thr Val Gly Arg Phe Ala Arg His Ala Pro Leu Arg Asp Pro Arg Asp
305                 310                 315                 320
Gly His Arg Ala Arg Arg Arg Val Arg Glu Leu Glu Thr Glu Ala Pro
                325                 330                 335
His Lys Arg Ala Glu Ile Ala Leu Ser Leu Gln Asp Asp Pro Val Leu
```

340 345 350
Leu Ala Val Ala Pro
355

<210> 38496
<211> 411
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38496
Arg Arg Arg Xaa Gln Glu Asp Arg Ser Arg Pro Gly Pro Val Trp Tyr
1 5 10 15
Arg Pro Gln Ala Gly Gly Gly Thr Glu Ala Tyr Ile Lys Glu Glu Pro
20 25 30
Val Ser Pro Pro Pro Phe Ala Asp Thr Ala Pro Ala Ile His Pro Gln
35 40 45
Glu Arg Pro Ile Tyr Ile Asp Ile Ala Ser Pro Arg Pro Pro Tyr Thr
50 55 60
Pro Val Tyr Glu Arg Ile Glu Pro Val Arg Glu Pro Ala Tyr Glu Leu
65 70 75 80
Asp Pro Tyr His Glu Ala His Val Glu Ala Ser Tyr Pro Arg Thr Val
85 90 95
Ser Arg Leu Ser Ala Arg Arg Pro Ile Arg Asp Asp Gln Asp Leu Arg
100 105 110
Arg Val Ala Ser Leu His Gln Ala Arg Gln Pro Glu Tyr Thr Arg Glu
115 120 125
Tyr Ile Glu Arg Pro Ser Ser Arg Ser Leu Arg Ala Ala Ser Tyr Ala
130 135 140
Ile Val Glu Arg Pro Pro Gln Glu Arg Val Arg Tyr Tyr Asp Asp Pro
145 150 155 160
Pro Gln Thr Tyr Ala Arg His Tyr Ala Pro Ala Val Glu Ser Pro Thr
165 170 175
Ser Pro Arg Tyr Gln Glu Ala Trp Ile Gln Gly Ser Thr Thr Ala Pro
180 185 190
Pro Arg Arg Ile Leu Ile Asp Glu His Gly Asn His Tyr Arg Glu Arg
195 200 205
Thr Pro Pro Pro Arg Met Gln Ala Met Pro Pro Pro Pro Gly Arg Ile
210 215 220
Pro Arg Gly Asp Val Tyr Asp Asp Gly Val Arg Pro Ser Gly Ser Val
225 230 235 240
Arg Ala Val Ser Val Val Glu Asp Pro Tyr Cys Gly Arg Arg Tyr Val
245 250 255
Gln Glu Met Pro Pro Pro Pro Leu Ala Tyr Arg Arg Val Thr Asp Tyr
260 265 270
Pro Arg Pro Ala Pro Ser Glu Arg Arg Ser Tyr Val Thr Pro Leu Val
275 280 285
Asp Asp Arg Glu Pro Tyr Arg Arg Ser Ser Ser Val Gln Val Ala Gly
290 295 300
Tyr Pro Thr Ala Arg Ala Thr Tyr Val Glu Glu Ala Lys Ile Pro Arg
305 310 315 320
Glu Arg Ile Ile Arg Met Pro Ser Val Arg Pro Pro Ala Pro Arg Tyr

```
                325                 330                 335
Glu Glu Pro Arg Glu Met Val Pro Arg Ile Gly Ser Val Arg Pro Ala
            340                 345                 350
Glu Arg Asp Val Ser Val Tyr Val Asp Asp Asp Ala Arg Arg Pro Arg
        355                 360                 365
Glu Tyr Ile Glu Arg Pro Val Tyr Ile Ala Pro Arg Pro Leu Ala Arg
    370                 375                 380
Glu Glu Arg Tyr Tyr Glu Gly Glu Pro Glu Arg Val Ala Leu Asp Gly
385                 390                 395                 400
Arg Glu Ala Val His Gln Val Pro Gln Arg Tyr
                405                 410
```

<210> 38497
<211> 65
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (40)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38497

```
Lys Lys Asn Ser Tyr Phe Ser Cys Cys Ile Leu Trp Asn Ile Leu Ile
1               5                   10                  15
Ser Ser His Lys Val Leu Tyr Thr Glu Cys Tyr Glu Gln His Leu Pro
            20                  25                  30
Glu Ser Pro Ala Glu Gly Ile Xaa Leu Thr Pro Pro Phe Lys Leu Lys
        35                  40                  45
Arg Thr Ile Pro Val Phe Leu Ile Ile Leu Lys Gln Pro Lys Pro Phe
    50                  55                  60
Ser
65
```

<210> 38498
<211> 110
<212> PRT
<213> A.fumigatus

<400> 38498

```
Ile Val Ile Tyr Val Phe Ala Arg Val Val Leu Ala Leu Ala Lys Leu
1               5                   10                  15
Ser Val Gln Pro Asn Met His Pro Leu Ser Ser Leu Ile Thr Pro Glu
            20                  25                  30
Ser Arg Ala Arg Ile Glu Ala Asn Ala Trp Pro Val Phe Ala Ser Leu
        35                  40                  45
Ser Trp Ala Leu Val Met Tyr Ile Phe Arg Trp His Pro Glu Thr Leu
    50                  55                  60
Met Ser Ser Leu Arg Ser Ser Met Val Tyr Met Tyr Val Leu Thr Pro
65                  70                  75                  80
Thr Ala Gln Tyr Val Gln Val Leu Met Val Phe Ser Tyr Ser Asp Ser
                85                  90                  95
Asp His Trp Asp Ser Phe Arg Asn Phe Leu Ile Tyr Asn Lys
            100                 105                 110
```

<210> 38499

<211> 330
<212> PRT
<213> A.fumigatus

<400> 38499
Val Phe Leu Asn Ser Lys Pro Lys Asn Pro Arg Thr Ala Arg Ile Leu
1 5 10 15
Lys Ala Arg Glu Pro Gln Leu Ile Glu Pro Pro Lys Arg Thr Leu Phe
20 25 30
Met His Gly Ser Lys Cys Pro Thr Ala Leu Asn Thr Val Leu Lys Thr
35 40 45
Phe His Ser Leu Thr Val Pro His Ser Val Leu Phe His Lys Lys Asn
50 55 60
Glu Asn Ile His Pro Phe Glu Ser Ala Glu Ser Leu Glu Phe Leu Ala
65 70 75 80
Asn Lys Asn Glu Cys Gly Ile Val Val Phe Gly Ser Ser Ser Lys Lys
85 90 95
Arg Pro Asn Cys Leu Thr Val Ala Arg Ile Phe Asp Ser Lys Leu Leu
100 105 110
Asp Met Cys Glu Leu Met Leu Leu Pro Asn Pro Asp Gly Asp Ser Ile
115 120 125
Pro Pro Ile Asn Asn Leu Lys Met Gln Ile Gly Ile Gly Leu Arg Pro
130 135 140
Met Leu Leu Phe Ala Gly Thr Ala Trp Asp Asp Ser Thr Ser Thr Ala
145 150 155 160
His Val Met Leu Lys Ser Met Phe Ile Asp Met Phe Lys Gly Glu Glu
165 170 175
Ser Asp Lys Ile Asp Val Glu Gly Leu Gln Tyr Val Leu Met Ile Ala
180 185 190
Ala Glu Glu Pro Thr Asp Gly Leu Ala Pro Val Ile His Leu Arg Trp
195 200 205
Tyr Lys Leu Arg Thr Lys Arg Ser Gly His Lys Leu Pro Arg Val Glu
210 215 220
Leu Asp Glu Ile Gly Pro Lys Phe Asp Phe Lys Ile Gly Arg Leu His
225 230 235 240
Glu Ala Pro Glu Ser Ala Leu Lys Glu Ala Met Lys Gln Gly Lys Arg
245 250 255
Pro Asn Glu Asn Met Lys Thr Lys Lys Asn Ile Gly Met Asp Ile Met
260 265 270
Gly Asp Lys Ile Gly Arg Val His Leu Gly Lys Gln Asp Leu Ser Gly
275 280 285
Leu Gln Thr Arg Lys Met Lys Gly Leu Lys Arg Arg Ala Gly Val Glu
290 295 300
Ser Asp Glu Glu Asp Ala Glu Met Met Asp Val Asp Glu Val Ser Asp
305 310 315 320
Asp Glu Gly Arg Lys Lys Ala Arg Thr Glu
325 330

<210> 38500
<211> 158
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38500
Thr Val Xaa Phe His Ala Ala Leu Arg Tyr Trp Arg Thr Cys Ser Leu
1 5 10 15
His Leu Cys Ser Arg Leu Val Gly Ile Phe Cys Ser Ser Gly Tyr Asp
20 25 30
Phe Arg Ser Val Val Phe Ala Val Asp Val Leu Ile Asn Leu Gln Val
35 40 45
Ala Arg Met Ile Met Leu Gly Ile Lys Leu Thr Gly Lys Val Pro Phe
50 55 60
Lys Glu Val Tyr Cys His Ser Leu Ile Arg Asp Ser Glu Gly Arg Lys
65 70 75 80
Met Ser Lys Ser Leu Gly Asn Val Ile Asp Pro Leu Asp Val Met Glu
85 90 95
Gly Ile Glu Leu Gln Ala Leu His Ala Lys Leu Leu Thr Gly Asn Leu
100 105 110
Ala Glu Lys Glu Val Ala Thr Ala Thr Lys Tyr Gln Lys Lys Ala Phe
115 120 125
Pro Lys Gly Ile Pro Glu Cys Gly Ala Asp Ala Leu Arg Phe Ala Leu
130 135 140
Val Ser Tyr Thr Thr Gly Gly Lys Phe Gly Tyr Cys Leu Ala
145 150 155

<210> 38501
<211> 347
<212> PRT
<213> A.fumigatus

<400> 38501
Asp Cys Arg Ile Lys Glu Leu Thr Asp Ser Gly Leu Gly Gly Asp Ile
1 5 10 15
Ala Phe Asp Ile Gln Val Ile His Gly Tyr Arg Arg Phe Cys Asn Lys
20 25 30
Ile Tyr Gln Ala Thr Lys Phe Val Leu Gly Arg Leu Gly Asp Asp Phe
35 40 45
Lys Pro Leu Pro Ala Pro Ser Lys Thr Gly Arg Glu Ser Leu Ser Glu
50 55 60
Arg Trp Ile Leu His Lys Phe Asn Thr Ala Ala Lys Glu Val Asn Glu
65 70 75 80
Ala Leu Ala Gln Arg Glu Phe Ser Val Ala Ala Ser Thr Thr Tyr His
85 90 95
Tyr Trp Tyr Gly Gln Leu Cys Asp Ile Phe Ile Glu Asn Ser Lys Tyr
100 105 110
Leu Leu Ala Pro Glu Val Pro Ala Glu Val Gln Glu Ser Ala Lys Gln
115 120 125
Thr Leu Tyr Thr Ala Leu Glu Gly Ala Leu Thr Leu Ile His Pro Ile
130 135 140
Met Pro Phe Val Thr Glu His Leu Trp Gln Arg Leu Pro Arg Arg Pro
145 150 155 160
Gly Asp Lys Thr Ile Ser Ile Met Lys Ala Arg Tyr Pro Gln Tyr Asn
165 170 175
Pro Glu Phe Asn Asp Pro Glu Ala Glu Thr Ala Tyr Glu Leu Ile Leu
180 185 190
Asn Thr Ser Lys Ala Ile Arg Ser Ile Leu Ala Gln Tyr Glu Ile Lys
195 200 205

```
Thr Lys Gly Asp Ile Ile Ile Gln Thr Tyr Asp Pro Val Ser Tyr Lys
    210                 215                 220
Thr Ile Ser Asp Glu Val Thr Ser Ile Lys Ser Leu Gly Gly Lys Phe
225                 230                 235                 240
Leu Gly Glu Leu Thr Val Ala Asp Leu Glu Asn Thr Asn Pro Pro Ser
                245                 250                 255
Gly Cys Val Val Ala Pro Val Gly Ala Gln Ala Ala Val Tyr Leu Arg
            260                 265                 270
Val Ser Lys Glu Val Ala Leu Glu Gln Glu Glu Lys Ala Lys Ala Ser
        275                 280                 285
Leu Glu Lys Ala Arg Glu Thr Val Arg Arg Gln Gln Thr Leu Val Asn
    290                 295                 300
Ala Ala Gly Trp Lys Glu Lys Val Lys Pro Glu Val Arg Glu Gln Glu
305                 310                 315                 320
Glu Arg Lys Leu Arg Asp Ala Glu Ser Glu Ala Ala Arg Leu Glu Glu
                325                 330                 335
Gln Ile Arg Glu Phe Glu Lys Leu Arg Leu Glu
            340                 345
```

<210> 38502
<211> 392
<212> PRT
<213> A.fumigatus

<400> 38502

```
Gln Val Val Ser Ala Asp Pro Arg Ala Glu Val Leu Glu Cys Ser Asn
1                   5                   10                  15
Ile Ala Trp Pro Asn Ser Gly Met Trp Ser Arg Gly Gln Arg Val Phe
            20                  25                  30
Lys Tyr Asn Ala Gly Ser Val Leu Ser Asp Ala Lys Gln Glu Glu Asp
        35                  40                  45
Leu His Ala His Ser Pro Thr Arg His Glu Asn Arg Ser Val Val Ala
    50                  55                  60
Asn Ser Asn Arg Val Ser Asn Pro Ala Ala Tyr Thr Ala Trp Pro Tyr
65                  70                  75                  80
Arg Asn Tyr Pro Pro Pro Pro Pro Gln Trp Gln Asn Asn Asn Arg Glu
                85                  90                  95
Thr Thr Trp Thr Tyr Gln Ser Thr Gln Glu Pro Leu Met Thr Asp Pro
            100                 105                 110
Phe Ile Asp Pro His Ile Leu Asp Pro Thr Ala Arg His Arg Gly Ala
        115                 120                 125
Arg Pro Ser Trp Glu Asp Val Cys Met Pro Asp Tyr Ile Ser Asn Ser
    130                 135                 140
Ser Ser Ser Arg Ala Ile Ser Ser Met Thr Gly Ile Ser Tyr Glu His
145                 150                 155                 160
Ser Lys Gln Pro Ser Ile Val Ala Pro Ile Asp Glu Glu Thr Tyr Ser
                165                 170                 175
Gln Leu Phe Glu Gly Val Ser Pro Pro Lys Pro Leu Ala Cys Ile Ser
            180                 185                 190
Gln Ala Pro Lys Asn Thr Ser Ser Ala Leu Pro Pro Val Ala Ser Lys
        195                 200                 205
Leu Ser Ala Ala Gly Glu Glu Arg Ser Ser Ser Cys Val Lys Thr Ala
    210                 215                 220
Arg Arg Pro Ser Ile Leu Lys Glu Leu Ser Gln Pro Val Ser Arg Ser
225                 230                 235                 240
Val Ser Gly Ser Ser Ala Lys Ser Ser Leu Pro Ala Glu Ala Leu Leu
```

```
                245                 250                 255
Glu Ala Thr Ala Thr Cys Lys Leu His Val Ser Pro Thr Thr Gln Ile
            260                 265                 270
Arg Ser Lys Lys Glu Gly Asn Cys Ser Asp Asn Lys Glu Asn Glu Ala
        275                 280                 285
Ser Ser Glu Thr Pro Arg Arg Asp Asn Asp Lys Val Asp Arg Thr Pro
    290                 295                 300
Ala Lys Leu Thr Val Arg Thr Ser Gly Asn Phe Glu Thr Pro Val Glu
305                 310                 315                 320
Ser Arg Arg Arg Arg Ser Thr Thr Gly Ser Ala Arg Gly Gly Val Ser
                325                 330                 335
Leu Ile Thr Glu Arg Glu Thr Val Leu Leu Ser Pro Ser Lys Asn Leu
            340                 345                 350
Pro Val Val Glu Asn His Val Thr Val Val Glu Asn His Asp Gln His
        355                 360                 365
Thr Ser Phe Asp Asp Phe Leu Asp Thr Lys Leu Gln Ile Val Asp Thr
    370                 375                 380
Ala Ala Asp Thr Ile Glu Ile Asn
385                 390
```

<210> 38503
<211> 116
<212> PRT
<213> A.fumigatus

<400> 38503

```
Ser Ser Ile Arg Glu Ile Asn Met Ala Thr Lys Ile Ala Gly Gly Leu
1               5                   10                  15
His Arg Ala Gln Glu Val Leu Gln Asn Thr Ser Ser Lys Ser Lys Lys
            20                  25                  30
Leu Val Asp Leu Glu Arg Asp Thr Ala Asp Ala His Thr Gln Gln Pro
        35                  40                  45
Leu Thr Thr Asp His Gly Val Arg Val Ser Asn Thr Asp Gln Trp Leu
    50                  55                  60
Arg Val Thr Asn Asp Arg Arg Thr Gly Pro Ser Leu Leu Glu Asp Gln
65                  70                  75                  80
Ile Ala Arg Glu Lys Val Asn Ile Leu His Val Asn Thr Leu Asn Lys
                85                  90                  95
Tyr Gly Ile Asp Asp Ile Arg Arg Ser Ile Ala Leu Ile Met Asn Val
            100                 105                 110
Phe Leu Lys Glu
        115
```

<210> 38504
<211> 166
<212> PRT
<213> A.fumigatus

<400> 38504

```
His Pro Asp Gln Pro Pro Gly His Gln Leu Gly Arg Ala Ala Asn Gln
1               5                   10                  15
Pro Ser Ser Val Pro Cys Ala Gln Pro Gln Pro Arg Arg Thr Asp Ala
            20                  25                  30
Pro Ser Asn His Ala Arg His Gly Gln Leu Leu Ala Gln Pro Leu Arg
        35                  40                  45
Ser Arg Ala Pro Asp Arg His Gln Gly Leu Arg Ser Gly Arg Arg Val
```

```
    50                  55                  60
His Asn Leu Pro Pro Ala Gly Gly Gly His Gln Glu Pro Arg Pro Gln
65                  70                  75                  80
Arg Gln Ile Ser Arg Ala Pro Gln Pro Ser Pro Ala Leu Leu Gln Leu
                85                  90                  95
Asn Val Arg Ala Arg Glu Ala Pro Leu Glu Glu Arg Phe Gln Leu Arg
            100                 105                 110
Pro Arg Pro Leu Arg Arg Pro Pro Arg Ser Arg Thr Ala Ser Pro Ala
        115                 120                 125
Asn Arg Ser Pro Ile Ser Asn Ser Ser Ser Pro Gln Lys Phe Pro Lys
    130                 135                 140
Leu Ala Gly Pro Pro Ile Pro Pro Lys Gly Pro Gln Ala Gln Thr Ile
145                 150                 155                 160
Gly Arg Arg Ala Ser Ala
                165
```

<210> 38505
<211> 378
<212> PRT
<213> A.fumigatus

<400> 38505

```
Leu Leu Leu Leu Ile Pro Ser Asp Leu Thr Val Leu Ser Val His Ala
1               5                   10                  15
Val Lys Pro Glu Pro His Asn Glu Val Pro Gln Ala Gln Thr Ala His
            20                  25                  30
Asn Asn Phe Trp Asp Phe Val Tyr Leu His Pro Glu Ala Thr His Met
        35                  40                  45
Phe Met Trp Ala Met Ser Asp Arg Ala Ile Pro Arg Ser Tyr Arg Met
    50                  55                  60
Met Gln Gly Phe Gly Val Asn Thr Phe Ala Leu Val Asn Lys Glu Gly
65                  70                  75                  80
Lys Arg His Phe Val Lys Phe His Trp Ile Pro His Leu Gly Val His
                85                  90                  95
Ser Leu Val Trp Asp Glu Ala Leu Lys Leu Gly Gly Gln Asp Pro Asp
            100                 105                 110
Phe His Arg Lys Asp Leu Met Glu Ala Ile Asp Asn Lys Ala Tyr Pro
        115                 120                 125
Lys Trp Asp Phe Ala Ile Gln Val Ile Pro Glu Glu Lys Gln Asp Asp
    130                 135                 140
Phe Glu Phe Asp Ile Leu Asp Ala Thr Lys Ile Trp Pro Glu Asp Leu
145                 150                 155                 160
Val Pro Leu Arg Val Ile Gly Glu Leu Glu Leu Asn Arg Asn Val Asp
                165                 170                 175
Glu Phe Phe Pro Gln Thr Glu Gln Val Ala Phe Cys Thr Ser His Ile
            180                 185                 190
Val Pro Gly Ile Asp Phe Thr Asp Asp Pro Leu Leu Gln Gly Arg Asn
        195                 200                 205
Phe Ser Tyr Phe Asp Thr Gln Ile Ser Arg Leu Gly Ile Asn Trp Glu
    210                 215                 220
Glu Leu Pro Ile Asn Arg Pro Val Cys Pro Val Leu Asn His Asn Arg
225                 230                 235                 240
Asp Gly Gln Met Arg His Arg Ile Thr Gln Gly Thr Val Asn Tyr Trp
                245                 250                 255
Pro Asn Arg Phe Glu Ala Val Pro Pro Thr Gly Thr Lys Gly Ser Gly
            260                 265                 270
```

```
Val Gly Gly Gly Phe Thr Thr Tyr Pro Gln Arg Val Glu Gly Ile Lys
        275                 280                 285
Asn Arg Ala Leu Ser Asp Lys Phe Arg Glu His His Asn Gln Ala Gln
    290                 295                 300
Leu Phe Tyr Asn Ser Met Ser Glu His Glu Lys Leu His Leu Lys Asn
305                 310                 315                 320
Ala Phe Ser Ser Asp Leu Asp His Cys Asp Asp Pro Pro Gly Leu Glu
                325                 330                 335
Arg Leu Pro Arg Pro Ile Ala Pro Arg Phe Arg Thr Arg Ala Pro Pro
            340                 345                 350
Lys Asn Ser Pro Asn Trp Arg Gly Pro Gln Phe Leu Pro Arg Ala Leu
        355                 360                 365
Lys Pro Lys Pro Ser Gly Asp Ala Pro Arg
    370                 375
```

<210> 38506
<211> 114
<212> PRT
<213> A.fumigatus

<400> 38506

```
Tyr Ser Gln Ile His Arg Phe Asp His Glu Arg Ile Pro Glu Arg Val
1               5                   10                  15
Val His Ala Arg Gly Thr Gly Ala Phe Gly Asn Phe Lys Leu Lys Glu
            20                  25                  30
Ser Ile Glu Asp Leu Thr Tyr Ala Gly Val Leu Thr Asp Thr Ser Arg
        35                  40                  45
Asn Thr Pro Val Phe Val Arg Phe Ser Thr Val Gln Gly Ser Arg Gly
    50                  55                  60
Ser Ala Asp Thr Val Arg Asp Val Arg Gly Phe Ala Val Lys Phe Tyr
65                  70                  75                  80
Thr Asp Glu Gly Asn Trp Asp Ile Val Gly Asn Asn Ile Pro Val Phe
                85                  90                  95
Phe Ile Gln Asp Ala Val Lys Phe Pro Asp Phe Gly Thr Tyr Ser Ser
            100                 105                 110
Cys Cys
```

<210> 38507
<211> 146
<212> PRT
<213> A.fumigatus

<400> 38507

```
Thr Ala Thr Ser Thr Asn Ser Ser Leu Arg Pro Ser Arg Ser His Ser
1               5                   10                  15
Ala Pro Ala Thr Ser Ser Leu Ala Leu Thr Ser Pro Thr Ile His Phe
            20                  25                  30
Ser Lys Ala Glu Thr Ser Pro Thr Leu Thr Pro Arg Ser Ala Ala Trp
        35                  40                  45
Ala Ser Ile Gly Lys Ser Cys Gln Ser Thr Val Gln Cys Ala Leu Cys
    50                  55                  60
Ser Thr Thr Thr Ala Thr Asp Arg Cys Ala Ile Glu Ser Arg Lys Ala
65                  70                  75                  80
Arg Ser Thr Thr Gly Pro Thr Ala Ser Lys Pro Cys Pro Arg Pro Ala
                85                  90                  95
```

```
Pro Arg Ala Pro Glu Trp Ala Ala Gly Ser Gln Pro Thr Pro Ser Gly
            100                 105                 110
Trp Arg Ala Ser Arg Thr Ala Pro Ser Ala Thr Asn Phe Ala Ser Thr
        115                 120                 125
Thr Thr Lys Pro Ser Ser Ser Thr Thr Gln Cys Pro Ser Thr Arg Ser
    130                 135                 140
Ser Thr
145
```

<210> 38508
<211> 92
<212> PRT
<213> A.fumigatus

<400> 38508

```
Ser Phe Arg Met Arg Gln Cys His Ala His Gly Leu Leu Phe Gln Glu
1               5                   10                  15
Tyr Val His Asp Gln Ser Asp Gly Ser Ala Asn Ile Ile Asn Thr Ile
            20                  25                  30
Phe Ile Glu Ser Ile Tyr Met Gln Tyr Val Tyr Leu Phe Ser Gly Asn
        35                  40                  45
Leu Ile Leu Gln Gln Gly Trp Ala Ser Ser Ala Val Ile Arg Asn Ser
    50                  55                  60
Lys Pro Leu Ile Gly Val Ala Asp Ser Tyr Thr Val Ile Arg Ser Gln
65                  70                  75                  80
Trp Leu Leu Gly Met Arg Ile Gly Arg Ile Ser Phe
                85                  90
```

<210> 38509
<211> 295
<212> PRT
<213> A.fumigatus

<400> 38509

```
Val Val Glu Glu Leu Gly Leu Val Val Val Leu Ala Lys Phe Val Ala
1               5                   10                  15
Glu Gly Ala Val Leu Asp Ala Leu His Pro Leu Gly Val Gly Cys Glu
            20                  25                  30
Pro Ala Ala His Ser Gly Ala Leu Gly Ala Gly Arg Gly His Gly Phe
        35                  40                  45
Glu Ala Val Gly Pro Val Val Asp Arg Ala Leu Arg Asp Ser Met Ala
    50                  55                  60
His Leu Ser Val Ala Val Val Val Glu His Arg Ala His Trp Thr Val
65                  70                  75                  80
Asp Trp Gln Leu Phe Pro Ile Asp Ala Gln Ala Ala Asp Leu Gly Val
                85                  90                  95
Lys Val Gly Glu Val Ser Ala Leu Glu Lys Trp Ile Val Gly Glu Val
            100                 105                 110
Asn Ala Arg Asp Asp Val Ala Gly Ala Glu Cys Asp Leu Leu Gly Leu
        115                 120                 125
Arg Glu Glu Phe Val Asp Val Ala Val Gln Leu Glu Leu Ser Asn His
    130                 135                 140
Thr Lys Gly His Lys Val Phe Arg Pro Asp Leu Gly Gly Ile Gln Asn
145                 150                 155                 160
Val Lys Leu Lys Val Ile Leu Leu Leu Leu Trp Asn Asp Leu Asp Cys
                165                 170                 175
```

```
Glu Val Pro Phe Arg Ile Arg Leu Val Val Asp Ser Leu His Gln Val
            180                 185                 190
Phe Ala Met Glu Ile Arg Val Leu Ala Ser Gln Leu Gln Gly Phe Val
        195                 200                 205
Pro His Glu Arg Val Asn Thr Gln Met Gly Asp Pro Val Glu Leu Asp
    210                 215                 220
Lys Val Ser Leu Ser Phe Phe Val Asp Glu Ser Lys Ser Ile Asp Thr
225                 230                 235                 240
Lys Ser Leu His His Pro Val Gly Ser Gly Asp Gly Ala Val Arg His
                245                 250                 255
Gly Pro His Glu His Val Gly Gly Phe Trp Val Gln Val His Lys Ile
            260                 265                 270
Pro Glu Val Val Val Gly Cys Leu Gly Leu Arg Asp Leu Val Val Arg
        275                 280                 285
Leu Arg Leu Asp Ser Met Asp
    290                 295
```

<210> 38510
<211> 721
<212> PRT
<213> A.fumigatus

<400> 38510

```
Ile Gln Ser Arg Ser Ser Pro Thr Val Ile Thr His Gln Arg Leu Thr
1               5                   10                  15
Arg Asp Pro Ser Asn Ser Val Lys Met Leu Pro Lys Leu Pro Ser Lys
            20                  25                  30
Ile Asp Gln Ala Pro Glu Pro Tyr Ile Ser His Pro Gly Ala Asp His
        35                  40                  45
Asn Gln Gln Ser Ser Leu Ser Arg Asn Gly Ser Leu Leu Lys Ser Lys
    50                  55                  60
Gln Asn Asp Lys Gly Pro Ala Val Leu Lys Lys Lys Leu Ser Lys Arg
65                  70                  75                  80
Lys Ala Tyr Glu Ile Ala Arg Glu Gln Glu Ile Arg Leu Met Ala Ser
                85                  90                  95
Ser Pro Ile Asp Ile Pro Trp Arg Pro Gly Thr Leu Pro Gly Glu Arg
            100                 105                 110
Val Ser Val Glu Thr Arg Arg Ala Pro Arg Thr His Ser Arg Arg Ser
        115                 120                 125
Asp Arg His Leu Ser Asp Leu Ser Leu Pro Val Arg Asp Ser Ala Ala
    130                 135                 140
Ser Ser Val Ser Asp Cys Ser Glu Ser Tyr Thr Phe Lys Val Asn Ser
145                 150                 155                 160
Leu Ala Ala Trp Thr Pro Arg Pro Ile Ile Arg Tyr Val Glu Ala Pro
                165                 170                 175
Arg Ser Ser Ala Ala Arg Ser Gln Lys Ser Ala Glu Val Pro Gly Arg
            180                 185                 190
Lys Glu Asn Ala Leu Asn Phe Ser Ile Ser Glu Glu Glu Leu Tyr Ser
        195                 200                 205
Lys Gln Arg Val Asp Ala Leu Ala Asp Ser Leu Asp Ala Ser Ala Leu
    210                 215                 220
Arg Glu Leu Leu Glu Arg Asp Arg Arg Arg Lys Glu Lys Gln Arg Ile
225                 230                 235                 240
Glu Glu Gln Lys Arg Leu Arg Arg Arg Leu Gln Arg Arg Ala Glu Arg
                245                 250                 255
Gln Arg Arg Glu Glu Glu Gln Glu Asp Glu Ser Gln Arg Gln His Ser
```

```
            260                 265                 270
His Ala Gln Gly Pro Ser Ala Ile Asn Arg Gly Gln Ala Ile Val Gly
        275                 280                 285
Lys Asn Ala Glu Ser Thr Pro Asp Asp Thr Gly Thr Met Cys Lys Asn
    290                 295                 300
Asp Glu Thr Lys Ile Phe Leu Ser Gly Asp Thr Ala Gly Ser Trp Leu
305                 310                 315                 320
Arg Asp Ala Ser Lys Glu Arg Ser Arg His Thr Ser Phe Glu Ser Val
                325                 330                 335
His Val Val Gly Asn Leu Asp Asp Ser Ser Val Thr Lys Leu Lys Leu
            340                 345                 350
Ala Glu Arg Pro Ser Phe Thr Gln Ser His Asp Met Gly Met Ser His
        355                 360                 365
Thr Thr Leu Ser Pro Ser Pro Ser Arg Arg Gly Leu Ser Ser Pro Thr
    370                 375                 380
Ser Ser Gln Val Tyr Gly Val Ala Arg Glu Ser Thr Ser Asp Val Ser
385                 390                 395                 400
Arg Thr Val Glu Ser Glu Arg Arg Leu Ser Asp His Ser Ser Thr Arg
                405                 410                 415
Gly Gly Ala Leu Ala Ser Leu Phe Arg Arg Ser Ser Ser Arg Leu Lys
            420                 425                 430
Arg Arg Tyr Arg Glu Arg Phe Gln Asp Gln Ser Ser Glu Leu Ser Asn
        435                 440                 445
Thr Ser His Glu Ser Phe Phe Lys Val Pro Thr Gln Ser Ser Gly Pro
    450                 455                 460
Pro Pro Tyr Ser Pro Pro Lys Pro Phe Leu Arg Ser Gly Val Ile Lys
465                 470                 475                 480
Arg Ser Gln Ser Lys Phe Thr Glu His Phe Gly Asp Glu Pro Leu Ser
                485                 490                 495
Pro Pro Asp Ser Arg Leu Gln Ser Pro Glu Ile Pro Glu Glu Pro Ser
            500                 505                 510
Asp Gln Phe Gly Lys Glu Asn Asp Thr Leu Asn Leu His Val Glu Ser
        515                 520                 525
His Tyr Pro Ile Pro Gly Ser Glu Ser Asp Leu Gln Asp Ala Ser Lys
    530                 535                 540
Ile Pro His Arg Ser Trp Gly Asp Glu Ser Leu Glu Asp Gly Ala Asp
545                 550                 555                 560
Asn Val Pro Leu Ser Gln Ser Leu Ala Ser Ile Asp Ser Glu Gly Ser
                565                 570                 575
Trp Met Ser Gly Gln Phe Leu Arg Arg Ile Ser Gln Arg Arg Ser Asn
            580                 585                 590
Leu Ile His Arg Ser Thr Ser Leu Ser His Asn His Thr Glu Glu Gly
        595                 600                 605
His Glu Asp Ser Val Lys Asp Asp Ala Met Pro Gln Lys Glu His Phe
    610                 615                 620
Val Arg Phe Glu Ser Asp His Asp Asp Thr Glu Gly Pro Ser Ser Ser
625                 630                 635                 640
Val Leu Asp Asn Gln Glu Lys Asp Ser Asn Val Arg Ala Ser Gln Asp
                645                 650                 655
Gly Thr Trp His Ser Glu Ile Ala Arg Arg Pro Val Val Val Asn Pro
            660                 665                 670
Thr Ile Arg Pro Lys Ser Asn Glu Gly Leu Leu Ile Arg Ser Ile Gln
        675                 680                 685
Ser Leu Ser Pro Ile Ser Ala Asp Glu Glu Val Ser Pro Ile Glu Glu
    690                 695                 700
His Pro Ser Glu His Glu Tyr Met His Asp Glu Gly Cys Gly Gln Ala
```

705 710 715 720
Cys

<210> 38511
<211> 180
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (49)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38511
Gln Tyr Arg Arg Ala Phe Glu Lys Gly Arg Gln Pro Ala Asn Thr Arg
1 5 10 15
Ile Gly Ala Lys Arg Ile His Leu Val Arg Thr Arg Gly Gly Asn Arg
20 25 30
Lys Phe Arg Ala Leu Arg Leu Glu Ser Gly Asn Phe Ser Trp Gly Ser
35 40 45
Xaa Gly Ile Ser Arg Lys Thr Arg Val Ile Val Val Ala Tyr His Pro
50 55 60
Ser Asn Asn Glu Leu Val Arg Thr Asn Thr Leu Thr Lys Ser Ala Val
65 70 75 80
Val Gln Ile Asp Ala Ala Pro Phe Arg Gln Trp Tyr Glu Ala His Tyr
85 90 95
Gly Gln Pro Ile Gly Arg Arg Arg Gln Gln Lys Thr Ala Glu Thr Thr
100 105 110
Thr Glu Lys Lys Ser Asn Ser Val Val Lys Lys Gln Ala Ala Arg Phe
115 120 125
Ala Asp His Gly Lys Val Glu Pro Ala Ile Glu Lys Gln Phe Glu Ser
130 135 140
Gly Arg Leu Tyr Ala Val Ile Ala Ser Arg Pro Gly Gln Ser Gly Arg
145 150 155 160
Val Asp Gly Tyr Ile Leu Glu Gly Glu Glu Leu Ala Phe Tyr Gln Arg
165 170 175
Ala Ile Arg Lys
180

<210> 38512
<211> 396
<212> PRT
<213> A.fumigatus

<400> 38512
Ser Ser Glu Leu Ser Ile Asn Gly Met Ile Leu Thr Phe Phe Phe Phe
1 5 10 15
Ser Phe Ser Phe Ser Lys Glu Leu Met Val Ser Pro Val Glu Leu Leu
20 25 30
Phe His Leu Thr Tyr Thr Asp Gln Gly Gln Ala Thr Gly Ile Ile Asn
35 40 45
Ser Thr Pro Pro Val Arg Ala Leu Gly Asn Tyr Asn Asn His Ile Gln
50 55 60
Leu Ser Thr Leu Leu Asn Tyr Pro Leu Thr Thr Val Met Ser Asn Lys
65 70 75 80

```
Thr Ile Lys Thr Arg Leu Leu Leu Ile Ser Asp Thr His Asn Thr Ser
                85                  90                  95
Pro His Pro Pro Pro Ser Pro His Pro Tyr Arg His Pro Leu Pro Glu
            100                 105                 110
Ala His Ile Leu Ile His Ser Gly Asp Leu Thr Thr Ile Gly Ser Tyr
        115                 120                 125
Gln Glu His Ala Thr Thr Val Ala Thr Leu Lys Cys His Pro Ala Glu
    130                 135                 140
Leu Lys Leu Ile Ile Ala Gly Asn His Asp Ile Thr Leu Asp Glu Ala
145                 150                 155                 160
Tyr Tyr Ala Ala Leu Pro Pro Ser Ser Phe Lys Thr Arg Ser Gly Arg
                165                 170                 175
Glu Asp Pro Ala Ala Ile Lys Gln Leu Tyr Cys Gly Pro Glu Ala Tyr
            180                 185                 190
Asp Ala Gly Ile Arg Tyr Leu Asp Glu Gly Val His Cys Phe Ser Leu
        195                 200                 205
Ser Thr Gly Ala Glu Leu Arg Val Phe Ala Ser Pro Tyr Thr Pro Ala
    210                 215                 220
Phe Cys Ser Trp Ala Phe Ala Tyr Pro Arg Gly Arg Asp Arg Phe Asn
225                 230                 235                 240
Pro Leu Pro Glu Asp Thr Thr Ala Ser Ser Ala Leu Ser Ser Ala Gly
                245                 250                 255
Ala Asp Ala Pro Asp Gly Val Val Pro Asp Phe Pro Ser Val Asp Ile
            260                 265                 270
Met Ile Thr His Gly Pro Pro Ala Gly Val Leu Asp Thr Val Val His
        275                 280                 285
Gly Gly Ser Val Gly Cys Glu Gly Leu Phe Ala Ala Val Lys Arg Ala
    290                 295                 300
Arg Pro Arg Val His Val Phe Gly His Ile His Glu Gly Tyr Gly Ala
305                 310                 315                 320
Leu Arg Gly Glu Trp Gly Pro Asp Met Thr Leu Gly Gly Thr Lys Val
                325                 330                 335
Val Cys Asp Pro Asp Lys Val Arg Glu Glu Arg Gly Ala Tyr Val Asp
            340                 345                 350
Val Ser Ala Asp Ser Gly Cys Pro Leu Arg Phe Gly Glu Glu Thr Leu
        355                 360                 365
Phe Val Asn Ala Ser Val Leu Asn Glu Arg Tyr Lys Ala Val Asn Ala
    370                 375                 380
Pro Trp Val Val Asp Leu Asp Leu Pro Val Ser Ser
385                 390                 395
```

<210> 38513
<211> 63
<212> PRT
<213> A.fumigatus

<400> 38513

```
Phe Pro Thr Ser Thr Ala Asn Met Gly Ile Ser Arg Asp Ser Arg His
1               5                  10                  15
Lys Arg Ser Ala Thr Gly Ala Lys Arg Ala Thr Tyr Arg Lys Lys Arg
            20                  25                  30
Tyr Asp Pro Arg Val Ile Leu Phe Leu Thr Ser Leu Thr Ile Pro Gln
        35                  40                  45
Gly Val Arg Glu Gly Ser Pro Ala Cys Gln His Pro Tyr Trp Cys
    50                  55                  60
```

<210> 38514
<211> 216
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (161)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38514
Tyr Phe Leu Glu Asn Ile Ala Glu Thr Pro Lys Pro Pro Phe Tyr Thr
1 5 10 15
Thr Arg Lys Arg Asn Thr Pro Asn Lys Phe Phe Leu Leu Leu Ala Asp
20 25 30
Ser Thr Leu Val Glu Ser Gln Leu Leu Thr Leu Gln Asp Val Thr Val
35 40 45
Asp Thr Thr Ala Leu Ala Arg Ala Gly Gly Asp Asp Gly Val Gln Thr
50 55 60
Thr Gly Leu Lys Leu Leu Leu Asp Gly Gly Leu Asn Leu Ala Val Val
65 70 75 80
Gly Glu Ala Ser Ser Leu Leu Leu His Asp Ala Val Ala Leu Leu Leu
85 90 95
Gly Gly Gly Leu Gly Gly Leu Leu Leu Ala Ser Pro Ala Asp Gly Leu
100 105 110
Ala Val Val Ser Leu Val Pro Leu Ser Glu Gly Ser Gly Ile Asn Leu
115 120 125
Asn Asp Gly Gly Leu Gly Gln Gly Val Gly Ala Asp Gln Phe Val Val
130 135 140
Gly Gly Val Val Gly His Asn Asp Asp Thr Gly Leu Ala Gly Asp Ala
145 150 155 160
Xaa Gly Thr Pro Arg Glu Val Ala Arg Leu Lys Thr Glu Gly Thr Glu
165 170 175
Leu Ala Val Thr Thr Thr Gly Ala Asp Gln Val Asp Ser Leu Ser Thr
180 185 190
Asn Thr Gly Val Gly Arg Leu Ala Thr Leu Leu Glu Arg Pro Ala Val
195 200 205
Leu Ser Glu Met Ser Glu Lys Gly
210 215

<210> 38515
<211> 451
<212> PRT
<213> A.fumigatus

<400> 38515
Arg Gln Asp Tyr Glu Gly Gln Phe Leu Gln Ile Thr Ser Val Ser Ala
1 5 10 15
His Arg Asp Met Thr His Pro Val Tyr Gln Arg Ser Arg Ile Pro Leu
20 25 30
Ala Val Arg Asp His Leu Leu Ile Ser Glu Pro Ser Gln Phe Ser Ser
35 40 45
Thr Leu Lys Arg His Val Gln Gly Thr Asp Val Arg Glu Gln Trp Val
50 55 60
Glu Lys Thr Ile Phe Thr Thr Ala Glu Pro Phe Pro Asn Ile Leu Arg
65 70 75 80

```
Arg Ser Glu Ile Val Ala Val Glu Glu Val Ala Leu Ser Pro Leu Gln
                85                  90                  95
Thr Ala Val Glu Arg Thr Trp Arg Lys Thr Gln Glu Leu Ser Leu Leu
            100                 105                 110
Glu Arg Arg Ala Ala Ser Gly Glu Asp Gln Gly Leu Ser Ser Leu Thr
        115                 120                 125
Glu Ala Leu Gln Gln Leu Leu Asp Leu Asn Ser Pro Ser Ala Ser Cys
    130                 135                 140
Val Ala Leu Tyr Arg Gln Phe Leu Ala Glu Val Asp Glu Asp Asp Thr
145                 150                 155                 160
Glu Lys Val Glu Glu Ser Thr Asp Pro Met Lys Asn Ala Leu Ala Val
                165                 170                 175
Ala Leu Met Asp His Ala Leu Ala Ile Lys His Ala Leu Ala Leu Tyr
            180                 185                 190
Ala Arg Pro Ala His Gln Ala Thr Gln Ala Glu Leu Met Arg Gln Phe
        195                 200                 205
Glu Glu Ala Phe Ala Pro Glu Leu Val Ser Leu Asn Pro Val Val Ala
    210                 215                 220
Glu Ser Pro Ala Thr Gln Arg Gln Ser Pro Val Ser Ala Glu Asn Arg
225                 230                 235                 240
Gln Lys Gln Ser Gln Ser Arg Ser Ile Ser Pro Arg Asn His Val Arg
                245                 250                 255
Lys Pro Ser Glu Lys Pro Ser Val Ser Gln Arg Ile Ser Ile Met Asn
            260                 265                 270
Pro Phe Lys Arg Ala Asn His Ala Pro Asn Gly Ser Val Ala Thr Val
        275                 280                 285
Ile Asp Met Lys Thr Glu Gly Lys Asp His Asp Asp Asp Thr Ala Thr
    290                 295                 300
Ile Tyr Ser Arg Thr Thr Ala Gln Ser Gly Thr Thr His Thr Lys Arg
305                 310                 315                 320
Arg Ser Phe Phe Gly Glu Met Val His Lys His Gly Ser Ser Ile Ala
                325                 330                 335
Ala Ser Thr Glu Asp Val Gln Glu Gln Leu Ser Arg Ser Gly Ser Arg
            340                 345                 350
Ser Gln Asp Asn Arg Ser Arg Ser Gly Ser Gln His His Gly Pro Ser
        355                 360                 365
Gly Asp Asp Ser Ile Ser Ser Ile Lys Gly Gly Gly Val Ala Lys Ala
    370                 375                 380
Thr Ser Val Arg Asp Asn His Ser Val Arg Ser Ser Asp Arg Ser Gln
385                 390                 395                 400
Val Gly Ser Pro Gly Gly His Ser Tyr Ser Gln Ser His Ser Gly Gly
                405                 410                 415
Val Arg Asp Ser Val Met Lys Arg Leu Ser Leu Phe Lys Gly Val Gly
            420                 425                 430
Arg Lys Thr Ser Arg Leu Glu Ile Arg Pro Glu Thr Asn Gly Val Leu
        435                 440                 445
Arg Glu Glu
    450
```

<210> 38516
<211> 106
<212> PRT
<213> A.fumigatus

<400> 38516
Ser Val Leu Phe Asn His Ala Val Arg Asp Ser Arg Arg Ser Ile Ser

```
1               5                   10                  15
Val Ser Tyr Leu Thr Pro Asp Ile Asn Pro Arg Arg Asn Arg His Cys
            20                  25                  30
Arg Pro Ser Thr Phe Arg Pro Phe Pro Tyr His Ser Leu Thr Pro Ser
        35                  40                  45
Ser Thr Glu Ile Ile Cys Ser Thr Leu Ser Leu Tyr Ile Ala Tyr Glu
    50                  55                  60
Tyr Ala Val Leu Gln Val Leu Lys Pro Ile Gln Thr Ala His Asp Pro
65                  70                  75                  80
Tyr Met Arg Asn Ala Pro Ile Phe Asp Gly Phe Pro Ser Leu Ser Pro
                85                  90                  95
Trp Ile Ser Ser Arg Ala Gly Gly Phe Gly
            100                 105
```

<210> 38517
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38517

```
Asn Arg Phe Arg Arg Pro Met Ile Leu Thr Cys Ala Met His Leu Phe
1               5                   10                  15
Ser Thr Ala Phe Leu Leu Tyr Leu His Gly Phe Leu Leu Ala Leu Val
            20                  25                  30
Ala Leu Gly Ser Ala Asp Ser Asp Val Asp Phe Met Ser Val Arg Ala
        35                  40                  45
Lys Phe Leu Lys Asp Tyr Ser Gly Lys Gly Gly Glu Pro Gly Glu Lys
    50                  55                  60
Tyr Phe Ser Lys
65
```

<210> 38518
<211> 164
<212> PRT
<213> A.fumigatus

<400> 38518

```
Gln Thr Leu Ile Arg Ala Gln Ile Phe Pro Trp Asp Asn Asp Leu Asp
1               5                   10                  15
Val Gln Val Thr Glu Pro Thr Ile His Phe Leu Ala Glu Tyr Tyr Asn
            20                  25                  30
Met Thr Glu His His Phe Glu Leu Pro Gly Val Asp Gly Gly Arg Asn
        35                  40                  45
Tyr Leu Leu Glu Ile Asn Pro Gln Tyr Val Val Arg Thr Ile Glu Asp
    50                  55                  60
Ala Ala Asn Val Ile Asp Ala Arg Trp Ile Asp Thr Ser Ser Gly Leu
65                  70                  75                  80
Phe Ile Asp Ile Thr Ala Val Arg Lys Asp Asp Glu Leu Arg Lys Lys
                85                  90                  95
Gly Gln Gln Gly Ala Leu Met Cys Lys Asp Gly His Arg Phe Asp Val
            100                 105                 110
Ser Gly Arg Gly Thr Arg Val Thr Arg Asp Gly Tyr Leu Pro Leu Ser
        115                 120                 125
Arg Arg Pro Ile Ser Ser His Phe Gly Ile Val Thr Leu Lys Thr Phe
    130                 135                 140
Leu Ser Lys Tyr Pro Thr Ser Thr Leu Ile Ser Leu Trp Lys Asn Met
```

145 150 155 160
Ala Pro Arg His

<210> 38519
<211> 60
<212> PRT
<213> A.fumigatus

<400> 38519
Ile Asp Lys Cys Ala Leu Asp Ile Ser Ile Cys Ile Ala Leu Gln Pro
1 5 10 15
Ser Ser Pro Pro Ala Val Pro Arg Pro Ser His Ser Glu Thr Arg Lys
20 25 30
Lys Lys Ser Thr Phe Lys Lys Asn Asn Asn Tyr Asp Asn Tyr Gly Ile
35 40 45
Ile Ile Ser Glu Asn His His Gly Cys Glu Pro Thr
50 55 60

<210> 38520
<211> 262
<212> PRT
<213> A.fumigatus

<400> 38520
Arg Thr Leu Ile Leu Leu Gly Ile Gly Ala Leu Val Thr Thr Phe Gly
1 5 10 15
Val Gly Glu Leu Ser Ala Val Asn Ala Ile Ala Gly Ala Tyr Ala Glu
20 25 30
Arg Ala Pro Val Val His Ile Val Gly Thr Pro Met Arg Ala Ser Gln
35 40 45
Glu Ser Arg Ala Met Ile His His Thr Phe Ile Asp Gly Glu Tyr Gln
50 55 60
Arg Phe Asp Arg Met Gln Glu His Val Thr Val Ala Gln Val Ser Leu
65 70 75 80
Ser Asp His Arg Thr Ala Pro Ala Glu Ile Asp Arg Ile Leu Leu Gln
85 90 95
Cys Leu Leu His Ser Arg Pro Val Arg Ile Thr Ile Pro Val Asp Met
100 105 110
Val Pro Val Leu Val Pro Thr Ala Gly Leu Ala Ser Lys Ile Glu Ile
115 120 125
Pro Pro Pro Val Arg Gln Pro Gln Val Glu Glu Ala Ala Leu Thr Ala
130 135 140
Val Leu Glu Arg Ile Tyr Asn Ala Lys Lys Pro Met Ile Leu Val Asp
145 150 155 160
Gly Glu Thr Arg Ala Phe Gly Thr Val Asn Glu Val Asn Gln Phe Val
165 170 175
Thr Thr Thr Gly Trp Pro Thr Phe Thr Ser Gly Phe Gly Lys Gly Leu
180 185 190
Val Asp Glu Thr Leu Pro Asn Val Tyr Gly Val Tyr Arg Pro Ala His
195 200 205
Lys Glu Phe Val Asp Ser Cys Asp Leu Val Leu Ala Phe Gly Pro His
210 215 220
Phe Ser Asn Thr Asn Thr Tyr Ile Phe Met Val Arg Pro Gln Asp Glu
225 230 235 240
Thr Ser Val Leu Phe Asn Pro Thr Ser Val Gln Val Asn Lys Asp Ile

245 250 255
Tyr Arg Asp Leu Pro Ala
260

<210> 38521
<211> 66
<212> PRT
<213> A.fumigatus

<400> 38521
Pro Tyr Glu Arg Lys Met Lys Leu Phe Leu Ser Ser Val Arg Phe Trp
1 5 10 15
Pro Phe Arg Gly Leu Leu Leu Pro Leu Asn Thr Pro Ser Glu Pro His
20 25 30
Asp Val Met Ser Asn Ala Cys Phe Tyr Pro Ile Ser Ala Glu Tyr Arg
35 40 45
Lys Pro Glu Lys Leu Ser Thr Ile Thr Pro Lys Leu Gly Ser Leu Pro
50 55 60
Ser Ile
65

<210> 38522
<211> 111
<212> PRT
<213> A.fumigatus

<400> 38522
Ser Ser Phe Trp His Ile Ser Arg Asn Gly Ala Lys Ser Asp Gly Pro
1 5 10 15
Arg Arg Glu Arg His Arg Thr His Ser Gln Lys Gln Arg Arg Leu Asn
20 25 30
Met Asp Ser Asp Thr Leu Pro Leu Ala Gln Tyr Leu Phe Lys Arg Leu
35 40 45
Arg Gln Leu Gly Val Asp Ser Ile Phe Gly Val Pro Gly Asp Tyr Asn
50 55 60
Leu Thr Leu Leu Asp His Val Val Pro Ser Gly Leu Lys Trp Val Gly
65 70 75 80
Asn Cys Asn Glu Leu Asn Ala Gly Tyr Ala Ala Asp Gly Tyr Ser Arg
85 90 95
Ile Lys Gly Thr Cys His Ala Ser Ser Tyr Cys Leu Asp Gly Arg
100 105 110

<210> 38523
<211> 118
<212> PRT
<213> A.fumigatus

<400> 38523
Phe Leu Ser Pro Glu Ser Leu Gly Pro Arg Cys Leu Leu Ser Ile Val
1 5 10 15
Cys Tyr Cys Gln Asn Cys Ala Cys Thr Glu Asn Arg Phe Ser Ser Arg
20 25 30
Gln Gln Leu Asp Tyr Asn Gly Gly Val Tyr Lys Arg Thr Tyr Phe Tyr
35 40 45
Glu Pro His Cys Thr Asn Lys Asp Thr Tyr Ile Leu Gly Val Tyr Pro
50 55 60

```
Gln Ala Leu Glu Thr Cys Ser Leu Tyr Gly Arg Ser Ser Ser Pro Arg
65                  70                  75                  80
Ser Asn Ser Asn Gly Asn Leu Ser Phe Arg Arg Phe Met Asn Arg Gln
                85                  90                  95
Asn Ser Thr Trp Thr Gln Thr Ser Pro Phe Gly Ile Thr Ser Thr Val
            100                 105                 110
Arg Leu Lys Arg Ile Pro
        115
```

<210> 38524
<211> 362
<212> PRT
<213> A.fumigatus

<400> 38524

```
Cys Pro Ser Phe Glu Ala Leu Arg Leu Lys Val Ala Ile Met Ser Glu
1               5                   10                  15
Val Asn Leu Asp Asn Phe Lys Ser Leu Asp Ala Leu Arg Lys Val Phe
            20                  25                  30
Ser Thr Tyr Arg Glu Leu Ser Leu Thr Glu Arg Pro Ile Val Phe Ile
        35                  40                  45
Val Ile Gly Asn Phe Val Gln Lys Ala Thr Ile Asn Gly Gly Gly His
    50                  55                  60
Ala Gly Ser Ile Glu Tyr Asn Glu Tyr Phe Asp Ser Leu Ser Ile Ile
65                  70                  75                  80
Leu Ala Asp Tyr Pro Glu Leu Leu Gln His Ser Thr Phe Val Phe Val
                85                  90                  95
Pro Gly Asp Asn Asp Pro Trp Ser Ser Thr Phe Thr Ala Gly Ala Ala
            100                 105                 110
Ser Ile Val Pro Arg Gln Ser Ile Pro Asp Met Phe Thr Ser Arg Val
        115                 120                 125
Lys Arg Ala Phe Ala Ser Ala Asn Ser Glu Ser Arg Leu Ser Gln Ala
    130                 135                 140
Ser Glu Pro Ala Gly Glu Ala Ile Trp Thr Ser Asn Pro Ser Arg Leu
145                 150                 155                 160
Thr Val Phe Gly Pro Leu His Asp Ile Ala Ile Phe Arg Asp Asp Ile
                165                 170                 175
Thr Gly Arg Leu Arg Arg Asn Ala Val Ala Thr Lys Gln Gly Glu Asn
            180                 185                 190
Glu Arg Asp Ser Ala Phe Ser Gln Asp Ala Gly Ala Glu Ala Gly Leu
        195                 200                 205
Ala Thr Ala Asn Asn Glu Thr Asp Ala Gln Ala Tyr Pro Ala Asp Ala
    210                 215                 220
Lys Ala Arg Gln Ser Phe Ser Ser Ala His Thr Ala Arg Lys Leu Val
225                 230                 235                 240
Lys Thr Ile Leu Asp Gln Gly Ser Ile Ser Pro Phe Pro Gln Ser Met
                245                 250                 255
Arg Pro Val Leu Trp Asp His Ala Ser Ser Leu Gln Leu Tyr Pro Leu
            260                 265                 270
Pro Thr Ala Phe Ile Leu Ala Asp Pro Glu Val Ala Pro Phe Cys Met
        275                 280                 285
Thr Tyr Glu Gly Cys His Val Met Asn Pro Gly Arg Phe Ile Ser Glu
    290                 295                 300
Glu Gly Ser Thr Cys Met Thr Trp Val Glu Tyr Asp Ile Leu Lys Asn
305                 310                 315                 320
Arg Gly Arg Val Lys Glu Glu Arg Leu Tyr Gln Ile Ile Thr Ala Ile
```

```
                325                 330                 335
Leu Leu Val Leu Arg Ile Leu Phe His Val Leu Arg Pro Thr Glu Leu
            340                 345                 350
Ser Lys Ala Glu Lys Leu Ile Ala Cys Asn
        355                 360
```

<210> 38525
<211> 64
<212> PRT
<213> A.fumigatus

<400> 38525

```
Pro Ser Ile Met Leu Ser Ala Gly Glu Thr Ser Ile Glu Gly Pro Asn
1               5                   10                  15
Asn Ile Ala Asp Ser Leu Ser Val Cys Asn His Ser Ile Ser Lys Thr
            20                  25                  30
Phe Pro Thr Val Ser Leu Gly Met Ile Gln Cys Ala Ser Gln Pro Gly
        35                  40                  45
Phe Glu Leu Val Val Ala Trp Pro Ser Leu Arg Ala Thr Gln Phe Pro
    50                  55                  60
```

<210> 38526
<211> 865
<212> PRT
<213> A.fumigatus

<400> 38526

```
Glu Arg Val Ile Phe Gln Pro Arg Trp Trp Lys Thr Ile Asn Arg Ile
1               5                   10                  15
Ile Ser Ala Arg Leu Ala Leu His Asp Leu Ile Pro His Pro Phe Arg
            20                  25                  30
Thr Tyr Arg Val His Asp Gly Arg Val Thr Phe Val Val Arg Gly Glu
        35                  40                  45
Phe Glu Leu Asp Leu Ser Ile Gly Ala Glu Ser Glu Leu Ser Gln Phe
    50                  55                  60
Phe Phe Val Asp Ile Arg Phe Leu Tyr Ser Pro Ser Ser Asn Ile Pro
65                  70                  75                  80
Lys Gly Arg Met Ser Asn Glu Ile Asp Ala Lys Ile Asn Glu Lys Leu
                85                  90                  95
Arg Asp Ser Gly Leu Thr Gly Cys Phe Asn Phe Leu His Gly Leu Val
            100                 105                 110
Leu Thr Asn Lys Ile His Ile Leu Phe Lys Gln Ala Ile Glu Leu Ala
        115                 120                 125
Lys Gly Leu Trp Ser Glu Thr Leu Arg Val Glu Leu Leu His Arg Thr
    130                 135                 140
Leu Val Ile Gln Tyr Trp Thr Leu Lys Pro Gly Pro Lys Ser Trp Ile
145                 150                 155                 160
Glu Ile Gly Val Lys Ser Gly Asn Gly Asp Ala Asp Ser Gln Gly Leu
                165                 170                 175
Gly Val Pro Cys Leu Gly Leu Arg Trp Met Arg Asp Gly Gln Glu Val
            180                 185                 190
Asn Ser Arg Asp Ile Glu Phe Asp Pro Glu Asp Leu Ser Met Glu Cys
        195                 200                 205
Leu Leu Arg Ser Val Ile Ala Leu His Ile Ser Tyr Leu Leu Ser Ser
    210                 215                 220
Ala Tyr Gly Ile Leu Ser Glu Tyr Ser Leu Phe Ser Ser Gly Thr Leu
```

225 230 235 240
Ser Ser His Ala Ile Leu Asn Val Thr Glu Pro Gly Glu Cys Gln Leu
245 250 255
Ser Val Gln Leu Thr Gly Ser Arg His Leu Arg Val Ser Ile Glu Pro
260 265 270
Met Ser Gly Ala Val Ile Leu Ser Ala Thr Pro Gly Leu Leu Glu Arg
275 280 285
Phe Glu Ser Asp Ala Ser Leu Asp Arg Ser Thr Ile Asp Asp Leu Val
290 295 300
Ala Arg Val Ser Arg Leu Arg Cys Ile Ala Ala Ile Glu Glu Leu Glu
305 310 315 320
Ser Asn Val Arg Ile Leu Gly Phe Glu Thr Val Ser Pro Lys Gly Leu
325 330 335
Arg Asn Asp Ile Arg Lys Val Phe Pro Ala Asn Val Leu Arg Phe Ser
340 345 350
Leu Phe Trp His Pro Leu Trp Glu Arg Asn Trp Val Val Ala Ala Thr
355 360 365
Ser Ser Ile Thr Ser Asp Asn Trp Trp Val Val Arg Leu Arg Arg Ser
370 375 380
Ser Glu Val Ala Thr Asp Phe Ser Val Ser Asp Thr Ser Val Pro Leu
385 390 395 400
Cys Ser Gly His Ser Met Ser Asp Thr Phe Leu Ala Thr Ser His Gln
405 410 415
Thr Arg Ser Ser Ser Phe Pro Asp Leu Gly Tyr Cys Leu Ser Gly Met
420 425 430
Val Ala Ile Tyr Ala Asn Val Ser Tyr Leu Ser Asp Leu His Ser Val
435 440 445
Glu Phe His Pro Pro Leu Cys Ala Leu Lys Val Glu Ser Asp Leu Gln
450 455 460
Ile Pro Asp Ile Phe Ile Arg Tyr Gln Val Ser Asn Leu Pro Arg Ala
465 470 475 480
Leu Gln Leu Val Leu Pro Ala Gly Leu Lys Arg Lys Asn Leu Leu Lys
485 490 495
Asp Thr Val Arg Leu Ala Phe His Gly Ile Asp Arg His Lys Asn Ser
500 505 510
Ala Ile Phe Val Ala Tyr Gly Asn Leu Val Gly Pro Trp Thr Asp Leu
515 520 525
Cys Thr Leu Ile Ser Lys Ser Asp Ser Ser Leu Val Phe Lys Gln Gly
530 535 540
Gly Ser Gly Phe Ala Leu Arg Leu Leu Ala Pro Ala Gly Arg Pro Val
545 550 555 560
Ile Val Gln Leu Phe Lys Ser Leu Gln Thr Leu Glu Cys Thr Leu Ser
565 570 575
Ile Leu Asp Phe Leu Arg Gln Arg Arg Leu Thr Pro Gln Ser Leu Ser
580 585 590
Leu Thr His Ile Ala Phe Ala Tyr Gly Pro Gly Arg Asp Leu Ser Ala
595 600 605
Thr Ile Glu Met Gly Leu Ser Glu Val Pro Ser Ser Ala Glu Leu Asp
610 615 620
Pro Val Arg Val Leu Ala Arg Thr Asp Pro Leu Leu Cys Leu Thr Leu
625 630 635 640
Gly Ile Arg Phe Lys His Pro Asn Pro His Arg Arg Val Gln Gly Ser
645 650 655
Leu Ala Ala Ile Leu Asn His Ala Ser Asn Glu Ala Gly Leu Asp Phe
660 665 670
Val Thr Glu Val Leu Ser Phe Thr Leu Pro Leu Met Arg Ala Leu Glu

675 680 685
Gln Ile Thr Ser Asn Ala Ser Arg Gln Glu Pro Phe Arg Leu Gln Val
690 695 700
Ile Val Arg Asn Ala Tyr Thr Phe Leu Leu His Tyr Thr Tyr Gln Gly
705 710 715 720
Phe Arg Phe Gln Leu Thr Thr Arg Gln His Ser Gly Gln Leu Thr Trp
725 730 735
Val Leu Arg Glu Leu Ser Ser Pro Glu Ala Gly Pro Gly His Asp Gln
740 745 750
Phe Lys Ala Arg Leu Arg Gly Thr Leu Tyr His Ser Lys Gly Asn Gly
755 760 765
Trp Lys Gly Leu Gly Asn Gly Val Val Ala Asp Ala Glu Gly Val Ser
770 775 780
Asn Val Ile Arg Ala Leu Asp Gly Cys Phe Thr Gly Ala Gln His Asn
785 790 795 800
Thr Trp Leu Pro Arg Glu Thr Lys Ser Glu Gln Asp Tyr Ser Thr Gln
805 810 815
Pro Ala Pro Glu Asn Gln Ser Gln Thr Gly Ala Pro Ser Gln Ala Gly
820 825 830
Met Ala Asn Asp Thr Lys Met Thr Ala Asn Phe Val Asn Asp Lys Ser
835 840 845
Leu Gln Arg Asn Pro Val Val Ser Asn Ala Ala Asp Val Ile Thr Ile
850 855 860
Asp
865

<210> 38527
<211> 173
<212> PRT
<213> A.fumigatus

<400> 38527
His Val Cys His Val Arg Leu Asp Arg Arg Ala His Pro Pro Ala Gln
1 5 10 15
Trp Ser Ala Pro Arg Ile Cys Pro Gly Asp Pro Gln Pro Asp Arg Asp
20 25 30
Gln Ser Gly Thr Asp His Ala Pro Thr Gly Thr Gly Gly Pro Val Gly
35 40 45
Ser Asp Tyr Thr Thr Ala Pro Arg Pro Ala Arg Ser Pro Arg Trp Pro
50 55 60
Ser Asp Asn His His Ala Val Gly Arg Gly Ser Gly Arg Asp Gly Ala
65 70 75 80
Ala Ala Ala His Pro Arg Arg Ala Glu Ser Arg Pro His Ala Gly Leu
85 90 95
Asp Val Arg Pro Leu Ser Arg Gln Tyr His Arg His Ala Leu Gly Asp
100 105 110
Gln Asp Pro Leu Cys Arg Asp His Arg Pro Gly Gly His Pro His Leu
115 120 125
Arg Gly Ser Ser Ser Gln Arg Val Val His Gly Gly Ala Pro Pro Gly
130 135 140
Thr Asp Gly Arg Ile Arg His Arg Val Arg Gly Arg Leu Gly His Phe
145 150 155 160
Leu Arg Ala Gly Leu Asp Asp Lys Leu Pro Gln Ser Val
165 170

<210> 38528

<211> 455
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (68)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38528

```
Gln Ile Ile Leu Ser Met Leu Ser Pro Asp Leu Gln Pro Gly Lys Val
1               5                  10                  15
Pro Pro Pro Ser Gln Asn Gly Val Glu Leu Gly Ser Ser Asp Gly Trp
            20                  25                  30
Thr Pro Gln Ser Trp Arg Lys Arg Pro Ala Ile Ala Gln Glu Ile Glu
        35                  40                  45
Tyr Lys Glu Pro Leu Gln Leu Glu Glu Val Leu Arg Thr Phe Val Pro
    50                  55                  60
Leu Pro Pro Xaa Phe Ser Pro Val Lys Ile Glu Leu Ala Arg Lys His
65                  70                  75                  80
Phe Ala Ala Ala Ala Arg Gly Glu Ala Phe Ile Ile Gln Gly Gly Asp
                85                  90                  95
Cys Ala Glu Ser Phe Gln Asp Val Arg Pro Leu Ile Val Gln Gln Lys
            100                 105                 110
Val Gln Leu Leu His Glu Gln Ser Arg Leu Leu Arg Asp Ser Leu Gly
        115                 120                 125
Leu Pro Val Ile Thr Val Gly Arg Ile Ala Gly Gln Tyr Ala Lys Pro
    130                 135                 140
Arg Ser Cys Pro Phe Glu Thr Leu Ala Asp Gly Ser Gln Val Tyr Ser
145                 150                 155                 160
Phe Arg Gly Glu Asn Val His Gly Phe His Pro Asp Asp Arg Thr Pro
                165                 170                 175
Asp Pro Ser Arg Leu Leu Gln Ala Tyr Phe His Ala Arg Ala Thr Leu
            180                 185                 190
Asp Leu Met Lys Ala Cys Pro Pro Leu Arg Thr Pro Pro Ser Val Asp
        195                 200                 205
Ala Ile Ala Ser Pro Gly Arg Asp Leu Phe Arg Thr Asn Leu Pro Gly
    210                 215                 220
Glu Pro Gly Gln Gly Pro Ile Phe Thr Ser His Glu Ala Leu His Leu
225                 230                 235                 240
Pro Tyr Glu Ser Ala Val Thr His Gly Arg Tyr Asn Thr Ser Ala Thr
                245                 250                 255
Phe Val Trp Ile Gly Glu Arg Thr Arg Gln Arg Asn Gly Pro His Leu
            260                 265                 270
Glu Tyr Val Arg Gly Ile Arg Asn Pro Ile Gly Ile Lys Val Gly Pro
        275                 280                 285
Thr Met His Pro Gln Glu Leu Val Asp Leu Leu Asp Leu Ile Ile Arg
    290                 295                 300
Gln Pro Gln Asp Arg His Asp Pro Gln Asp Gly Arg Val Thr Ile Ile
305                 310                 315                 320
Thr Arg Leu Gly Ala Asp Gln Val Glu Thr Val Leu Pro Pro Leu Ile
                325                 330                 335
His Ala Val Gln Lys Ala Gly His Thr Pro Val Trp Met Cys Asp Pro
            340                 345                 350
Cys His Gly Asn Thr Thr Val Thr Pro Ser Gly Ile Lys Thr Arg Cys
        355                 360                 365
```

```
Val Glu Thr Ile Val Arg Glu Val Ile Arg Thr Phe Glu Val His Arg
    370                 375                 380
Ala Ser Gly Ser Phe Met Gly Gly Leu His Leu Glu Gln Thr Gly Glu
385                 390                 395                 400
Phe Val Thr Glu Cys Val Asp Ala Trp Asp Thr Ser Cys Glu Arg Asp
                405                 410                 415
Leu Thr Thr Asn Tyr Arg Ser Leu Cys Asp Pro Arg Leu Ser Tyr Ile
            420                 425                 430
Gln Ala Leu Ala Val Val Arg Ser Phe Leu Asp His Val Cys Cys Ser
        435                 440                 445
Thr Ser Lys Ala His Gly Leu
    450                 455
```

<210> 38529
<211> 202
<212> PRT
<213> A.fumigatus

<400> 38529

```
Leu Lys Ser Pro Gly Arg Glu Asp Glu Ala Ala Tyr Arg Pro Ala Asn
1               5                   10                  15
Leu Gln Leu Pro Val Lys Met Lys His Leu Val Ala Phe Thr Leu Asn
            20                  25                  30
Ala Ala Leu Val Leu Gly Val Val Val Leu Gln Arg Arg Asp Glu Ser
        35                  40                  45
Thr Gln Gln Gln His Pro Leu Leu Asp Ser Phe Arg His Ser Pro Gly
    50                  55                  60
Ile Ala Thr Asp Asp Ala Leu Val Arg Gln Cys Ile Ala Pro Gly Val
65                  70                  75                  80
Val Cys Val Asp Lys His Gly Ala Asn Leu Pro Tyr Pro Phe Trp Arg
                85                  90                  95
Asp Ser Pro Asn Gly Thr Tyr Ala Thr Asn Leu Ala Asp Ile Glu Phe
            100                 105                 110
Thr Gly Gly Arg Gly Gln Pro Lys Ser Thr Ser Trp Glu Gln Val Glu
        115                 120                 125
Arg Ala Asp Phe Val Val Phe Asp Glu Glu Arg Gly Arg Lys Leu Leu
    130                 135                 140
Gly Glu Asn Pro Arg Val Asp Phe Val Phe Ser Val Asn Pro Trp Ala
145                 150                 155                 160
Leu His Glu Ala Pro Thr Tyr Val Pro Gly Leu His Gln Ile Phe Phe
                165                 170                 175
Ser Glu Leu Ser Pro Met Leu Glu Gln Phe Val Ile Glu Leu Lys Val
            180                 185                 190
Asp Pro Pro Thr Leu Ser Thr Phe Arg Ala
        195                 200
```

<210> 38530
<211> 192
<212> PRT
<213> A.fumigatus

<400> 38530

```
Asp Asp Arg Arg Arg Asp Arg Pro Ala Pro Gly Gln Leu Ser Leu His
1               5                   10                  15
His Pro Pro Asp Cys Ser Pro Pro Gly Ala Arg Gly Leu Pro Gly Val
            20                  25                  30
```

```
Arg Arg Arg Arg Pro Glu Cys Gln Val Ala Pro His Gly Trp Arg Pro
        35                  40                  45
His Ala Arg Gln Pro Ala Ala Asp Gly Phe Gln Ala Ile Arg Gly Arg
    50                  55                  60
Ser Leu Gly Pro Arg Met Gly His Leu Arg Asp His Ala His Cys His
65                  70                  75                  80
Pro Ala Arg Arg Arg Leu Pro Pro Gln Trp Val Gln Trp His Pro Arg
                85                  90                  95
Glu Arg Asn Ala Gly Gln Ser His Gln Pro Gly His Arg Pro Gly Thr
            100                 105                 110
Gly Arg Gly Arg Gly Gly Arg Asp Pro Gly Ala Gln Ser Ala Val Ser
        115                 120                 125
Ile Gln Gly Leu Gln Gly Gln Arg Gly Gly Gln Ser Arg Leu Arg Arg
    130                 135                 140
Arg Arg Leu Val Pro His Gly Gly Leu Trp Ala Pro Arg Arg Glu Leu
145                 150                 155                 160
Gln Arg Leu His His Gly Ser Asp Gln Gly Ala Pro Gln Gly Arg Arg
                165                 170                 175
Arg Leu Arg Asp Ala His Leu Arg Gly Gly Ala Gly Asp Arg Gly Val
            180                 185                 190
```

<210> 38531
<211> 406
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (367)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38531

```
Gly Leu Asp Val Arg Gln Ser Arg Ile Thr Gln Thr Ala Val Val Cys
1               5                   10                  15
Arg Gln Val Pro Leu Ala Arg Ser Val Pro Gly Val His Ala Leu Gly
            20                  25                  30
Asp Glu Phe Ala Arg Leu Phe Gln Val Glu Pro Pro His Glu Arg Pro
        35                  40                  45
Ala Gly Ser Met Asn Leu Glu Gly Ala Asp Asp Leu Pro Asp Asp Gly
    50                  55                  60
Leu Asp Thr Ala Gly Leu Asp Pro Arg Gly Arg Asp Gly Gly Ile Ala
65                  70                  75                  80
Val Thr Gly Val Ala His Pro Asp Arg Arg Val Ala Gly Phe Leu His
                85                  90                  95
Gly Val Asp Glu Arg Arg Gln His Arg Leu Asp Leu Ile Arg Ala Gln
            100                 105                 110
Pro Arg Asp Asp Cys His Ser Ala Ile Leu Gly Ile Val Pro Val Leu
        115                 120                 125
Gly Leu Ser Tyr Asn Gln Ile Gln Gln Val His Gln Phe Leu Trp Val
    130                 135                 140
His Gly Arg Ser His Phe Asp Pro Asp Arg Val Ala Asp Pro Pro Asp
145                 150                 155                 160
Ile Phe Glu Val Arg Thr Ile Ala Leu Ala Gly Ala Leu Ala Asp Pro
                165                 170                 175
Asp Glu Arg Gly Arg Arg Val Ile Ala Ala Val Gly Asp Arg Ala Leu
            180                 185                 190
```

```
Val Arg Gln Val Glu Gly Phe Met Arg Cys Glu Asp Gly Pro Leu Ser
        195                 200                 205
Arg Leu Pro Arg Glu Ile Arg Ala Glu Glu Val Pro Ser Arg Arg Arg
    210                 215                 220
Asp Gly Ile Asp Gly Arg Gly Arg Pro Gln Trp Arg Ala Gly Phe His
225                 230                 235                 240
Gln Ile Gln Cys Arg Pro Gly Val Glu Ile Cys Leu Gln Gln Ser Ala
                245                 250                 255
Gly Val Arg Gly Ala Ile Val Gly Met Glu Pro Val Asp Val Phe Ala
            260                 265                 270
Pro Glu Ala Val Asp Leu Arg Pro Ile Gly Gln Gly Phe Glu Gly Thr
        275                 280                 285
Gly Ser Arg Phe Gly Ile Leu Ala Gly Asp Ser Ser His Arg Asp His
    290                 295                 300
Gly Gln Ala Gln Arg Val Pro Glu Gln Pro Arg Leu Phe Val Lys Gln
305                 310                 315                 320
Leu His Leu Leu Leu His Asp Gln Gly Pro His Val Leu Glu Ala Leu
                325                 330                 335
Cys Thr Ile Ser Ala Leu Asp Asp Lys Gly Phe Ser Ala Ser Arg Cys
            340                 345                 350
Arg Lys Val Phe Ala Gly Gln Phe Asn Leu Asp Arg Ala Glu Xaa Gly
        355                 360                 365
Arg Gln Arg Asn Glu Arg Ala Gln Asp Phe Leu Gln Leu Gln Arg Phe
    370                 375                 380
Phe Val Phe Asn Leu Leu Arg Asn Arg Arg Thr Leu Ser Pro Thr Leu
385                 390                 395                 400
Gly Arg Pro Thr Ile Arg
                405
```

<210> 38532
<211> 665
<212> PRT
<213> A.fumigatus

<400> 38532

```
Ala Pro Pro Lys Val Lys Glu Asn Ala Gly Val Thr Ser Thr Ala Ser
1               5                   10                  15
Leu Ile Gln Ile Val Leu Val Val Thr Gln Gly Val Ala Gly Arg Arg
            20                  25                  30
Thr Leu Ser Gly Pro Ser Pro Thr Pro Gly Val Val Gly Pro Ser Gly
        35                  40                  45
Leu Ser Ala Ser Ser Leu His Met Ala Ala Leu Ala Met Asp Arg His
    50                  55                  60
Cys Gly Leu Ala Asp Ile Gln Ser Gly Asp Thr Ala Leu Asp Pro Tyr
65                  70                  75                  80
Leu Ile Ala Phe Arg Ser Ser Arg Cys Ser Leu Glu Ser Thr Leu Ser
                85                  90                  95
Lys Asn Arg Arg Arg Thr Glu Asp Thr Gly Thr His Leu Arg Tyr Gln
            100                 105                 110
Gln Thr Ser Thr Ala Val Ala Asn Leu Thr Val Val Pro Val Ser His
        115                 120                 125
Leu Gln Ile His Ser Thr Gly Leu Ala Ala Ser Thr Met Ile Phe Glu
    130                 135                 140
Ser Lys Leu Pro Leu Pro Ser Val Pro Lys Thr Asp Val Phe Asn Tyr
145                 150                 155                 160
Ile Phe His Gln Gly Arg Arg Pro Tyr Pro Trp Ser Arg Val Leu Tyr
```

```
                 165                 170                 175
Arg Val Asp Gln Thr Gly Glu Thr Leu Thr Leu Ala Glu Leu Glu Glu
            180                 185                 190
Lys Ser Arg Arg Leu Ala Asp Ala Leu Arg Ser Glu Tyr Glu Ile Met
        195                 200                 205
Pro Lys Asp Val Val Gly Ile Phe Ala Lys Asp Arg Val Cys Trp Glu
    210                 215                 220
Gln Ser Leu Ser Leu Ser Leu Ser Leu Ser Leu Ser Leu Ser Leu Cys
225                 230                 235                 240
Val Val Ser Cys Leu Arg Leu Thr Ala Trp Glu Gln Ile Gln Tyr Pro
                245                 250                 255
Ile Ala Tyr Phe Gly Ala Leu Ala Ala Gly Ala Thr Val Ala Leu Ile
            260                 265                 270
Pro Val Gln Gln Glu Met Ser Glu Thr Asp Ile Ala Thr Arg Leu Val
        275                 280                 285
Gln Ser Gln Val Lys Leu Leu Ile Thr Asp Ser Asp Leu Leu Arg Leu
    290                 295                 300
Ala Glu Val Ser Thr Asp Leu Ala Gly Ala Val Arg Leu Ile Thr Leu
305                 310                 315                 320
Asp Asp Ser Pro Asn Gln Leu Trp Ala Ser Leu Glu Arg Leu Leu Ala
                325                 330                 335
Arg Gly Arg Pro Asp Ala Asp Leu Phe Arg Leu Glu Ser Glu Ala Ser
            340                 345                 350
Ala Glu Glu Tyr Asp Ala Phe Leu Asn Arg Thr Ser Gly Ser Thr Gly
        355                 360                 365
Asn Val Lys Ser Val Leu Thr Ser His Ala His Phe Ile Ala Thr Met
    370                 375                 380
Glu Gly Thr Ile Gly Thr Ile Pro Asp Asn Thr Asp Pro Asp His Asp
385                 390                 395                 400
Val Trp Leu Ser Pro Leu Ser Leu Gly Phe Phe Ile Asn Ala Lys Leu
                405                 410                 415
His Met Gly Leu Asn Ile Leu Leu Gly Ile Pro Val Val Leu Met Asn
            420                 425                 430
Gly Pro Leu Asp Glu Thr Thr Val Asp Val Ile Gly Arg His Gln Val
        435                 440                 445
Ser Phe Leu Phe Ile Thr Pro Pro Ile Ala Ala Arg Leu Ala Arg Ala
    450                 455                 460
Asp Phe Gln Ala Ser Gly Val Asp Val Arg Ser Val Lys Trp Leu Leu
465                 470                 475                 480
Thr Ala Gly Ala Pro Met His Asp Asn Leu Arg Gln Thr Val Ser Lys
                485                 490                 495
Gln Phe Gly Gly Val Pro Leu Asp Leu Glu Trp Gly Thr Ser Glu Thr
            500                 505                 510
Met Leu Ile Ala Ile Gln Arg Asp Ala Asp Ser Arg Arg Ser Gly Tyr
        515                 520                 525
Ser Gly Thr Leu Val Asn Gly Met Gln Ala Lys Val Ile Ser Arg Val
    530                 535                 540
Thr Gly Gln Glu Leu Gly Val Gly Glu Ala Gly Glu Ile Leu Val Arg
545                 550                 555                 560
Asn Arg Leu Cys Arg Phe Lys Gly Tyr Lys Asp Asn Glu Val Ala Asn
                565                 570                 575
Arg Asp Phe Asp Ala Glu Gly Trp Phe His Thr Gly Asp Tyr Gly His
            580                 585                 590
Leu Asp Glu Asn Cys Asn Val Phe Ile Met Asp Arg Ile Lys Glu Leu
        595                 600                 605
Leu Lys Val Gly Gly Gly Tyr Gly Thr His Ile Ser Ala Ala Glu Leu
```

```
    610                 615                 620
Glu Thr Val Val Phe Glu His Pro Ala Val Ala Ser Val Val Val Val
625                 630                 635                 640
Gly Ile Arg Asn Asp Phe Thr Gln Leu Asp Glu Pro Thr Ala Cys Leu
                645                 650                 655
His His Gly Ala Gly Arg Ser Arg Ala
            660                 665
```

<210> 38533
<211> 106
<212> PRT
<213> A.fumigatus

<400> 38533

```
Ile Arg Arg Ile Arg Asp Asn Gln Gln Ile Asp Met Asn His Asn Asn
1               5                   10                  15
Gly Tyr Tyr Tyr Leu Asn Arg Pro Asp Phe Tyr Asp Ala Val Thr Gln
            20                  25                  30
Pro Ser Asp Phe Leu His Thr Leu Gly Gly Cys Ser Pro Trp Met Glu
        35                  40                  45
His Arg Phe His Tyr Gly Asp Ser Arg Arg Ala Asp Ser Ser Phe Cys
    50                  55                  60
Thr Ala Met Ala Val Val Leu Ser Ala Tyr His Thr Ala Tyr Tyr Pro
65                  70                  75                  80
Thr Ser Ala Gly Glu Leu Ser Thr Asn Ser Asp His Val Pro Thr Thr
                85                  90                  95
Ala Leu Leu Ser Ser Ser Thr Thr Ser Leu
            100                 105
```

<210> 38534
<211> 244
<212> PRT
<213> A.fumigatus

<400> 38534

```
Cys Cys Asp Ser Thr Phe Gly Phe Ser Pro Tyr Ser Gly Trp Met Leu
1               5                   10                  15
Pro Val Asp Gly Ala Gln Ile Ser Leu Trp Gly Leu Lys Lys Ser Arg
            20                  25                  30
Gln Phe Ile Leu His Ser Asp Gly Gly Gly Pro Val Ser Leu Ser Tyr
        35                  40                  45
Arg Val Leu Ser Asp Ile Gly Arg Gly Ala Gln His Gln Leu Arg Ser
    50                  55                  60
Arg Ala Tyr His Ser Ser Thr Val Val Leu Asp Asn Glu Leu Ile Ser
65                  70                  75                  80
Leu Thr Thr Ser Val Leu Lys Glu Thr Ser Leu Ser Ser Phe Ile Ile
                85                  90                  95
Phe Leu Gln Ser Ile Lys Ser Leu Thr Asn Leu Leu Ser Ser Ser Phe
            100                 105                 110
Leu Asp Ser Leu Phe Leu His Pro His Ile Leu Arg Ile Thr Met Ala
        115                 120                 125
Ser Arg Gly Leu Pro Arg Ala Leu Arg Leu Ala Arg Val Ala Ala Pro
    130                 135                 140
Arg Thr Val Ile Ser Ala Ala Leu Pro Arg Pro Ala Leu Ala Lys Ala
145                 150                 155                 160
Ala Thr Arg Val Ala Ala Ser Thr Ala Pro Val Arg Gly Val Lys Thr
```

```
                165                 170                 175
Ile Ala Phe Ala Asp Ser Lys Glu Thr Val Tyr Glu Arg Ala Asp Trp
            180                 185                 190
Pro Arg Glu Lys Leu Gln Glu Tyr Phe Lys Asn Asp Thr Leu Ala Leu
        195                 200                 205
Ile Gly Tyr Gly Ser Gln Gly His Gly Gln Gly Leu Asn Leu Arg Asp
    210                 215                 220
Gln Gly Leu Asn Val Ile Val Trp Gly Pro Gln Gly Trp Cys Leu Met
225                 230                 235                 240
Glu Arg Gly Pro
```

<210> 38535
<211> 840
<212> PRT
<213> A.fumigatus

<400> 38535

```
Lys His His Leu Arg Ser Ser Tyr His Val His Thr Met Ser Leu Leu
1               5                   10                  15
Ser Ala Phe Ser Ala Leu Pro Thr Val Gln Thr Arg Lys Ala Leu Leu
            20                  25                  30
Leu Leu Asp Phe Gln Asn Asp Phe Val Arg Pro Ser Gly Ala Leu His
        35                  40                  45
Val Pro Asn Ala Ala Glu Ile Leu Glu Asn Ile Ala Gln Leu Val Thr
    50                  55                  60
Ala Phe Arg Arg Thr Gly Asp Val Ile Trp Val Arg Ser His Tyr Glu
65                  70                  75                  80
Ser His Arg Pro Leu Ile Asp Ser Asp Phe Gln Asp Arg Ile Val Leu
                85                  90                  95
Gly Arg Glu Thr Asp Glu Gln Arg Lys Arg Ala Glu Arg Pro Ser Ser
            100                 105                 110
Lys Thr Pro Val Asp Glu Glu Ala Phe Leu Ser Ser Glu Ser Ser Gln
        115                 120                 125
Cys Cys Arg Pro Gln Ser Ser Gly Phe Gln Leu Pro Ala Pro Val Leu
    130                 135                 140
Ala Ala Ile Asp Ala Glu Asn Asp Thr Leu Met Asp Lys Ser Asp Tyr
145                 150                 155                 160
Ser Ala Leu Gln Asp Glu Gly Met Ile Leu Ser Leu Arg Thr Arg Phe
                165                 170                 175
Ile Thr Glu Leu Tyr Leu Cys Gly Ser Leu Ser Asn Val Ser Val Tyr
            180                 185                 190
Ala Thr Ala Leu Asp Ala Val Arg His Gly Phe Ser Val Thr Leu Ile
        195                 200                 205
Glu Asp Cys Leu Gly Phe Arg Asp Phe Val Arg His Glu Glu Ala Met
    210                 215                 220
Arg Arg Met Ala Asp Ile Phe Gly Ala Ser Gly Ile Thr Thr Gln Glu
225                 230                 235                 240
Leu Phe Glu Glu Leu Asp Trp Gln Glu Thr Asp Ala Ile Ala Arg Gln
                245                 250                 255
Ser Thr His Arg Pro Val Arg Ala Val Thr Pro Ala Gly Ile Glu Gly
            260                 265                 270
Val Met Asp Glu Leu Asp Val Lys Thr Ile Arg Gly Pro Thr Ala Asn
        275                 280                 285
Glu Gly Thr Pro Glu Ser Leu Gly Ser Arg Arg Arg Arg Leu Asp Ala
    290                 295                 300
```

```
Leu Leu Ala Glu Gln Thr Asp Gly Glu Asp Asp Asp Pro Leu Asp Leu
305                 310                 315                 320
Thr Ser Leu Ala Arg Ser Arg Ser Arg Tyr Gly Pro Ser Gly Ser Pro
                325                 330                 335
Gly Ser Ser Ser Gln Ala His Gly Ala Gly Glu Lys Lys Ala Arg Val
            340                 345                 350
Arg Val Arg Arg Thr Arg Arg Gln Asp His Lys Val Asp Ala Ser Asn
        355                 360                 365
Arg Thr Glu Glu Arg Arg Ser Gly Lys Thr Lys Lys Ser Arg Asp Ile
    370                 375                 380
Arg Gly Pro Gly Asp Lys Ile Gly Glu Gly Asp Ser Arg Ile Ile Tyr
385                 390                 395                 400
Asp Leu Asp Leu Pro Glu Asp Ala Phe Ala Ser Ile Arg Ser Glu Val
                405                 410                 415
Ala Trp Gln Lys Met Tyr His Met Ser Gly Gln Val Pro Arg Leu Val
            420                 425                 430
Ala Val Gln Gly Gln Thr Arg Asp Asp Gly Ser Ile Pro Ile Tyr Arg
        435                 440                 445
His Pro Ala Asp Glu Ser Pro Pro Leu Arg Pro Phe Thr Pro Thr Val
    450                 455                 460
Asn Gln Ile Arg Ile Ile Val Glu Arg Ile Leu Gly His Pro Leu Asn
465                 470                 475                 480
His Val Leu Ile Gln Leu Tyr Arg Asp Gly Gln Asp Ser Ile Ser Glu
                485                 490                 495
His Ser Asp Lys Thr Leu Asp Ile Val Arg Gly Ser Phe Ile Cys Asn
            500                 505                 510
Val Ser Leu Gly Ala Gln Arg Val Met Thr Leu Arg Asn Lys Val Lys
        515                 520                 525
Ala Ala Asp Glu Asp Gln Arg Pro Thr Gln Arg Ile Ser Met Pro His
    530                 535                 540
Glu Ser Leu Phe Ile Leu Gly Glu Lys Thr Asn Met Arg Trp Leu His
545                 550                 555                 560
Gly Ile Arg Pro Asp Lys Arg Gln Ala Ala Glu Lys Ser Thr Glu Glu
                565                 570                 575
Leu Ala Tyr Gly Gly Glu Arg Ile Ser Leu Thr Phe Arg His Ile Gly
            580                 585                 590
Thr Phe Leu Asn Glu Ala Gly Asp Ala Ile Trp Gly Gln Gly Ala Val
        595                 600                 605
Ser Lys Asp Gln Ser Gln Ala Asn Thr Val Ile His Gly Asp Pro Ala
    610                 615                 620
Glu Thr Glu Arg Leu Val Arg Ala Phe Gly Gln Glu Asn Gln Ala Thr
625                 630                 635                 640
Glu Phe Asp Trp Asp Ala Val Tyr Gly Gly Gly Phe Asp Val Val Asn
                645                 650                 655
Phe Val Thr Thr Ser Thr Ala Lys Leu Val Glu Asp Ser Asp Pro Val
            660                 665                 670
Thr Asn Leu Arg Val Arg Leu Ala Leu Ser Glu Asn Gly Ile Arg Tyr
        675                 680                 685
Glu Val Ser Ala Ser Ser Glu Asp Glu Asn Ser Thr Glu Gly Lys Ala
    690                 695                 700
Arg Pro Val Leu Ile Thr Ala Asp Gly Thr Glu Val Ala Gly Glu Leu
705                 710                 715                 720
Asp Ile Met Asn Phe Leu Ala Lys His Ala Pro Glu Leu Thr Arg Ala
                725                 730                 735
Gly Val Glu Val Leu Arg Gly Gly Ser Gln Leu Leu Lys Ile Asn Glu
            740                 745                 750
```

```
Leu Leu Gln Asp Trp Arg Thr Ser His Ser Asn Gly Glu Lys Ile Asn
        755                 760                 765
Pro Glu Ser Leu Asp Leu Trp Glu Lys Ala Leu Asp Gly Gln Tyr Tyr
    770                 775                 780
Leu Gly Gly Ala Ala Leu Gly Leu Asp Asp Cys Phe Leu Trp Pro Val
785                 790                 795                 800
Leu Arg Asp Ile Val Gln Thr Cys Gly Pro Phe Ser Ser Asp Glu Tyr
                805                 810                 815
Pro Asn Leu Ala Gln Tyr Tyr Arg Arg Val Glu Lys Arg Gly Ile Val
            820                 825                 830
Lys Ala Thr Leu Glu Glu Leu Lys
        835                 840
```

<210> 38536
<211> 157
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (35)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38536

```
Phe Gln Asn Asp Gly Lys Phe Val Leu Tyr Tyr Ser Gly Glu Leu Lys
1               5                   10                  15
Asn Trp Lys Arg His His Cys Ile Gly Ala Ala Val Ser Glu Lys Glu
            20                  25                  30
Asp Pro Xaa Gly Pro Tyr Gln Pro Met Ser Glu Pro Leu Ala Cys Pro
        35                  40                  45
Arg Glu His Gly Gly Ala Ile Asp Pro Ser Pro Phe Arg Asp Thr Asp
    50                  55                  60
Gly Lys Leu Tyr Val Thr Tyr Lys Ser Asp Gly Asn Ser Ile Gly His
65                  70                  75                  80
Gly Gly Asp Cys Asn Asn Gly Lys Lys Pro Ile Val Lys Val Pro Ile
                85                  90                  95
Met Leu Gln Glu Leu Gln Asp Asp Gly Ile Thr Pro Val Gly Asp Pro
            100                 105                 110
Ile Glu Ile Leu Lys Asn Glu Gln Glu Asp Gly Pro Leu Val Glu Ala
        115                 120                 125
Pro Asn Ile Ile Arg Thr Asp Gln Gly Tyr Tyr Tyr Leu Phe Phe Ser
    130                 135                 140
Ser His Cys Phe Leu His Asn Gly Val Glu Gly Pro Arg
145                 150                 155
```

<210> 38537
<211> 67
<212> PRT
<213> A.fumigatus

<400> 38537

```
Leu Asn Val Gln Ser Ile Leu Ala Val Met Ile Arg Leu Phe Phe Arg
1               5                   10                  15
Asn Leu Pro Glu Thr Tyr Thr Arg Ile His Ser Leu Leu Glu Thr Gly
            20                  25                  30
Asp Arg Arg Ile Ser Thr Thr Asp Phe Lys Asn Leu Lys Asp Ile Phe
```

```
        35                  40                  45
Val Phe Tyr Lys Val Leu Cys Ile Leu Ser Asn Arg Leu Gln Thr Asn
    50                  55                  60
Gly Leu Asn
65
```

<210> 38538
<211> 419
<212> PRT
<213> A.fumigatus

<400> 38538

```
Ile Glu Leu Ile Cys Ser Leu Leu Ser Asn Arg Ile Leu Ser Ser Cys
1               5                  10                  15
Ile Asp Arg Leu Arg Ser Leu Trp Arg Ile Ser Trp Arg Arg Ser Arg
            20                  25                  30
Ser Ile Phe Thr Thr His Leu Ser Asn Arg Leu Pro Pro Arg Tyr Cys
        35                  40                  45
Asp Ser Ser Leu Arg Ala Thr Met Leu Thr Phe Arg Lys Ser Leu Ile
    50                  55                  60
Val Ala Val Val Leu Ile Thr Phe Val Val Leu Leu Arg Ser Ala His
65                  70                  75                  80
Ser Ser Pro Ser Ala Glu Pro Ala Val Leu Asn Thr Glu Thr Thr Ala
                85                  90                  95
His Asp Thr Ser Gln Ala Ala Asp Glu His Leu Thr Asp Gln Lys Gln
            100                 105                 110
Asp Ile Gln Gln Gln Pro Leu Lys Pro Pro Pro Thr Ala Pro Leu Arg
        115                 120                 125
Glu Arg Leu Arg Tyr Gln Phe Pro Tyr Asp Leu Glu Asn Arg Phe Pro
    130                 135                 140
Ala Tyr Ile Trp Gln Thr Trp Lys Tyr Thr Pro Ala Ser Met Trp Phe
145                 150                 155                 160
Ser Glu Asp Leu Arg Pro Ala Glu Ala Ser Trp Thr Glu Leu His Pro
                165                 170                 175
Gly Phe Val His Glu Val Ile Pro Asp Asp Thr Gln Arg His Leu Val
            180                 185                 190
Lys Tyr Leu Tyr Gly Ser Val Pro Glu Val Phe Glu Ala Tyr Asp Ser
        195                 200                 205
Met Pro Leu Pro Val Leu Lys Ala Asp Phe Phe Arg Tyr Leu Ile Leu
    210                 215                 220
Leu Ala Arg Gly Gly Ile Tyr Ser Asp Ile Asp Thr Tyr Ala Leu Lys
225                 230                 235                 240
Pro Ala Val Asp Trp Leu Pro Gly Glu Leu Asp Leu Ala Thr Val Gly
                245                 250                 255
Phe Val Ile Gly Ile Glu Ala Asp Pro Asp Arg Pro Asp Trp His Asp
            260                 265                 270
Trp Tyr Ser Arg Arg Ile Gln Phe Cys Gln Trp Thr Ile Gln Ala Lys
        275                 280                 285
Pro Gly His Pro Ile Leu Arg Asp Ile Val Ala Tyr Ile Thr Glu Glu
    290                 295                 300
Ala Leu Arg Met Lys Lys Lys Gly Ile Leu Lys Glu Gly Lys Met Asp
305                 310                 315                 320
Lys Thr Ile Val Glu Phe Thr Gly Pro Ala Ala Trp Thr Asp Ala Val
                325                 330                 335
Phe Arg Tyr Phe Asn Asn Pro Glu Tyr Phe Ser Ile Glu Pro Gly Ser
            340                 345                 350
```

```
Thr His Asn Val Thr Tyr Glu Asp Phe Thr Asn Gln Arg Gly Tyr Lys
        355                 360                 365
Lys Val Gly Asp Val Val Val Leu Pro Ile Thr Ser Phe Ser Pro Gly
    370                 375                 380
Val Gly Gln Met Gly Ala Gly Asp Leu Asp Asp Pro Met Ala Phe Val
385                 390                 395                 400
Lys His Asp Phe Ser Gly Thr Phe Phe Phe Phe Phe Phe Phe Phe Phe
                405                 410                 415
Phe Phe Phe
```

<210> 38539
<211> 339
<212> PRT
<213> A.fumigatus

<400> 38539

```
Asp Lys Arg Tyr Glu Val Thr Ser Lys Thr Thr Phe Glu Glu Phe Gln
1               5                   10                  15
Ser Ile Met Leu Ser Asp Arg Arg Thr Ala Asn Leu Asp Ser Asp Ile
            20                  25                  30
Leu Gln Leu Leu Phe Asp Arg Ile Lys Glu Lys Ala Ile Arg Arg Ser
        35                  40                  45
Glu Glu Glu Lys His Ala Ala Asp Arg His Gln Arg Arg Ala Ile Asp
    50                  55                  60
Ala Leu Arg Ser Arg Met Lys Arg Leu Glu Pro Pro Ile Arg Pro Ser
65                  70                  75                  80
Asp Thr Trp Asp Gln Val Arg Pro Arg Ile Glu Lys Leu Glu Glu Tyr
                85                  90                  95
Lys Ala Leu Glu Ser Asp Glu Leu Arg Gln Val Ala Phe Asp Lys Phe
            100                 105                 110
Met Arg Arg Leu Lys Glu Asn Glu Glu Asp Val Asp Arg Glu Arg Glu
        115                 120                 125
Arg Asp Arg Asp Arg His Arg Gly Ser Arg Arg Glu His Tyr Asp Arg
    130                 135                 140
Asp His Arg Arg Gly Glu Arg Arg Gly Pro Pro Ser Arg Leu Ser Arg
145                 150                 155                 160
Thr Pro Glu Pro Asp Ala Tyr Glu Ala Asp Arg Arg Lys Ala Gln Ala
                165                 170                 175
Asp Arg Glu Arg Ser Tyr Arg Lys Val Ser Gly Leu Ser Pro Ile Arg
            180                 185                 190
Glu Lys Arg Asp Asp Arg Asp Arg Asp Arg Asp Arg Glu Arg Glu Lys
        195                 200                 205
Asp Arg Asp Arg Tyr Arg Asp Arg Asp Trp Asp Arg Glu Arg Ser Ser
    210                 215                 220
Arg Ser Leu Ser His Tyr Asp Arg Glu Arg Arg Asp Arg Glu Glu Glu
225                 230                 235                 240
Arg Glu Arg Leu Tyr Arg Thr Arg Gly Asp Pro Arg Gly Ser Arg Asp
                245                 250                 255
Glu Leu Asp Tyr Gly Ala Asp Thr Arg Ser Thr Val Ser Asn Asp Arg
            260                 265                 270
Arg Arg Arg Arg Asp Ser Asp Thr Glu Ser Val Ala Ser Arg Ser Ala
        275                 280                 285
Lys Arg Tyr Arg Arg Glu Ser Arg Glu Arg Asp Arg Ser Arg Ala Ser
    290                 295                 300
Lys Arg Asp Arg Glu Arg Gln Glu Pro Thr Pro Ala Ala Glu Glu Asp
```

305 310 315 320
Lys Arg Glu Glu Lys Ala Val His Ser Gly Ser Glu Glu Gly Glu Ile
325 330 335
Glu Glu Asp

<210> 38540
<211> 119
<212> PRT
<213> A.fumigatus

<400> 38540
Ala Arg Glu Thr Asn Gly Arg Ala Ser Ser Ile Val Tyr Ile Phe Arg
1 5 10 15
Ala Ser Gly Ser Ser Ser Ile Val Glu Gln Leu Ser Phe Leu Gly Asn
20 25 30
Ile Cys Ser Ser Ser Ile Met Asn Pro Met Thr Gly Pro Ala Ala Ala
35 40 45
Ala Pro Leu Trp Gln Glu Ala Arg Asn Ala Asp Gly Arg Val Tyr Tyr
50 55 60
Tyr Asn Val Gln Thr Lys Ala Thr Gln Trp Gln Lys Pro Val Glu Leu
65 70 75 80
Met Thr Pro Val Glu Val Cys Cys Tyr Tyr Glu Ser Arg Cys Thr His
85 90 95
Val Cys Ala Asn Thr Phe Leu Thr Phe Ala Ala Ser Ser Ser Gln Ser
100 105 110
Ala Met Glu Arg Ile Tyr Cys
115

<210> 38541
<211> 371
<212> PRT
<213> A.fumigatus

<400> 38541
Pro Val Phe Ala Arg Arg Ala Pro Thr Phe Val Ala Gly Gly Val Ser
1 5 10 15
Ser Phe Pro Ser Leu Pro Gln Gln Arg Asp Arg Asp Asp Tyr Asp Arg
20 25 30
Gly Tyr Gly Asp Arg Arg Gly Gly Tyr Gly Ser Met Asp Val Asn Gly
35 40 45
Ile Ser Ala Ala Pro Ala Leu Gly Thr Ala Gln Ala Glu Pro Glu Tyr
50 55 60
Asn Ser Leu Glu Glu Ala Glu Asn Ala Phe Met Lys Met Leu Lys Arg
65 70 75 80
His Asn Val Gln Ala Asp Trp Ser Trp Glu Gln Thr Met Arg Ala Thr
85 90 95
Ile Lys Asp Pro Gln Tyr Arg Ala Leu Lys Asp Pro Arg Asp Arg Lys
100 105 110
Ala Ala Phe Glu Lys Tyr Ala Ala Glu Leu Arg Met Gln Glu Lys Asp
115 120 125
Arg Ala Lys Glu Arg Phe Ala Lys Leu Arg Thr Asp Phe Asn Thr Met
130 135 140
Leu Lys Ser His Pro Glu Ile Lys His Tyr Ser Arg Trp Lys Thr Ile
145 150 155 160
Arg Pro Ile Ile Glu Gly Glu Thr Ile Phe Arg Ser Thr Asn Asp Glu

```
                165                 170                 175
Asn Glu Arg Arg Gln Leu Phe Glu Glu Tyr Val Leu Glu Leu Lys Lys
            180                 185                 190
Glu His Val Glu Gln Glu Ala Ala Arg Arg Arg Ala Ala Leu Asp Glu
        195                 200                 205
Leu Val Asn Ile Leu Asn Ser Leu Asn Leu Glu Pro Tyr Thr Arg Trp
    210                 215                 220
Ser Glu Ala Gln Ala Ile Ile Gln Ser Asn Asp Lys Ile Gln Ser Asp
225                 230                 235                 240
Asp Lys Phe Lys Ser Leu Ser Lys Ser Asp Ile Leu Thr Ala Phe Glu
                245                 250                 255
Asn His Ile Lys Ser Leu Glu Arg Ala Phe Asn Asp Ala Arg Gln Gln
            260                 265                 270
Gln Lys Ala Ala Lys Ala Arg Lys Glu Arg His Ala Arg Glu Asn Phe
        275                 280                 285
Ile Glu Leu Leu Lys Glu Leu Lys Ala Gln Gly Lys Ile Lys Ala Gly
    290                 295                 300
Ser Lys Trp Met Asn Ile Tyr Pro Leu Ile His Glu Asp Pro Arg Tyr
305                 310                 315                 320
Phe Ala Ile Leu Gly Asn Ser Gly Ser Thr Pro Leu Asp Leu Phe Trp
                325                 330                 335
Asp Met Val Glu Glu Glu Glu Arg Ser Leu Arg Gly Pro Arg Asn Asp
            340                 345                 350
Val Leu Asp Val Leu Asp Val Arg Ser Leu Thr Pro Cys Phe Leu Glu
        355                 360                 365
Gln Leu His
    370
```

<210> 38542
<211> 77
<212> PRT
<213> A.fumigatus

<400> 38542

```
Leu Leu Ser Arg Phe Val Ala Ile Thr Ser Leu Ala Val Leu Met Ser
1               5                   10                  15
Val Leu Ile Leu Ser Ser Arg Leu Gln Arg Ala Leu Ala Asn Gln Pro
            20                  25                  30
Trp Lys Glu Tyr Thr Ala Glu Gly Gly Arg Lys Tyr Trp Tyr Asn Thr
        35                  40                  45
Glu Thr Lys Gln Ser Thr Trp Glu Met Pro Asp Val Tyr Lys Asn Ala
    50                  55                  60
Leu Ala Gln Val Gln Thr Pro Gln Ser Ala Pro Val Ala
65                  70                  75
```

<210> 38543
<211> 76
<212> PRT
<213> A.fumigatus

<400> 38543

```
Ser Ser Pro Ile Gly Phe Pro Cys Leu Val Tyr Thr Val Gly Asp His
1               5                   10                  15
Leu Thr Pro Gly Pro Thr Cys Arg Leu Ile Ser Leu Thr Asp Phe Gln
            20                  25                  30
Asn Asp Gln Thr Ser Thr Ala Tyr Asn Ser Thr Asn Ile Thr Leu Ile
```

```
        35                  40                  45
Lys Ala Ala Leu Glu Val Ile Lys Leu Leu Glu Leu Gly Lys Leu Ile
    50                  55                  60
Asn Tyr Thr Phe Phe Ala Asn Lys Tyr Gly Val Ser
65                  70                  75
```

<210> 38544
<211> 101
<212> PRT
<213> A.fumigatus

<400> 38544

```
Ile Gly Arg Ser Leu Val Trp Ser Arg Glu Lys Ser Tyr Ser Val Thr
1               5                   10                  15
Ala Arg Gln Asn Arg Phe His Ile Arg Arg Cys Leu Ala Gly Asn Asp
            20                  25                  30
Gln Gly Arg Leu Ser Asn Gln Ser Pro Ser Ala Met Ala Asn Glu Glu
        35                  40                  45
Asp Gly Ser Ser Thr Leu Leu Ser Lys Lys Ser Ala Tyr Asn Ser Val
    50                  55                  60
Tyr Lys His Asn Met Thr His Ser Ala Lys Ser Pro Leu Val Glu Leu
65                  70                  75                  80
Ile Gln Gln Ile Met Ser Gln Arg Gly Gln Val Val Thr Asn Ala Gly
                85                  90                  95
Leu Ser Met Ile Ile
            100
```

<210> 38545
<211> 85
<212> PRT
<213> A.fumigatus

<400> 38545

```
Asp Val Thr Cys Arg Ser Leu Pro His Glu Ser Asp Asp Gly Arg Tyr
1               5                   10                  15
Met Tyr Val Leu Leu Asp Gly Ser Leu Leu Asn Gly Phe Ile Leu Arg
            20                  25                  30
Leu Phe Phe Gln Val Asp Ile Gly His Ser Thr Ala Thr Thr Arg Gly
        35                  40                  45
Gly Ser Glu Leu Trp Arg Arg Ile Ser Pro Lys Ala Thr Ser Glu Val
    50                  55                  60
Asp Ser Leu Leu Gly Ile Leu Ser Ile Leu Gln Met Ser Ser Lys Pro
65                  70                  75                  80
Lys Met Pro Leu Asn
                85
```

<210> 38546
<211> 161
<212> PRT
<213> A.fumigatus

<400> 38546

```
Ser Trp Asn Ser Met Met Gly Ala Val Glu Val Ala Ser Ser Pro Val
1               5                   10                  15
Phe Pro Ser Leu Asp Pro Ile Val Val Asp Asp Glu Met Glu Asn Pro
            20                  25                  30
```

```
Tyr Gln Asp Thr Asp Leu Asn Phe Leu Asp Ser Thr Arg Leu Gln Met
        35                  40                  45
Asn Glu Ala Ala Gly Gln Asp Phe Asp Asp Leu Phe Ala Arg Ser His
    50                  55                  60
Ser Ser His Thr Val Thr Asp Ser Glu Ser Val Cys Leu Ser Pro Ser
65                  70                  75                  80
Glu Leu Ser Ile Lys Arg His Phe Gln Glu His Asp Ala Leu Arg Gln
                85                  90                  95
Pro Lys Ile Val Ala Ser Asp Ser Pro Ala Glu Ser Leu Asp Asn Ser
            100                 105                 110
Ser Pro Ser Ser Ser Ser Asp Ser Pro Arg Asn His Gly Arg Asn Thr
        115                 120                 125
Ser Val Ala Thr Thr Ile Ser Val Leu Ile Ala Thr Lys Pro Pro Tyr
    130                 135                 140
Cys His Leu Leu Pro His Leu Arg Met Gly Ser Pro Arg Thr Ser Ile
145                 150                 155                 160
His
```

<210> 38547
<211> 298
<212> PRT
<213> A.fumigatus

<400> 38547

```
Lys Cys Pro Arg Leu Lys Arg Asn Asn Pro Glu Gly Asn Ile Pro Pro
1               5                   10                  15
Lys Pro Ala Arg Ser Val Val Gly Gly Glu Gln Arg Tyr Leu Cys His
            20                  25                  30
Ala Cys Ile Tyr Ser Leu Tyr Leu Val Leu Thr Cys Lys Leu Cys Lys
        35                  40                  45
Cys Asp Gly Lys Lys Pro Ser Cys Ser Arg Cys Leu Gln Trp Ser Ile
    50                  55                  60
Ser Cys Gln Tyr Ser Ser Thr Glu Asp Gly Arg Arg Pro Ala Ser Lys
65                  70                  75                  80
Ser Tyr Val Asp Leu Leu Arg Gln Arg Ile Gln Phe Leu Glu Asp Phe
                85                  90                  95
Leu Ala Lys Arg Gly Leu Asp Pro Asp Ala Glu Thr Ser Leu Gly Glu
            100                 105                 110
Asp Ser Ala Glu Val Ser Tyr Met Glu Ala Leu Cys Asp Gln Phe Lys
        115                 120                 125
Gly Cys Leu Ala Leu Asp Glu Ser Leu Asn Phe Asp Ala Asp Gly Glu
    130                 135                 140
Met Arg Phe Phe Gly Pro Thr Ser Gly Arg Leu Gln Phe Ala Ala Gln
145                 150                 155                 160
Gly Val Ser Pro Glu Lys Asp Ser Asn Ala Arg Val Glu Pro Glu Pro
                165                 170                 175
Leu Ala Ser Thr Ala Tyr Asp Ala Phe Val Pro Thr Glu Leu Glu Thr
            180                 185                 190
His Leu Ile Asp Leu Tyr Phe Ala Trp Glu Gln Pro Trp Tyr Gln Ile
        195                 200                 205
Val Asp Glu Asp Leu Phe Arg Asp Ser Met Ala Asn Arg Gly Arg Tyr
    210                 215                 220
Phe Thr Pro Leu Leu Leu Tyr Ser Ile Leu Ala Met Gly Ser Arg Tyr
225                 230                 235                 240
Ser Asp Arg Ile Lys Thr Arg Thr Asp Ala Asn Asp Pro Asn Thr Ala
```

```
                245                 250                 255
Gly Arg Phe Phe Leu Glu Gln Ala Lys Thr Leu Leu His Arg Glu Met
            260                 265                 270
Glu Arg Pro Ser Leu Thr Thr Ile Gln Ala Leu Arg Leu Ile Gly Met
        275                 280                 285
Phe Asn Ile Val Ser Ser Leu Tyr Thr Arg
    290                 295
```

<210> 38548
<211> 98
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (84)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38548

```
Val Arg Tyr Thr Leu Asp Glu Asp Leu Leu Thr Ile Leu Gln Ala Thr
1               5                   10                  15
Gly Ala Asp Ala Ala Gly Trp Leu His His Gly Met Ala Asn Arg Leu
            20                  25                  30
Asn Leu Asp Met Gly Leu Asn Leu Asp Pro Ala Ala Phe Glu Gly Ala
        35                  40                  45
Val Ser Met Ser Thr Lys Glu Met Gln Leu Arg Arg Gln Ile Tyr Trp
    50                  55                  60
Thr Leu Tyr Cys His Asp Lys Leu Ser Ala Ser Tyr Thr Gly Arg Phe
65                  70                  75                  80
Cys Ser Met Xaa Val Arg Arg Ser Ser Leu Val Leu Leu Asn Thr Thr
                85                  90                  95
Ala His
```

<210> 38549
<211> 199
<212> PRT
<213> A.fumigatus

<400> 38549

```
Gly Ala Arg Gly Thr Ala Ile Ile Asn Val Glu Trp Ser Lys Gln His
1               5                   10                  15
Thr Met Lys Ser Ile Phe Ala Leu Thr Gly Leu Leu Ser Leu Val Leu
            20                  25                  30
Ser Ala Ser Ala Ala Asp Pro Arg Leu Cys Pro Lys Gly Asn Asp Pro
        35                  40                  45
Leu Pro Ala Ser Ala Phe Thr Leu Gln Gln Ser Lys Asp Asn Ser His
    50                  55                  60
Leu Ala Ser Leu Ser His Ile Phe Ser Val Ala Gly Lys Asn Val Ser
65                  70                  75                  80
Ile Ala Arg Val Leu Asp Ser Ala Asn Arg Asp Leu Ala Lys Gly Lys
                85                  90                  95
Pro Pro Val Gly Thr Thr Pro Val Glu Ala Trp Lys Trp Asn Pro Gly
            100                 105                 110
Asp Met Ala Thr Lys Lys Trp Val Pro Gln Gly Ile Thr Gly Ser Ala
        115                 120                 125
```

```
Asp Ala Ser Ala Ser Gly Lys Trp Asp Gly Arg Glu Met Trp Leu Val
    130                 135                 140
Ser Trp His Arg Asp Asp Asp Lys Ser Val Arg Val Ser Phe Val Asp
145                 150                 155                 160
Arg Lys Glu Arg Thr Lys Tyr Pro Ala Met Cys Leu Leu Gly Gly Ala
                165                 170                 175
Pro Leu Ala Gly Arg Thr Asn Phe Ala Cys Arg Gly Pro Val Pro Cys
            180                 185                 190
Arg Gly Gly His Arg Ala Gly
        195
```

<210> 38550
<211> 176
<212> PRT
<213> A.fumigatus

<400> 38550

```
Gln Leu Ala Gln Asp Gly Asn Val Phe Ala Ala Asp Pro Tyr Lys Ser
1               5                   10                  15
Glu Val Ile Ala Phe Ala Thr Lys Gln Gln Leu Thr Pro Asp Phe His
            20                  25                  30
Gln Ile Phe Ile Arg Gly Ile Gly Cys Asn Trp Leu Val Cys Leu Ala
        35                  40                  45
Cys Phe Leu Gly Val Gln Gly Arg Asp Leu Ala Ser Lys Val Val Gly
    50                  55                  60
Ile Trp Phe Pro Thr Phe Ala Phe Val Ser Leu Gly Phe Asp His Val
65                  70                  75                  80
Val Ala Asn Met Thr Phe Ile Pro Leu Ala Ile Trp Leu Gly Ala Pro
                85                  90                  95
Lys Ile Thr Val Ala Leu Tyr Ile Trp Lys Gly Ile Ile Pro Thr Leu
            100                 105                 110
Leu Gly Asn Ile Ile Gly Gly Gly Leu Phe Val Gly Arg Cys Thr Ser
        115                 120                 125
Cys Glu Leu Ala Thr Val Ala Asn Gln Thr Ser Asp Ile Leu Leu Val
    130                 135                 140
His Val Pro Arg Glu Arg Arg Asp Gly His Ser His Gly Asp Ala Pro
145                 150                 155                 160
Val Arg His Asp Asp Ala Ser Phe Thr Gly Tyr Arg Gly His Gly Cys
                165                 170                 175
```

<210> 38551
<211> 351
<212> PRT
<213> A.fumigatus

<400> 38551

```
Glu Arg Glu Ile Ala Gln Leu Arg Lys Thr Leu Glu Glu Glu Arg Leu
1               5                   10                  15
Ala Arg Arg Arg Arg Gln Ser Ile Ser Thr Lys Val Gln Ser Thr Asp
            20                  25                  30
Glu Thr Ala Asn Ser Thr Arg Gln Ser Val Ser Asn Ser Ala Ala Pro
        35                  40                  45
Arg Lys Ser Ser Met Lys Asp Ser Lys Ala Pro Ile Thr Arg Pro Ala
    50                  55                  60
Ser Ala Met Gly Asp Leu Thr Ala Thr Ser Lys Val Ser Met Ala Glu
65                  70                  75                  80
```

```
Ala Asp Ser Asn Leu Ser Val Pro Ile Glu Arg Pro Arg Arg His Ser
                85                  90                  95
Asp His Ser Ile Ile Pro Thr Thr Gln Arg Arg Arg Arg Pro Val Thr
            100                 105                 110
Asp Asp Met Thr Ser Ala Phe Ile Leu Pro Asp Ile Thr Ile Arg His
        115                 120                 125
Ala Glu Leu Ala Ala Glu Asp Pro Ser Arg Leu Pro Gln Ala Ala Gln
    130                 135                 140
Lys Ala Leu Asp Ser Ala Thr Gln His Asp Gly Lys Asn Cys Thr Val
145                 150                 155                 160
Cys Lys Arg Cys Ile Pro Gly Asn Ser Gln Cys Asp His Thr His Glu
                165                 170                 175
Thr Val Lys Ile Pro Lys Pro Val Pro Val Ser Glu Arg Met Pro Glu
            180                 185                 190
His Ser Val Tyr Asn Glu Glu Pro Thr Leu Arg Pro Ala Gln Ser Pro
        195                 200                 205
Gly Ala Ala Leu Ala Thr Val Leu Lys Ala Leu Glu Asp Glu Leu Ser
    210                 215                 220
His Leu Lys Met Gln Leu Val Thr Tyr Gln Gly Ala Tyr Asn Lys Leu
225                 230                 235                 240
Asp Ala Ser Leu Ser Lys Arg Gln Arg Lys Ser Leu Ala Ala Lys Ile
                245                 250                 255
Glu Lys Leu Leu Lys Asp Ile Asp Leu Lys Ala Asp Gln Ile Tyr Ala
            260                 265                 270
Leu Tyr Asp Val Leu Glu Gly Gln Lys Gln Asn Gly His Glu Met Thr
        275                 280                 285
Glu Gln Glu Met Glu Val Thr Leu Gln Ser Ile Gly Ile Asp Thr Ala
    290                 295                 300
Ala Thr Thr Arg Ala Thr Asp Val Thr Ala Thr Thr Asp Lys Ser Ser
305                 310                 315                 320
His Lys Asn Asn Asp Thr Asp Leu Asp Asp Asp Glu Glu Leu Pro Trp
                325                 330                 335
Glu Gly Ile Glu Ser Thr Met Asp Val Thr Gly Arg Ile Gly Asn
            340                 345                 350
```

<210> 38552
<211> 443
<212> PRT
<213> A.fumigatus

<400> 38552

```
Asp Ala Pro Tyr Val Trp Thr Met Ser Gln Glu Asn Thr Arg Arg Ser
1               5                   10                  15
Glu Ala Thr Thr Asn Ser Phe Ala Ser Phe Gly Ser Asp Phe Asp Pro
            20                  25                  30
Glu His Glu Ala Leu Ala Ser Thr Lys His Phe Glu Asn Ser Pro Lys
        35                  40                  45
Leu Pro Glu Met Lys Gly Ser Ala Arg Lys Gln Ile Asn Asn Phe Ala
    50                  55                  60
Asp Glu Glu Pro Asp Tyr Ala Ile Asp Thr Ser Ala Leu Glu Arg Ala
65                  70                  75                  80
Phe Pro Glu Leu Ser Pro Val Gly Thr Ser Glu Asp Asp Thr Glu Glu
                85                  90                  95
Ser Ile Ser Val Glu Ala Gly Arg Gly Ile Asn Lys Pro Thr Arg Arg
            100                 105                 110
Leu Asp Asp Ser Arg Asn Ser Leu Met Ser Ile Glu Asn Ser Val Arg
```

```
        115                 120                 125
Ser Ser Ser Pro Ala Val Arg Leu Asp Tyr Pro Thr Ser His Thr Pro
    130                 135                 140
Gln Lys Ser Ala Met Arg Val Ser Ser Arg Arg Thr Ala Ser Glu Ser
145                 150                 155                 160
Leu Arg Arg Asp Ala Gln Leu Arg Gln Ala Ser Leu Ala His Lys Glu
                165                 170                 175
Asn Arg Asp Pro Leu Ser Ser Lys Thr Ala Arg Lys Asp Gln Arg Arg
            180                 185                 190
Thr Leu Ser Glu Met His Ala Lys Val Arg Asp Ser Tyr Asp Gly Ser
        195                 200                 205
Phe Ile Ala Asp Glu Arg Pro Gln Pro Val Ala Thr Ser Thr Arg Ala
    210                 215                 220
Thr Arg Phe Gly Asn Val Asn Leu Ser His Gln Ile Ala Asp Ala Val
225                 230                 235                 240
Glu Arg Ala Ser Gln Glu Ala Tyr Ala Lys Glu Met Arg Arg Gly Lys
                245                 250                 255
Leu Ser Ser Asn Leu Arg Asn Gly Ser Gly Asn Gly Ala Gly Asp Thr
            260                 265                 270
Gly Thr Met Gln Ser Phe Leu Leu Pro Asp Leu Pro Asn Leu Ser Glu
        275                 280                 285
Leu Val Ser Gly Val Tyr Glu Asp Gly Thr Pro Val Tyr Thr Arg Gln
    290                 295                 300
Ser Arg Ala Arg Ala Thr Arg Phe Val Ser Pro Pro Asn Asp Gly Ala
305                 310                 315                 320
Asp Val Ser Met Thr Arg Glu His Ile Pro Leu Asp Ala Ile Pro Ile
                325                 330                 335
Pro Glu Asp Glu Lys Ala Leu Phe Val Ser Leu Arg Leu Leu Gln Asp
            340                 345                 350
Lys Val Ser Glu Leu Glu Arg Ala Lys Ser Asp Ala Glu Arg Lys Ile
        355                 360                 365
Asp Glu Met Arg Gln Glu Asn Ala Ala Leu Lys Ala Gly Arg Ser Asn
    370                 375                 380
Arg Lys Asp Lys His Gly Arg Ser Arg Val Tyr Glu Ser Glu Asp Asp
385                 390                 395                 400
Asp His Arg Arg Asp Ala Gly Ser His Tyr Gln Ser Gln Phe Pro Phe
                405                 410                 415
Ala Val Arg Glu Pro His Ala Asn His Cys Ser Arg Ala Arg Ser Phe
            420                 425                 430
Glu Ser Ser Phe Ala Lys Pro Val Gly Tyr Gly
        435                 440
```

<210> 38553
<211> 151
<212> PRT
<213> A.fumigatus

<400> 38553

```
Arg Arg Pro Cys Arg Ile Leu Pro Arg His Arg Gln Pro His Arg His
1               5                   10                  15
Gln Asp Arg Pro Gln His Asp Pro Arg Arg Ala Arg Pro Pro Ser Arg
            20                  25                  30
His Arg Gln Pro Gln Pro Arg Asn Arg Gln Gly Asn Pro Asp Leu Pro
        35                  40                  45
Leu Arg Arg Gln Gln Asp Gln Pro Ala Pro Ser Arg Pro His Ser Arg
    50                  55                  60
```

```
Arg Pro Thr Leu Arg Pro Pro Pro Arg Leu Ala Met Arg Pro His Ala
65                  70                  75                  80
Trp Gln His Ala Asp Tyr Pro Phe Arg Arg Glu Asn Thr Thr Leu Gln
                85                  90                  95
Arg His Pro Leu Arg Ala Ala Ala Gly Ala Arg Asp Pro Pro Arg Arg
            100                 105                 110
Ala Val Leu Pro Arg Arg Arg Ala Pro Arg Thr His Arg Arg Gly Arg
        115                 120                 125
His Gly Val Cys Arg Arg Cys Gly Arg Ala Asp Arg Gly Gly Ala Glu
    130                 135                 140
Arg Ala Val His Asp Val Leu
145                 150
```

<210> 38554
<211> 204
<212> PRT
<213> A.fumigatus

<400> 38554

```
Gln Ala Thr Lys Ala Pro Pro Ala Gln Phe Phe Trp Met Gly Asp Arg
1               5                   10                  15
Arg Arg Gln Leu Asp Gly Ala His Val Glu Phe Phe Arg Gly Ile Ala
            20                  25                  30
Asn Pro Ile Gly Ile Lys Ile Gly Pro Ser Met Thr Pro Asp Glu Leu
        35                  40                  45
Val Arg Leu Leu Asp Ile Val Asn Pro Asn Arg Glu Ile Gly Lys Val
    50                  55                  60
Thr Leu Ile Ser Arg Tyr Gly Ala Ser Lys Ile Ser Gln His Leu Pro
65                  70                  75                  80
Ala His Ile Ala Ala Val Gln Arg Ser Gly His Leu Pro Val Trp Gln
                85                  90                  95
Cys Asp Pro Met His Gly Asn Thr Gln Thr Thr Pro Ser Gly Val Lys
            100                 105                 110
Thr Arg His Phe Ser Asp Ile Leu Ser Glu Leu Arg Gln Ala Leu Glu
        115                 120                 125
Ile His Arg Ala Ala Gln Ser Phe Leu Gly Gly Val His Leu Glu Leu
    130                 135                 140
Thr Gly Glu Ala Val Thr Glu Cys Val Gly Gly Ala Gly Gly Leu Thr
145                 150                 155                 160
Glu Glu Gly Leu Ser Glu Arg Tyr Thr Thr Phe Cys Asp Pro Arg Leu
                165                 170                 175
Asn Glu Lys Gln Ala Leu Glu Leu Ala Phe Leu Val Ala Gly Phe Tyr
            180                 185                 190
Arg Asp Met Asp Asp Val Glu Gly Met Asn Ser Ile
        195                 200
```

<210> 38555
<211> 70
<212> PRT
<213> A.fumigatus

<400> 38555

```
Arg Ser Tyr Leu Cys Ser Phe Lys Tyr Ile Tyr Ala Asn Tyr Phe Ile
1               5                   10                  15
Phe Ile Lys Tyr Ser Ile Asn Ile Leu Leu Tyr Ile Asp Asn Ile Leu
            20                  25                  30
```

```
Ile Leu Ser Asn Phe Asn Asn Leu Ile Asn Asn Phe Leu Lys Gln Leu
        35                  40                  45
Gly Lys Leu Phe Lys Tyr Thr Asn Asn Ser Lys Val Ser Val Tyr Leu
    50                  55                  60
Gly Ile Asn Ile Leu Tyr
65                  70
```

<210> 38556
<211> 62
<212> PRT
<213> A.fumigatus

<400> 38556

```
Leu Ile Leu Gly Thr Tyr Leu Asp Ile Thr Phe Thr Ile Ser Lys Leu
1               5                   10                  15
Thr Tyr Phe Thr Arg Asn Leu Ser Pro Asn Tyr Phe Ile Ile Val Lys
            20                  25                  30
Tyr Ile Phe Tyr Tyr Leu Val Gly Met Leu Leu Leu Leu Leu Phe Tyr
        35                  40                  45
Pro Ser Ile Leu Ser Asn Leu Asn Ser Phe Ile Asn Thr Asn
    50                  55                  60
```

<210> 38557
<211> 377
<212> PRT
<213> A.fumigatus

<400> 38557

```
Leu Ile Leu Thr Met Ser Asn Val Asp Ile Thr Asn Asp Gly Phe Ile
1               5                   10                  15
Gly Leu Asp Tyr Asp Ser Arg Ser Tyr Ile Gln Ala Gln Ser Trp Pro
            20                  25                  30
Val Ala Val Asp His Gln Ser Ser Gln Arg Thr Glu Gly Ser Arg Asp
        35                  40                  45
Ile Ser Ser Gly His Ala Tyr Glu Gln Ser Val Ala Gln Asp Pro Asn
    50                  55                  60
Leu Met Val Asp Trp His Phe Gln Gln Leu Gln Pro His Leu Gln Tyr
65                  70                  75                  80
Thr Gln Glu Asp His Ser Ser Ala Gln Gln Tyr Thr Thr Ser Ser Tyr
                85                  90                  95
Gly Met Pro Ile His Ser Ser Pro Val Asp Val Met Ala Pro Pro Gln
            100                 105                 110
Gly Gln Met Ser Ser Gly Leu Leu Glu Ser Ser Tyr Met Pro Leu Pro
        115                 120                 125
Ala Pro Val Asp Met Val Pro Phe Gly Tyr Gln Asp Leu Gln Thr Glu
    130                 135                 140
Leu Met Ser Phe Pro Asp Gly Leu Pro Asp Leu Ser Ser Tyr Ala Ala
145                 150                 155                 160
Pro Arg Asn Leu Ile Gly Ser Ser Ser Pro Thr Asp Thr Tyr Leu Glu
                165                 170                 175
Val Arg Ser Leu Ser Ser Ser Asp Asn Gly Trp Ser Ala Ile Glu Pro
            180                 185                 190
Arg His Ser His Glu Phe Met Phe Pro Asp Gln Gly Ile Phe Ile Asn
        195                 200                 205
Pro Thr Gln Thr Leu His Asp Arg Ser Leu Ser Glu Ser Ser Tyr Ser
    210                 215                 220
```

```
Thr Ser Tyr Gly Ser Phe Val Asp Ile Ser Asn Pro Ile Asn Ser Pro
225                 230                 235                 240
Thr Ser Asp Leu Asn Phe Glu Ser Ala Phe Ser Met Pro Arg Arg Val
                245                 250                 255
Ser Tyr Asp His Thr Ser Arg Gly Ser Arg Ser Pro Thr Ala Val Ser
            260                 265                 270
Pro Val Ala Ile Val Arg Pro Ile Pro Val Pro Ser Lys Lys Ser Thr
        275                 280                 285
Ser Pro Thr Arg Ser Ala Gly Ser Gln Ala Ser Ser Ser Ser Pro Pro
    290                 295                 300
Ser Arg Lys Pro Ser Arg Lys Ser Pro Ile Ala Ala Lys Thr Ala Glu
305                 310                 315                 320
Thr Lys Ile Arg Lys Gln Ser Gln Ala Gly Lys Pro Glu Gly Glu Lys
                325                 330                 335
Arg Val Gly Lys Arg Lys Gly Pro Leu Lys Pro Asp Gln Arg Lys Gln
            340                 345                 350
Ala Ser Glu Ile Arg Lys Leu Arg Ala Cys Leu Arg Cys Lys Phe Leu
        355                 360                 365
Lys Lys Thr Val Ser Ser Ser Asp Pro
    370                 375
```

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<210> 38558
<211> 82
<212> PRT
<213> A.fumigatus

```
<400> 38558
Asn Ser Val Val Ser Leu Arg Leu Gly Ile Gly Val Val Val Val Ile
1               5                   10                  15
Thr Tyr Ile Met Ala Leu Met Ile Cys Ser Cys Leu Val Ile Ile Tyr
            20                  25                  30
Tyr Asn Thr Ser Asn Phe Thr Leu Ser Ser Leu Ile Tyr Tyr Phe Asn
        35                  40                  45
Ile Ile Thr Ser Leu Thr Phe Ala Cys Ile Ala Tyr Leu Tyr Phe Tyr
    50                  55                  60
Leu Thr Phe Ile Thr Ser Ser Leu Tyr Lys Glu Leu Leu Leu Tyr Ile
65                  70                  75                  80
Ile Ser
```

<210> 38559
<211> 295
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (166),(167),(170)
<223> Identity of amino acid sequences at the above locations are unknown.

```
<400> 38559
Leu Thr Gly Gln Pro Ser Gln Cys Asp Lys Gly Glu Pro Cys Ala Gly
1               5                   10                  15
Cys Gln Pro Ser His Ala Arg Leu Trp Gln Val Pro Cys Thr Arg Ile
            20                  25                  30
Asp Ile Lys Glu Ile Gly Tyr Phe Met Lys Asp Trp Lys Ala Asp Tyr
```

```
        35                  40                  45
Glu Arg His Ile Thr Leu Gly Phe Ser Val Gly Asn Ile Lys Gly Phe
    50                  55                  60
Ser Glu His Glu Arg Thr Leu Phe Ile Thr His Gly Tyr Gly Gln Ile
65                  70                  75                  80
Leu Pro Ile Asn Ala Arg Glu Val Tyr Val Arg Asp Asp Gln Cys Phe
                85                  90                  95
Ser Val Asp Trp Val Glu Ser Met His Arg Glu Pro Thr Gln Tyr Glu
            100                 105                 110
Val Glu Thr Ala Lys Leu Ser Ala Gly Met Glu Gly Ile Ser His Ala
        115                 120                 125
Met Leu Ser Asp Tyr Leu Asp Arg His Ile Asp Gly Asn Gly Thr Phe
    130                 135                 140
Glu Lys Phe Val Asp Asp Tyr Phe Glu Gly Thr Pro Phe Leu Thr Gln
145                 150                 155                 160
Met Leu Lys Thr Ala Xaa Xaa Tyr Tyr Xaa Arg Thr Lys Leu Pro Val
                165                 170                 175
Ile Arg Lys Ala Leu Glu Leu Ile Ile Ala Tyr Thr Leu Thr Leu His
            180                 185                 190
Val Thr Met Val Glu Gly Ile Gly Glu Glu Asp Gly Phe Leu Gly Lys
        195                 200                 205
Ile Glu Asp Pro Ser Ser Lys Phe Lys Gly Lys Ile Met Ala Pro Val
    210                 215                 220
Met Ile Asn Phe Gln Val Lys Cys Ala Met Ala Asn Met Trp Arg Glu
225                 230                 235                 240
Leu Gln Lys Asp Val Leu Glu Glu Leu Ser Ser Leu Tyr Ser Ser Val
                245                 250                 255
Tyr Ser Gly Glu Lys Leu Lys Asn Trp Pro Thr Ile Phe Ile Leu Ala
            260                 265                 270
Cys Ile Leu Leu Ala Val Trp Glu Glu Met Gln Phe Asp Cys His Tyr
        275                 280                 285
Arg Thr Pro Val Ser Gly Asn
    290                 295

<210> 38560
<211> 83
<212> PRT
<213> A.fumigatus

<400> 38560
Lys Val Glu Ile Leu Thr Ser Arg Lys Asp Pro Ala Ala Val Glu Lys
1               5                   10                  15
Phe Cys Asn Asp Met Glu Asn Ile Pro Val Gly Val Ile Val Gly Leu
            20                  25                  30
Phe Gln Ala Ile Ser Gln Lys Leu Pro Ala Phe Thr Asp Trp Glu Thr
        35                  40                  45
Gln Lys His His His Leu Leu Phe Ser Asn Pro Asp Val Cys Asn Thr
    50                  55                  60
Met Thr Glu Val Arg Glu His Val Arg Gln Tyr Gly Lys Arg Pro Ser
65                  70                  75                  80
Val Ser Pro


<210> 38561
<211> 387
<212> PRT
```

<213> A.fumigatus

<400> 38561

```
Ala Phe Ala Met Thr Val Lys Val Ser Asn Pro Ser Ile Arg Trp Lys
1               5                  10                  15
Lys Asp Pro Thr Thr Asp Ser Leu Asp Leu Tyr Ser Leu Ala Leu Thr
            20                  25                  30
Ala Val Ser Ser Leu Leu Arg Lys Tyr Ala Ile Asp Pro Asn Thr Ile
        35                  40                  45
Gly Arg Leu Glu Val Gly Thr Glu Thr Leu Leu Asp Lys Ala Lys Ser
    50                  55                  60
Cys Lys Thr Val Leu Met Gln Leu Phe Gly Asp Asn Thr Asp Ile Glu
65                  70                  75                  80
Gly Val Asp Thr Tyr Asn Ala Cys Tyr Gly Gly Thr Asn Ala Leu Phe
                85                  90                  95
Asn Ala Val Asn Trp Ile Glu Ser Ser Ser Trp Asp Gly Arg Asp Ala
            100                 105                 110
Ile Val Val Ala Gly Asp Ile Ala Leu Tyr Glu Thr Pro Ala Ala Arg
        115                 120                 125
Pro Thr Gly Gly Ala Gly Cys Val Ala Met Leu Ile Gly Pro Asp Ala
    130                 135                 140
Pro Leu Val Leu Glu Pro Val Arg Gly Ser Cys Met Lys His Val Tyr
145                 150                 155                 160
Asp Phe Tyr Lys Ala Tyr Phe Lys Ser Glu Tyr Pro Leu Val Asp Gly
                165                 170                 175
Gln Phe Ser Asn Thr Cys Tyr Leu Gly Ala Leu Asp Ala Cys Tyr Gln
            180                 185                 190
Arg Tyr Gln Ala Lys Gln Arg Ala Arg Gln Ala Ala Lys Thr Asn Gly
        195                 200                 205
Thr Ala Ile Ser Asn Gly His Gln Gly Ser Phe Leu Asp Thr Phe Asp
    210                 215                 220
Tyr Phe Ala Phe His Ala Pro Asn Cys Lys Leu Val Ala Lys Gly Tyr
225                 230                 235                 240
Gly Arg Leu Leu Phe Asn Asp Phe Lys Leu Glu Ser Gly Ser Phe Asp
                245                 250                 255
Glu Val Pro Ala Gln Val Arg Glu Ala Asp Phe Ala Ala Ser Leu Thr
            260                 265                 270
Asp Lys Ala Leu Glu Lys Leu Cys Val Ser Leu Thr Lys Glu Arg Phe
        275                 280                 285
Val Gln Arg Val Glu Pro Ser Leu Thr Ala Pro Thr Asn Cys Gly Asn
    290                 295                 300
Met Tyr Thr Ala Ser Val Tyr Ala Gly Leu Ile Ser Leu Ile Ser Asn
305                 310                 315                 320
Val Pro Ser Asp Arg Leu Gln Asp Lys Arg Ile Gly Met Phe Ser Tyr
                325                 330                 335
Gly Ser Gly Leu Ala Ser Thr Leu Phe Ser Phe Arg Val Lys Gly Asp
            340                 345                 350
Thr Thr Glu Met Ala Arg Lys Ile Gly Leu Gln Asp Arg Leu Ser Ala
        355                 360                 365
Arg Thr Ala Val Ser Pro Glu Phe Tyr Asp Gln Val Ser Arg Leu Ile
    370                 375                 380
Trp Met Phe
385
```

<210> 38562
<211> 67

<212> PRT
<213> A.fumigatus

<400> 38562
Val Arg Gln Cys Phe Ser Cys Gly Ser Asp Gln Glu Pro Trp Leu Arg
1 5 10 15
Glu Leu Gln Tyr Val Pro Gln Thr Glu Leu Glu Thr Phe Leu Gly Ala
20 25 30
Ser Ala Gly Lys Tyr Thr Ile Gly Leu Gly Gln Gln Asn Met Ser Phe
35 40 45
Cys Asp Asp Arg Glu Gly Glu Gln Pro Ile His Pro Met Glu Glu Gly
50 55 60
Ser Asn Asn
65

<210> 38563
<211> 264
<212> PRT
<213> A.fumigatus

<400> 38563
Ser Ser Ser Ser Thr Cys Phe Leu Leu Phe Ser Ser Leu Tyr Leu Thr
1 5 10 15
Glu Thr Tyr Ser Lys Met Ser Ser Trp Thr Gly Ala Ala Ala Met Ile
20 25 30
Ser Ser Pro Ser Ser Phe His Ala Leu Pro Leu Glu Cys Arg Gln Gln
35 40 45
Ile Leu Cys Asp Leu Pro Asp Ile Gln Ser Leu Lys Ser Ala Ile Leu
50 55 60
Ser His Ser Ala Leu Tyr Ala Ala Phe Tyr Asn Tyr Gln Ser Pro Ile
65 70 75 80
Ile Leu Gln Val Ile Gln Arg Gln Ile Pro Ala Asp Leu Leu Ala Tyr
85 90 95
Ala Val Leu Cys Ser His Ala Arg Asn Ile Glu Pro Trp Thr Arg Thr
100 105 110
Lys Val Leu Asp Ile Leu Asp Leu Tyr Phe Asn Arg Arg Leu Val Glu
115 120 125
Ser Phe Gln Trp Thr Ile Arg Ala Ala Leu Asp Leu Val Lys Phe His
130 135 140
Glu Ser Val Thr Phe Phe Ala Asn Asp Tyr Ile Asp Asn Ala Leu Gly
145 150 155 160
Leu Val Ala Pro Leu Asn Phe Pro Ile His Ala Pro Ser Glu Thr Glu
165 170 175
Trp Cys Arg Val Ala Arg Ala Phe Tyr Leu Gln Glu Thr Ile Gly His
180 185 190
Phe Phe Cys Phe Arg Asn Gly Gly Glu Arg Trp Ile Thr Gly Gly Ile
195 200 205
Arg Tyr Ala Arg Pro Cys Pro Ser Glu Phe His His Arg Glu Lys Phe
210 215 220
Asp Ile Phe Phe Gly Lys His Ala Pro Trp Glu Met Glu Gln Val Gly
225 230 235 240
Ala Val Asn Glu Tyr Leu Tyr Trp Arg Ile Ser Pro Gly Met Ser Ile
245 250 255
Pro Cys Tyr Ile Ser Val Phe Val
260

<210> 38564
<211> 447
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (318)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38564

```
Asp Leu Lys Ile Asp Arg Glu Lys Gly Ala Gln Lys Lys Val Cys Tyr
1               5                  10                  15
Leu Val Glu Tyr Ile Trp Asn Ser Gln Gly Leu Met Leu Thr Tyr Leu
            20                  25                  30
Met Leu Phe Arg Arg Thr Thr Val Met Lys Arg Leu Arg Lys Trp Tyr
        35                  40                  45
Val Ile Leu Ile Ala Thr Ser Arg Ala Ile Ile Arg Val His Ala Asn
    50                  55                  60
Ile Pro His Val Asp Gln Thr Asn Asn Gln Asn Asn Val Thr Asn Thr
65                  70                  75                  80
Thr Gln Leu Ser Lys Gly Asn Lys Arg Leu Leu His Leu Gly Asp Asn
                85                  90                  95
Glu Thr Arg Pro Ser Lys Gln Thr Lys Thr Gly Asp Val Ala Ala Asn
            100                 105                 110
Ser Asp Asn Asp Pro Asp Phe Asp Pro Ser Glu Asp Ser Asp Ser Asp
        115                 120                 125
Gly Gly Asp Ile Ser Pro Ala Gly Asn Ile Gly Arg Ser Pro Thr Ala
    130                 135                 140
Arg Gln Leu Arg Asn Ala Pro Arg Lys Gln Leu Asn Asp Thr Val Val
145                 150                 155                 160
Gly Ser Ala Ser Gly Leu Lys Arg Pro Ser Lys Ser Thr Lys Leu Gln
                165                 170                 175
Phe Thr Gly Gln Pro Gly Ala Arg Asn Ser Phe Ser Thr Thr Pro Ala
            180                 185                 190
Ser Pro Asp Pro Arg Thr Leu Gln Asn Ala Lys Lys Ser Ile Lys Thr
        195                 200                 205
Thr Glu Leu Ala Pro Asn Ser Ser Gln Pro Thr Leu Pro Asn Ser Arg
    210                 215                 220
Thr Pro Asp Asn Ala Ala Asp Thr Asn Lys Ser Asp Ala Thr Ser Glu
225                 230                 235                 240
Ile Val Ser Thr Val Gln Arg Ala Pro Pro Asn Ser Ser Pro Ala Asn
                245                 250                 255
Thr His Arg Ser Leu Pro Asn Gln Glu Ser Thr Thr Asp Glu His Leu
            260                 265                 270
Pro Ser Lys Pro Glu Asp Lys Met Ala Pro Arg Pro His Thr Pro Pro
        275                 280                 285
Phe Pro Ala Thr Thr Gly Phe Thr Glu Ser Gly Asn Asn Gly Tyr Pro
    290                 295                 300
Leu Met Gln His Gly Ala Leu Leu Phe Val Gln Ala Gly Xaa Ala Met
305                 310                 315                 320
Arg Glu Leu Pro Arg Glu Arg Ala Arg Asn Ala Gln Leu Asp Glu Arg
                325                 330                 335
Tyr Glu Asn Leu Val Met Glu Gly Thr Glu Leu Lys Glu Lys Glu Ala
            340                 345                 350
Glu Trp Arg Arg Glu Ile Glu Glu Leu Gln Leu His Asn Lys Asn Leu
```

```
        355                 360                 365
Glu Gly Asp Leu Lys Lys Gln Ile Asp Gln Asn Lys Lys Leu Glu Ala
    370                 375                 380
Gly Leu Lys Glu Leu Ser Glu Lys Lys Asn Gln Gly Ala Leu Asp Ser
385                 390                 395                 400
Ala Asn Gly Ala Thr Asn Ala Lys Cys Glu His Cys Leu Glu His Leu
                405                 410                 415
Thr Arg Ile Asn Ala Leu Thr Glu Glu Asn Lys Lys Met Lys Gln Arg
            420                 425                 430
Cys Lys Val Leu Ala Glu Ala Phe Ala Ala Gly Asn Asp Gln Ala
        435                 440                 445

<210> 38565
<211> 80
<212> PRT
<213> A.fumigatus

<400> 38565
Lys Phe Ser Ser Arg Gln Leu Pro Phe Pro Phe Leu Ser Gln Glu Lys
1               5                   10                  15
His Pro Leu Asp Val Leu Ile Lys Ala His Val Thr Lys Arg Asn Leu
            20                  25                  30
Trp His Arg Arg Pro Leu Thr Cys Phe Ser Phe Ser Leu Glu Arg Glu
        35                  40                  45
Pro Thr Val Asn Met Ser Gly Trp Asn Ser Gly Glu Ala Asp Ala Trp
    50                  55                  60
Asn Thr Asn Glu Ser Ser Gly Trp Asn Asn Asn Asn Gly Thr Gly Thr
65                  70                  75                  80

<210> 38566
<211> 61
<212> PRT
<213> A.fumigatus

<400> 38566
His Ile Lys Arg Leu Tyr Thr His Phe Ser Leu Ala Asp Phe Ala Asp
1               5                   10                  15
Glu Asn Val Asn Pro Ile Ser Ser Ala Pro Ala Gly Asp Phe Arg Glu
            20                  25                  30
Gly Lys Trp Gly Gly Asp Gln Ile Gly Gly Gln Phe Glu Pro Thr Phe
        35                  40                  45
Ser Ala Gly Glu Glu Gly Asn Asp Asn Lys Cys Arg Lys
    50                  55                  60

<210> 38567
<211> 86
<212> PRT
<213> A.fumigatus

<400> 38567
Leu Thr Arg Gly Val Pro Gly His Lys Thr Ile Glu Cys Thr Glu Asn
1               5                   10                  15
Arg Lys Phe Asp Leu Asn Asp Ile Pro Asp Lys Leu Pro Glu Glu Ala
            20                  25                  30
Trp Ala Ala Leu Lys Lys Ala Ser Asn Glu Arg Asp Leu Glu Asp Phe
        35                  40                  45
```

```
Arg Glu Val Gly Asn Gly Ile Asp Leu Tyr Ala Phe Glu Arg Gln Gln
    50                  55                  60
Leu Met Ala Asp Ser Pro Leu Gly Pro Gln Gly Leu Phe Gln Gly Gly
65                  70                  75                  80
Ser Ser Gly His Leu Cys
                85
```

<210> 38568
<211> 129
<212> PRT
<213> A.fumigatus

<400> 38568

```
Cys Glu Glu Gly Lys Ile Pro Phe Ala Gly Met Ala Gly His Ser Leu
1               5                   10                  15
Tyr Pro Arg Leu Met Asp Asp Val Leu Val Gly His Phe Ser Arg Asp
            20                  25                  30
Cys Pro Gln Lys Lys Asp Trp Ser Lys Val Lys Cys Asn Asn Cys Gly
        35                  40                  45
Glu Ser Glu Gln Ser Ala Lys Asp Ala Arg His Lys Gly Gln Met Leu
    50                  55                  60
Thr Asn Val Thr Val Gly His Thr Ile Lys Arg Cys Leu Gln Ala Ala
65                  70                  75                  80
Ser Glu Gly Phe Gly Gln Gly Asn Asn Asp Ile Gln Thr Asn Gly Ala
                85                  90                  95
Gly Asp Asp Trp Asn Thr Asn Thr Ala Ala Pro Leu Ser Asn Glu Asn
            100                 105                 110
Thr Asp Gly Asp Ala Glu Lys Gly Gly Trp Ser Ala Gly Gly Gly Gly
        115                 120                 125
Trp
```

<210> 38569
<211> 105
<212> PRT
<213> A.fumigatus

<400> 38569

```
Arg Asp Cys Ile Leu Ile Leu Ala Trp Gln Ile Leu Leu Thr Arg Met
1               5                   10                  15
Ser Thr Gln Ser Ala Pro Pro Leu Leu Glu Thr Ser Glu Arg Ala Asn
            20                  25                  30
Gly Ala Val Ile Lys Leu Val Val Ser Ser Ser Pro Pro Ser Ala Leu
        35                  40                  45
Ala Lys Arg Ala Met Thr Ile Asn Val Ala Ser Lys Cys Leu Pro Pro
    50                  55                  60
Leu Gly Arg Ser Thr Lys Val Leu Leu Leu Thr Arg Pro Ser Cys Gly
65                  70                  75                  80
Gly Asp Gly His Phe Ala Arg Glu Cys Pro Ala Pro Arg Lys Gly Met
                85                  90                  95
Ala Cys Phe Asn Cys Gly Glu Glu Gly
            100                 105
```

<210> 38570
<211> 90
<212> PRT

<213> A.fumigatus

<400> 38570
Leu Ser Leu Gln Glu Lys Pro Val Glu Asp Ser Ile Ser Leu Ile Asn
1 5 10 15
Leu Gln Gly Lys Leu Asn Cys Lys Tyr Val Val Ala Phe Tyr Phe Ser
20 25 30
Pro Lys Pro Gln Arg Ala Asn Leu Lys Glu Arg Trp Pro Ala Asp Pro
35 40 45
Glu Glu Asn Leu Glu Arg Leu Glu Val Ala Gly Phe Pro Tyr Asp Lys
50 55 60
Gln Ile Pro Lys Cys Gly Asn Cys Gly Gly Lys Gln Lys Leu Ser Leu
65 70 75 80
Gly Gly Tyr Arg Tyr Ser Gln Lys Glu Cys
85 90

<210> 38571
<211> 66
<212> PRT
<213> A.fumigatus

<400> 38571
Ser Ile Ile Glu Met Gly His Thr Ala Arg Gly Cys Lys Glu Glu Arg
1 5 10 15
Ala Leu Val Asp Arg Val Glu Val Lys Cys Val Asn Cys Asn Ala Ser
20 25 30
Gly His Arg Ala Arg Asp Cys Thr Glu Pro Arg Val Asp Arg Phe Ala
35 40 45
Cys Arg Asn Cys Gly Tyr Ile Val Phe Pro Leu Phe Ile Phe Arg Val
50 55 60
Leu Arg
65

<210> 38572
<211> 198
<212> PRT
<213> A.fumigatus

<400> 38572
Leu Val Leu Arg His Phe Gly His Ser Asp Leu Arg Pro Gln Arg Ser
1 5 10 15
Phe Glu Gly Leu Glu Ser Ser Ser Ser Ile Leu Leu Leu Gly Phe Val
20 25 30
His Thr Gly Ser Ser Ala Leu Thr Pro Pro Ala Ile Gly Ile Thr Met
35 40 45
Ala Ser Leu Gly Gly Ser Val Pro Met Phe Arg Ser Leu Ala Pro Arg
50 55 60
Phe Ser Lys Asp Phe Phe Thr Cys Arg Gln Cys Leu Gly Arg Thr Gln
65 70 75 80
Thr Tyr Ala Thr Lys Ser Leu Phe Arg Lys Gln Phe Ala Gly Leu Ser
85 90 95
Phe Gly Gln Lys Ser Ser Asn Ala Thr Pro Lys Ala Phe Ser Val Thr
100 105 110
Ala Thr Lys Phe Phe Ser Pro Ile Leu Arg Arg Ser Val Ala Gly Ser
115 120 125
Ala Val Ala Gly Ala Leu Glu His Gly Ala Ser Gln Ala Lys Ser Ser

```
    130                 135                 140
Phe Pro Lys Val Ser Asp Lys Ile Val Ala Tyr Trp Leu Leu Gly Ser
145                 150                 155                 160
Ala Ala Ser Val Phe Gly Ile Val Val Phe Gly Gly Leu Thr Arg Leu
                165                 170                 175
Thr Glu Ser Gly Tyr Val Leu Pro Tyr Ala Ser Gln Phe Glu Arg His
            180                 185                 190
Leu Leu Thr Leu Ser Glu
        195
```

<210> 38573
<211> 375
<212> PRT
<213> A.fumigatus

<400> 38573

```
Pro Tyr Leu Asn Ser Leu Ser Ile Thr Glu Trp Arg Pro Val Thr Gly
1               5                   10                  15
Ser Leu Pro Pro Met Asn Ala Glu Asp Trp Glu Ser Glu Phe Ala Lys
            20                  25                  30
Tyr Arg Ala Ser Pro Glu Tyr Gln Gln Leu Asn Pro Asn Met Asn Leu
        35                  40                  45
Ser Glu Phe Lys Ser Ile Tyr Tyr Met Glu Trp Ile His Arg Leu Trp
    50                  55                  60
Gly Arg Phe Val Gly Leu Ser Phe Val Leu Pro Ala Ile Tyr Phe Val
65                  70                  75                  80
Ala Lys Lys Lys Val Ser Lys Pro Met Ser Leu Arg Leu Ala Gly Ile
                85                  90                  95
Ala Gly Leu Ile Gly Phe Gln Gly Phe Ile Gly Trp Trp Met Val Lys
            100                 105                 110
Ser Gly Leu Lys Glu Asp Leu Phe Ala Gln Gly Ser His Pro Arg Val
        115                 120                 125
Ser Gln Tyr Arg Leu Thr Ala His Leu Gly Ala Ala Phe Ile Cys Tyr
    130                 135                 140
Thr Ala Met Leu Trp Asn Gly Leu Ala Ile Leu Arg Ser His Arg Leu
145                 150                 155                 160
Leu Ala Asp Pro Glu Ala Gly Ile Lys Leu Leu Asp Ser Leu Arg Asp
                165                 170                 175
Pro Lys Leu Lys Ile Phe Arg Arg Ser Val Ala Gly Leu Ala Leu Leu
            180                 185                 190
Val Phe Ala Pro Ala Met Ser Gly Ala Leu Val Ala Gly Leu Asp Ala
        195                 200                 205
Gly Leu Ile Tyr Asn Glu Phe Pro Phe Met Gly Asn Gly Leu Ala Pro
    210                 215                 220
Pro Lys Ser Glu Leu Leu Asp Glu Arg Tyr Ser Arg His Glu Asp Arg
225                 230                 235                 240
Ser Asp Leu Trp Trp Arg Asn Met Leu Glu Asn Pro Ser Leu Val Gln
                245                 250                 255
Leu Asp His Arg Ile Met Ala Met Thr Thr Phe Thr Ser Ile Met Ala
            260                 265                 270
Leu Trp Ala Tyr Ser Arg Arg Ser Pro Thr Met Lys Arg Leu Leu Pro
        275                 280                 285
Pro Ala Ala Arg Lys Gly Leu His Gly Val Val Ala Phe Ala Trp Val
    290                 295                 300
Gln Val Gly Leu Gly Ile Ser Thr Leu Leu Tyr Leu Val Pro Thr Pro
305                 310                 315                 320
```

```
Leu Ala Ser Ala His Gln Ala Gly Ser Leu Phe Leu Leu Thr Trp Val
                325                 330                 335
Leu Val Leu Gly Ser Arg Ile Trp His Pro Ser Arg Thr Ala Lys Leu
            340                 345                 350
Leu Gln Met Ala Ala Lys Ala Arg Gly Gln Ala Val Arg Asn Ala Thr
        355                 360                 365
Ala Gln Ala Ala His Lys Leu
    370                 375
```

<210> 38574
<211> 70
<212> PRT
<213> A.fumigatus

<400> 38574

```
Lys Val Lys Leu Leu Gln Gly Ile Trp Asp Met Ser Lys Asp Tyr Ser
1               5                   10                  15
Tyr Arg Gly Glu Met Gln Phe Val Ile Ile Tyr Tyr Leu Ala Ser Arg
            20                  25                  30
His Gly Glu Glu Gln Gly Thr Val Ser Ser Val Leu Ala Tyr Phe Leu
        35                  40                  45
Ala Leu Tyr Ser Arg Met Arg Gly Asp Met Asp Lys Lys Ser Lys Ile
    50                  55                  60
Tyr Ser Thr Met Arg Ala
65                  70
```

<210> 38575
<211> 60
<212> PRT
<213> A.fumigatus

<400> 38575

```
Val Trp His Leu Cys Leu Asp Ser Ile Val Val Asn Ser Ser Thr Phe
1               5                   10                  15
Asn Asp Val Asp Ala Lys Ile Leu His Ser Ala Thr Arg Pro Phe Glu
            20                  25                  30
Ser Met Tyr Asp Ile Ile Val Tyr Ala Met Glu Leu Val Lys Phe Cys
        35                  40                  45
Tyr Phe Gln Tyr Val Ala Gly Arg Arg Asn Gln Asp
    50                  55                  60
```

<210> 38576
<211> 271
<212> PRT
<213> A.fumigatus

<400> 38576

```
Phe Leu Ile Cys Thr Gly Leu Pro Val Ile Gln Arg Thr Asn Ile His
1               5                   10                  15
Ser Gln Gln Ser His Glu Leu Trp Phe Gly Ser Ser Gln Phe His Arg
            20                  25                  30
Thr Ser Tyr Gln His Leu Gln Leu Pro Gly Asp Ala Pro Pro His Gly
        35                  40                  45
His Pro Arg Arg Asn Gly His Asn Ala Leu Asn Gly Arg Ala Ala Thr
    50                  55                  60
Thr Pro Gly Asn Ser Leu Ser Ser Leu Gln Leu Glu Glu Arg Ala Leu
```

```
65                  70                  75                  80
His Ala Arg Lys Asn Asn Ile Ala Ser Phe Gly Tyr Ser Trp Ile Lys
                85                  90                  95
Pro Ala Gly Cys Ser Lys Thr Met Leu Gly Met Lys Glu Glu Glu Ala
            100                 105                 110
Glu Arg Glu Glu Ala Leu Ala Ala Ala Ala Ala Glu Met Ala Ala Ala
        115                 120                 125
Ala Ala Ala Ala Ala Asp Pro Gly Leu Asp Glu Phe Gly Asn Pro Met
    130                 135                 140
His Asp Gln Thr Asp Asp Thr Gly Met Glu Arg Asp Leu Asp Asp Asp
145                 150                 155                 160
Ile Pro Asp Ala Asp Ala Asp Gly Leu Val Glu Glu Gly Glu Glu Gly
                165                 170                 175
Leu Glu Glu Asp Glu Asp Val Asp Glu Glu Gly Tyr Met Glu Arg Asp
            180                 185                 190
Leu Asp Asp Asp Ile Pro Glu Ala Phe Ala Asp Asp Asp Asp Glu Arg
        195                 200                 205
Asp Asp Glu Asp Gly Glu Glu Asn Val Glu Asp Thr Val Asp Phe Asp
    210                 215                 220
Asn Gln Ala Asp Leu Asp Asp Glu Ile Pro Ser Ala Ala Asp Asp Tyr
225                 230                 235                 240
Glu Gly Glu Asp Met Ser Asp Val Val Glu Asn Gly Asp Glu Asp Ala
                245                 250                 255
Phe Gly Met Val Ser Pro Arg Ala Gly Arg Ile Arg Ala Cys Val
            260                 265                 270

<210> 38577
<211> 175
<212> PRT
<213> A.fumigatus

<400> 38577
Arg Met Arg Gly Ser Phe Gln Pro Val Val Arg Pro Ser Arg Met His
1               5                   10                  15
Leu Arg Arg Arg Ser Arg Leu Arg Arg Ser Tyr Leu Arg Pro Arg Asn
            20                  25                  30
His Leu Leu Arg Trp Gly Ser His Arg Pro Gly Arg Leu Gly Cys Arg
        35                  40                  45
Ser Pro Gln Tyr Leu Pro His Phe Pro Arg His Leu His His His Val
    50                  55                  60
Arg Arg His His Gln Arg Thr Leu Arg Glu Cys His Arg Leu Asp Pro
65                  70                  75                  80
Ala Pro Cys Ile Pro Pro His Pro Arg Leu Arg Pro Leu Pro Val Leu
                85                  90                  95
Pro Leu Leu Pro Pro Arg Val Arg Pro His Arg His Arg Glu Tyr Arg
            100                 105                 110
His Pro Asn Pro Ser Pro Tyr Pro Tyr His Pro Ser Gly His Ala Ser
        115                 120                 125
Asp Ser Gln Thr His Pro Thr Arg Asp Arg Pro Gln Pro Pro Pro Pro
    130                 135                 140
Gln Pro Ser Gln Pro Pro Pro Pro Arg Gly Pro Pro Pro Ala Arg Pro
145                 150                 155                 160
Pro Pro Pro Ser Tyr Pro Ala Trp Ser Trp Ser Ile Arg Pro Ala
                165                 170                 175

<210> 38578
```

<211> 200
<212> PRT
<213> A.fumigatus

<400> 38578

```
Ser Ser Ala Ala Leu Gly Ile Ser Ser Ser Arg Ser Ala Trp Leu Ser
1               5                  10                  15
Lys Ser Thr Val Ser Ser Thr Phe Ser Ser Pro Ser Ser Ser Ser Arg
            20                  25                  30
Ser Ser Ser Ser Ser Ala Asn Ala Ser Gly Met Ser Ser Ser Arg Ser
        35                  40                  45
Arg Ser Met Tyr Pro Ser Ser Ser Thr Ser Ser Ser Ser Ser Ser Pro
    50                  55                  60
Ser Ser Pro Ser Ser Thr Ser Pro Ser Ala Ser Ala Ser Gly Ile Ser
65                  70                  75                  80
Ser Ser Lys Ser Leu Ser Ile Pro Val Ser Ser Val Trp Ser Cys Ile
                85                  90                  95
Gly Phe Pro Asn Ser Ser Asn Pro Gly Ser Ala Ala Ala Ala Ala Ala
            100                 105                 110
Ala Ala Ile Ser Ala Ala Ala Ala Ala Ala Arg Ala Ser Ser Arg Ser Ala
        115                 120                 125
Ser Ser Ser Phe Ile Pro Ser Met Val Leu Glu His Pro Ala Gly Leu
    130                 135                 140
Ile His Glu Tyr Pro Asn Glu Ala Met Leu Phe Leu Arg Ala Trp Arg
145                 150                 155                 160
Ala Arg Ser Ser Ser Cys Asn Asp Asp Arg Leu Leu Pro Gly Val Val
                165                 170                 175
Ala Ala Arg Pro Phe Lys Ala Leu Cys Pro Leu Arg Arg Gly Trp Pro
            180                 185                 190
Cys Gly Gly Ala Ser Pro Gly Asn
        195                 200
```

<210> 38579
<211> 133
<212> PRT
<213> A.fumigatus

<400> 38579

```
Val Ile Phe Gln Ser Asp Ala Lys Asp Gly Ser Ile Leu Ile Phe Leu
1               5                  10                  15
Gln Pro Ser Leu Leu Leu Leu Ser Pro Ser Arg Asn Pro Leu Arg Pro
            20                  25                  30
Arg Arg Arg Pro Arg Arg Lys Arg Leu Leu Leu Leu Arg Lys Pro Arg
        35                  40                  45
Ile Leu Arg Lys Pro Pro Arg Leu Arg Ile Arg Pro Arg Ala Asp Leu
    50                  55                  60
Ser Leu Ala Arg Gly Pro Ala Ser Ser Ala Pro Ser Ser Val Arg Arg
65                  70                  75                  80
Arg Arg Leu Arg Arg Arg Arg Lys Arg Arg Pro Arg Thr Pro Ser Pro
                85                  90                  95
Ser Lys Pro Pro Leu Asn Leu Ser Pro Arg Pro Pro Leu Leu Leu Lys
            100                 105                 110
Leu Leu Arg Val Ser Phe Ile Asn Ile Gln Asn Leu Pro Arg Ser Gln
        115                 120                 125
Lys Ala Asp Cys His
    130
```

<210> 38580
<211> 220
<212> PRT
<213> A.fumigatus

<400> 38580
Ala Ala Ala Pro Ala Ser Ala Glu Glu Lys Lys Glu Glu Thr Glu Ala
1 5 10 15
Lys Lys Glu Glu Lys Lys Ala Glu Ser Pro Ala Pro Lys Ser Lys Arg
20 25 30
Thr Ser Leu Phe Gly Asn Phe Phe Gln Lys Val Thr Ser Pro Ser His
35 40 45
Glu Lys Ser Glu Lys Glu Ala Ala Ala His Ala Glu Thr Ser Ala Val
50 55 60
Ser Ser Thr Ala Pro Gln Leu Glu Asn Pro Val Glu Glu Ala Ala Val
65 70 75 80
Lys Pro Ile Glu Pro Glu Asn Val Thr Ala Ala Ser Ala Thr Glu Ala
85 90 95
Glu Ala Pro Lys Glu Ala Ala Ala Gln Ser Pro Ala Ala Glu Thr Pro
100 105 110
Ala Gly Lys Asp Lys Arg Arg Thr Ser Phe Phe Gly Asn Phe Gly Lys
115 120 125
Lys Lys Gly Asp Ser Asp Asn Glu Gly Thr Asp Gly Asp Ala Lys Ala
130 135 140
Lys Gly Asn Lys Leu Gly Gly Leu Phe Arg Lys Pro Ser Lys Ala Val
145 150 155 160
Lys Leu Asp Asn Lys Glu Ala Ala Ala Lys Glu Glu Asp Lys Ala Glu
165 170 175
Pro Thr Ala Gln Glu Thr Ser Ala Glu Ala Ala Pro Ala Glu Asp Ala
180 185 190
Ser Lys Pro Ala Glu Ala Pro Ala Thr Glu Glu Ala Lys Pro Ala Thr
195 200 205
Val Ala Ala Thr Thr Thr Pro Val Gln Ala Ala Ala
210 215 220

<210> 38581
<211> 134
<212> PRT
<213> A.fumigatus

<400> 38581
Leu Phe His Ser Leu Arg Leu Gly Arg Leu Gly Cys Cys Asn Arg Ser
1 5 10 15
Val Pro Ala Arg Asp Tyr Thr Arg Lys Gly Asp Leu Cys Ser Ser Val
20 25 30
Ser Cys Cys Trp Gln Val Arg Phe Ala Arg Ser Leu Pro Pro Ala Pro
35 40 45
Ser Lys Ser Gly Val Lys His Ser Thr Val Ala Gly Val Asn Ala Arg
50 55 60
Gln Arg Lys Pro Leu Pro Pro Ile Lys Val Asp Pro Asn Asp Pro Val
65 70 75 80
Ala Leu Lys Arg Ala Arg Asn Thr Glu Ala Ala Arg Lys Ser Arg Ala
85 90 95
Arg Lys Leu Glu Arg Gln Asp Glu Met Glu Arg Arg Ile Arg Glu Leu
100 105 110

```
Glu Lys Ser Leu Glu Glu Ala Gln Gln Arg Glu Gln Tyr Trp Lys Ala
        115                 120                 125
Leu Ala Gln Asn Arg Gly
    130

<210> 38582
<211> 496
<212> PRT
<213> A.fumigatus

<400> 38582
Asn His Pro His Leu Tyr Phe Phe Asn Ile Phe Thr Ile His Pro His
1               5                  10                  15
Asn Tyr Gln Glu Tyr Gln Ser Gln Tyr Pro Leu Gln Asn Gly Cys Leu
            20                  25                  30
Leu Ser Ser Ser Pro Arg Thr Ser Ser Ser Phe Ser Arg Glu Thr Asp
        35                  40                  45
Thr Ile Asp Pro Leu Arg Ser Ser Ser Leu Ser Thr Ile Ser Ser Gln
    50                  55                  60
Pro Ser Ser Glu Ser Pro Val Pro Gly Pro Leu Asn Leu Ser Ile Ala
65                  70                  75                  80
Ser Arg Ser Ser Ser Ser Ser Leu Asn Asn Ile Leu Pro Phe Asp Val
                85                  90                  95
Thr Ser Phe Thr Thr Asp Asn His Gln Gln Thr Trp Leu Pro Thr Pro
            100                 105                 110
Pro Pro Gln Gln Pro Ser Ala Gln Asn Leu Asn Ser Asn Ser Asn Asn
        115                 120                 125
Asp Asn Asn Ser Ser Pro Gln Glu Asp Phe Val Leu Tyr Pro Ala Pro
    130                 135                 140
Cys Pro Gln Pro Arg Leu Arg Asp Ser Arg Ala Pro Val Leu Pro Ser
145                 150                 155                 160
Thr Ala Pro Arg Ser Val Ser Tyr His Pro Phe Leu Val Arg Pro Gln
                165                 170                 175
Tyr Gln Gln Pro Arg Arg His Ser Leu Ser Leu Tyr Gln Gln Leu Gln
            180                 185                 190
Gln Gln Lys Leu Ser Gly Ser Pro Gly Gln Val Pro Arg Ala Thr Arg
        195                 200                 205
Leu His Ser Gln Ser Thr Gly Tyr Pro Leu Ser Ser Ser Leu Arg Ser
    210                 215                 220
Ser Pro Ser Ser Arg Thr His Phe His Arg Val His Ala Ala Ser Ala
225                 230                 235                 240
Pro Ser Asn Ser Pro Asn Pro Asn Arg Pro Pro Val Pro Leu Phe Ser
                245                 250                 255
Ala Ala Asn Gly Thr Gln Phe Thr Gln Lys Gln Leu Gln Gln Leu Gln
            260                 265                 270
Gln Leu Tyr His Arg Arg Ile Met Ser Thr Pro Asn Ile Ala Gln Gly
        275                 280                 285
Glu Leu Ile Glu Ile Met Ser Ala Ser Thr Trp Ser Asn Ser Ala Ala
    290                 295                 300
Asp Met Pro Asp Phe Phe Gly Leu Pro Ser Asn Asp Phe Gly Asp Asp
305                 310                 315                 320
Phe Glu Leu Ser Thr Glu Pro Thr Met Leu Ser Pro Asn Gln Ile Pro
                325                 330                 335
Thr Gly Leu Met Ala Val Lys Asp Ser Val Ala Gly Ala Pro Ser Gly
            340                 345                 350
Thr Ile Ser Pro Lys Asp Leu Phe Met Asp Ala Ser Ala Pro Pro Ser
```

```
        355                 360                 365
Thr Ser Phe Thr Asp Leu Ser Thr Pro Ser Phe Glu Ser Pro Gly Tyr
    370                 375                 380
Phe Ser Gln Asp Thr Ser Pro Met Phe Pro Thr Asp Leu Glu Leu Gly
385                 390                 395                 400
Pro Gly Ser Glu Glu Trp Gly Pro Leu Phe Pro Ala Gln Asp Asp Phe
                405                 410                 415
Ser Thr Ala Phe Asp Ser Ala Ala Leu Asp Ala Ala Ile Ala Leu Ser
            420                 425                 430
Gln Pro Glu Thr Ile Pro Ala Lys Glu Ile Ser Val Pro Pro Ser Pro
        435                 440                 445
Ala Val Gly Lys Ser Ala Ser Pro Ala Pro Phe Pro Leu Arg Gln Ala
    450                 455                 460
Ser Pro Val Leu Ser Thr Pro Pro Ser Pro Val Ser Met Leu Val Asn
465                 470                 475                 480
Ala Ser His Cys Pro Leu Ser Arg Leu Thr Pro Thr Thr Leu Ser Arg
                485                 490                 495

<210> 38583
<211> 131
<212> PRT
<213> A.fumigatus

<400> 38583
Val Ser Asp Leu Pro Ile Arg Cys Gln Arg Arg Ile Asn Ser Asn Phe
1               5                   10                  15
Leu Ala Ala Lys Pro Ala Val Ala Glu Pro Val Lys Lys Pro Val Glu
            20                  25                  30
Ala Lys Glu Glu Ala Lys Lys Glu Glu Ala Ala Pro Val Glu Glu Thr
        35                  40                  45
Lys Asp Ser Lys Glu Thr Thr Glu Val Lys Asp Lys Ala Lys Ser Arg
    50                  55                  60
Ser Gln Ser Arg Lys Arg Ala Ser Ile Phe Gly Ser Phe Leu Gly Lys
65                  70                  75                  80
Lys Glu Glu Thr Glu Glu Lys Lys Glu Glu Lys Thr Glu Asp Ala Lys
                85                  90                  95
Pro Val Glu Ala Ala Ala Glu Pro Val Ala Ala Thr Ser Ala Thr Ala
            100                 105                 110
Glu Ala Thr Glu Gly Glu Phe His Gln Tyr Ser Glu Ser Ala Ser Glu
        115                 120                 125
Pro Lys Ser
    130

<210> 38584
<211> 292
<212> PRT
<213> A.fumigatus

<400> 38584
Ile Phe Ser His Ser Phe Phe Ser Gln His Phe Leu Val Phe Val Phe
1               5                   10                  15
Gly His Gly Asn Asp Ser Thr Ala Cys Lys Gly Val Gly Arg Arg Ile
            20                  25                  30
Thr Leu Ile Pro Pro Phe Leu Lys Leu Asp Gly Thr Pro Leu Arg Met
        35                  40                  45
Ser Thr Ser Cys Cys Ser Leu Asp Gly Ser Arg Gly Ser Ser Asp Ser
```

```
    50                  55                  60
Arg Arg Leu Gly Leu Leu Gly Gly Gly Ser Phe Ser Gly Leu Ala Gly
65                  70                  75                  80
Ile Leu Ser Gly Ser Ser Leu Gly Gly Ser Leu Leu Ser Gly Gly Leu
                85                  90                  95
Gly Leu Val Leu Leu Leu Gly Ser Gly Phe Leu Val Val Glu Leu His
            100                 105                 110
Gly Leu Ala Gly Leu Ala Glu Lys Thr Ala Glu Leu Val Ala Leu Gly
        115                 120                 125
Leu Gly Ile Ala Val Gly Ala Leu Ile Val Arg Val Ala Leu Leu Leu
    130                 135                 140
Thr Glu Val Thr Glu Glu Arg Gly Ala Ala Leu Val Leu Ala Gly Arg
145                 150                 155                 160
Ser Leu Gly Ser Gly Gly Leu Ser Gly Ser Leu Leu Gly Gly Leu Gly
                165                 170                 175
Leu Ser Gly Arg Gly Gly Gly His Val Leu Arg Leu Asp Gly Leu His
            180                 185                 190
Gly Ser Leu Leu Asp Gly Val Leu Glu Leu Gly Ser Ser Ala Gly Asp
        195                 200                 205
Ser Gly Ser Leu Ser Met Ser Arg Ser Leu Leu Leu Arg Leu Leu Val
    210                 215                 220
Gly Gly Ala Gly Asn Phe Leu Glu Glu Val Thr Glu Gln Arg Gly Thr
225                 230                 235                 240
Leu Gly Leu Arg Ser Arg Ala Leu Gly Leu Leu Leu Leu Leu Leu Cys
                245                 250                 255
Leu Gly Leu Leu Leu Leu Leu Leu Gly Arg Gly Arg Ser Gly Ser Leu
            260                 265                 270
Met Thr Ile Ser Phe Leu Ala Pro Arg Gln Ile Leu Asn Ile Asp Glu
        275                 280                 285
Thr His Pro Gln
    290

<210> 38585
<211> 167
<212> PRT
<213> A.fumigatus

<400> 38585
Gln Arg Gln Ser Gln Ala Trp Pro Pro Arg Trp Arg Glu Leu Gln Arg
1               5                   10                  15
Ala Cys Trp His Pro Gln Arg Glu Gln Pro Arg Arg Lys Ser Pro Glu
            20                  25                  30
Arg Trp Ala Arg Pro Cys Pro Pro Pro Trp Gln Arg Leu Pro Cys Cys
        35                  40                  45
Arg Ala Ser Arg Pro Cys Trp Ala Cys Gly Lys Asp Arg Arg Ala Cys
    50                  55                  60
Cys Pro Trp Pro Trp His Arg Arg Arg Cys Pro His Cys Gln Ser Arg
65                  70                  75                  80
Pro Ser Ser Tyr Arg Ser Tyr Arg Arg Lys Arg Cys Gly Ala Cys Pro
                85                  90                  95
Cys Arg Gln Glu Ser Arg Gln Arg Gly Thr Glu Arg Gln Pro Pro Trp
            100                 105                 110
Gly Pro Arg Pro Gln Trp Gln Arg Arg Arg Ser Arg Ser Gln Ala Arg
        115                 120                 125
Trp Ala Ser Arg Gln Pro Pro Arg Arg Gly Ser Arg Ala Gly Glu Gln
    130                 135                 140
```

```
Cys Trp Arg Gln Arg Lys Ser Gln His Glu Pro Gln Pro Pro Ser Gln
145                 150                 155                 160
Thr Ser Arg Gly Arg Gly Trp
                165
```

<210> 38586
<211> 120
<212> PRT
<213> A.fumigatus

<400> 38586

```
Ile Ser Gln His Gly Leu Asn Ser Leu Trp Ala Leu Leu Glu Ile Ile
1               5                   10                  15
Leu Pro Thr Thr Asn Pro His Ser Leu Leu Ala Phe Pro Val Leu Val
            20                  25                  30
Leu Ile Leu Leu Leu Tyr Val Ala Leu Ala Tyr Leu Thr Tyr His Thr
        35                  40                  45
Glu Gly Phe Tyr Thr Tyr Ser Phe Leu Asp Pro Gly Pro Asp Gly Glu
    50                  55                  60
His Ser Gly Arg Val Thr Gly Tyr Cys Phe Gly Ile Phe Ala Ala Ile
65                  70                  75                  80
Leu Val Ile Phe Ile Leu Ser Trp Ala Ala Ile Trp Leu Arg Arg Arg
                85                  90                  95
Leu Thr His Gly Lys Ile Lys Arg Ser Val Tyr Asp Lys Glu Asp Val
            100                 105                 110
Pro Glu Met Arg His Val Gly Val
        115                 120
```

<210> 38587
<211> 82
<212> PRT
<213> A.fumigatus

<400> 38587

```
His Leu Phe Leu Phe Gln Pro Gln Ser Phe Val Leu Arg Ala Tyr Ile
1               5                   10                  15
Asn Thr Ala Met Ala Ala Ser Pro Ala Ala Ile Ala Pro Thr Ala Pro
            20                  25                  30
Glu Ser Lys Val Glu Gly Leu Gly Leu Tyr Ser Arg Phe Ala Phe Ala
        35                  40                  45
Gly Ala Val Cys Cys Ser Val Thr His Gly Ala Phe Thr Pro Val Asp
    50                  55                  60
Val Tyr Ala Val His Leu Gly Ser Ala Pro Lys Phe Asn Lys Cys Met
65                  70                  75                  80
Thr Cys
```

<210> 38588
<211> 150
<212> PRT
<213> A.fumigatus

<400> 38588

```
Pro Ser Tyr Ser Val Lys Thr Arg Ile Gln Leu Asp Pro Lys Thr Tyr
1               5                   10                  15
Asn Arg Gly Met Ile Gly Gly Phe Arg Gln Val Ile Gln Asn Glu Gly
```

```
            20                  25                  30
Ala Gly Ala Leu Leu Thr Gly Ile Gly Pro Thr Phe Ala Gly Tyr Phe
        35                  40                  45
Met Gln Gly Ala Phe Lys Phe Gly Gly Tyr Glu Phe Phe Lys Gln Gln
    50                  55                  60
Ser Ile Asn Val Leu Gly Leu Glu Thr Ala Arg Gln Asn Arg Thr Ala
65                  70                  75                  80
Val Tyr Ser Val Ser Ala Ala Cys Ala Glu Phe Phe Ala Ser Ile Ala
                85                  90                  95
Leu Cys Pro Leu Glu Ala Thr Arg Ile Arg Leu Val Ser Glu Pro Gly
            100                 105                 110
Phe Ala Asn Gly Leu Phe Ser Gly Phe Gly Lys Ile Leu Lys His Glu
        115                 120                 125
Gly Val Gly Ala Phe Tyr Arg Gly Phe Gly Pro Ile Leu Leu Lys Gln
    130                 135                 140
Tyr Val Gly Ser Thr Thr
145                 150
```

<210> 38589
<211> 147
<212> PRT
<213> A.fumigatus

<400> 38589

```
Tyr Arg Val Pro Tyr Thr Val Thr Lys Phe Val Val Tyr Glu Lys Val
1                   5                   10                  15
Ala Glu Ala Val Phe Ala Arg Leu Asp Lys Ser Lys Leu Ser Asn Ser
            20                  25                  30
Ala Gln Thr Gly Val Asn Leu Gly Ser Gly Leu Ile Ala Gly Phe Ala
        35                  40                  45
Ala Ala Ile Ile Ser Gln Pro Ala Asp Thr Met Leu Ser Lys Ile Asn
    50                  55                  60
Lys Thr Lys Gly Leu Pro Gly Glu Ser Thr Val Ser Arg Leu Ile Lys
65                  70                  75                  80
Ile Ala Gly Glu Leu Gly Phe Arg Gly Ser Phe Ala Gly Leu Pro Thr
                85                  90                  95
Arg Leu Phe Met Ile Gly Gly Leu Thr Ala Gly Gln Phe Ala Ile Tyr
            100                 105                 110
Gly Asp Ile Lys Lys Ala Leu Gly Lys Ser Asp Tyr Phe Leu Gly Gly
        115                 120                 125
Ser Gln Arg Leu Thr Phe Val Pro Leu Gly Ala Thr Asn Gly Val Glu
    130                 135                 140
Ile Ala Lys
145
```

<210> 38590
<211> 111
<212> PRT
<213> A.fumigatus

<400> 38590

```
Ser Gly Pro Phe Tyr Cys Ser Leu His Gly Arg Ala Arg Cys Thr Pro
1                   5                   10                  15
Cys Gly Glu Ala Lys Phe Ile Asp Pro Cys Thr Pro Arg Ala Gly Ser
            20                  25                  30
Pro Tyr Asp Ile Thr Leu Glu Met Ser His Asn Pro Asn Lys Asn Pro
```

```
        35                  40                  45
Leu Ile Thr Val Lys Leu Gln Lys Lys Arg Tyr Gly Pro Lys Asp Ala
    50                  55                  60
Glu Ala Val Thr Asp Ala His Leu Leu Ile Val Ser Ile Phe Ser Arg
65                  70                  75                  80
Asn Pro Val Leu Arg Val Glu Asp Glu Met Leu Asp Gln Gly Pro Asn
                85                  90                  95
Arg Gly Leu Asp Val Pro Thr Val Gln Gly Ile Tyr Phe Phe Ser
            100                 105                 110
```

<210> 38591
<211> 204
<212> PRT
<213> A.fumigatus

```
<400> 38591
Ile Asn Ser Ser Ser Thr Pro Phe Pro Pro Leu Pro Pro Gly Ala Thr
1               5                   10                  15
Ser His Pro His Ala Arg Thr Thr Ala Thr Ala Ala Ala Val Ala Asn
            20                  25                  30
Met Lys Leu Ser Lys Pro Ser Phe Gly Val Asp Ser Ser Leu Asp Ser
        35                  40                  45
Arg His Cys Tyr Glu Thr Ser Trp Leu Leu Pro Pro Leu Pro Phe Ala
    50                  55                  60
Leu Leu Arg Ala Leu Ile Ala Leu Tyr Ile Phe Val Thr Ile Phe Phe
65                  70                  75                  80
Ile Trp Gly Trp Asn Gly Thr His Gly Asp Ser Asp Ala Ile Gly Gln
                85                  90                  95
Ser Phe Ser Tyr Phe Thr Trp Leu Thr Tyr Trp Gly Leu Gly Phe Tyr
            100                 105                 110
Tyr Leu Val Ala Ala Ile His Thr Ala Cys Tyr Ala Arg Thr Gly Arg
        115                 120                 125
Ser Val Leu Phe Asp Arg Leu Pro Arg Ala Leu Arg Ala Leu His Ala
    130                 135                 140
Ile Phe Tyr Thr Thr Ile Thr Thr Phe Pro Phe Leu Val Thr Ile Val
145                 150                 155                 160
Phe Trp Ala Ile Leu Phe Glu Pro Pro Trp Tyr Thr Arg Thr Phe Gln
                165                 170                 175
Ala Trp Ser Asn Val Cys Cys Pro Cys Leu Lys Thr Gln Lys Lys Lys
            180                 185                 190
Val Ser Gln Ser Glu Cys Pro Val Ser Leu Thr Leu
        195                 200
```

<210> 38592
<211> 62
<212> PRT
<213> A.fumigatus

```
<400> 38592
Gln Val Val Gln Gly Ser Cys His Val Ile Tyr Pro Val Lys Leu Pro
1               5                   10                  15
Gln Ser Trp Asp Leu Gln Phe Cys Phe Gln Gln Arg Thr Lys Leu Phe
            20                  25                  30
Gln Thr Gln Tyr Cys Ile Asp Cys Gly Pro Arg Tyr Glu Ile Arg Pro
        35                  40                  45
Tyr Leu Thr Asp Ala Lys Phe Ser Gly Gly Ser Thr Thr His
```

50 55 60

<210> 38593
<211> 652
<212> PRT
<213> A.fumigatus

<400> 38593

```
Ser Ala Ile Lys His Val Trp Ser Val Ala Ser Thr Ser Ser Ser Ser
1               5                  10                  15
Ser Ser Ser Ser Ser Ser Ala Ala Ala Ala Ala Ser Ser Ser Ile Gly
            20                  25                  30
Leu Ser Ser Thr Met Ser Leu Ser Leu Ser Ser Ser Ala Ile Pro Ser
        35                  40                  45
Val Thr Pro Ser Ala Thr Pro Val Ser His Gly Ser Val Leu Ser Asn
    50                  55                  60
Ile Leu Val Ile Ala Lys Asp Ser Ser Ala Ala Ser Ser Ala Thr Ser
65                  70                  75                  80
Gly Leu Asn Ala Tyr Gly Ile Pro Tyr Thr Thr Leu Leu Val Pro Gln
                85                  90                  95
Ala Gly Val Gly Leu Pro Ala Leu Asn Ser Ser Asn Val Gly Asn Tyr
            100                 105                 110
Gly Gly Ile Val Val Ala Ala Glu Val Ser Tyr Asp Tyr Gly Gly Thr
        115                 120                 125
Thr Gly Tyr Gln Ser Ala Leu Thr Thr Asp Gln Trp Asn Gln Leu Tyr
    130                 135                 140
Ala Tyr Gln Leu Glu Tyr Gly Val Arg Met Val Gln Phe Asp Val Tyr
145                 150                 155                 160
Pro Gly Pro Lys Phe Gly Ala Ser Ala Val Asn Gly Gly Cys Cys Asn
                165                 170                 175
Thr Gly Val Glu Gln Leu Leu Ser Phe Thr Asp Thr Ser Asp Phe Pro
            180                 185                 190
Thr Ala Gly Leu Lys Thr Gly Ala Thr Val Ser Thr Glu Gly Leu Trp
        195                 200                 205
His Tyr Pro Ala Thr Ile Ser Asn Ser Ser Asn Thr Lys Glu Ile Ala
    210                 215                 220
Gln Phe Ala Pro Asn Ala Val Thr Ser Thr Ala Ser Thr Ala Ala Val
225                 230                 235                 240
Ile Asn Asn Phe Asp Gly Arg Glu Gln Met Ala Phe Phe Ile Gly Phe
                245                 250                 255
Ala Thr Asp Trp Ser Ala Thr Ser Asn Tyr Leu Gln His Ala Trp Ile
            260                 265                 270
Thr Trp Leu Thr Arg Gly Leu Tyr Ala Gly His Arg Arg Val Asn Leu
        275                 280                 285
Asn Thr Gln Ile Asp Asp Met Phe Leu Val Thr Asp Ile Tyr Tyr Pro
    290                 295                 300
Asn Gly Ser Thr Phe Arg Ile Thr Val Glu Asp Met Asn Gly Ile Ser
305                 310                 315                 320
Ala Trp Val Pro Thr Ile Asn Ala Lys Met Asn Pro Gly Ser Ser Tyr
                325                 330                 335
Phe Val Glu Val Gly His Asn Gly Asn Gly Asn Ile Glu Gln Ser Ser
            340                 345                 350
Ser Thr Asp Ala Gly Ala Ala Ala Cys Asn Gly Gly Gly Ile Glu Tyr
        355                 360                 365
Asp Ser Pro Pro Asp Thr Pro Leu Glu Phe Lys Lys Pro Leu Gly Thr
    370                 375                 380
```

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```
Gly Thr Asp Leu Trp Pro Ser Thr Pro Thr Thr Tyr Asp Trp Thr Val
385                 390                 395                 400
Ala Cys Thr Gln Leu Asp Asp Leu Leu Arg Trp Trp Thr Thr Pro Ala
                405                 410                 415
Asn Arg Asp Ala Phe Gly His Ile Ser His Thr Phe Thr His Glu Glu
            420                 425                 430
Gln Asn Asn Ala Thr Tyr Ala Asp Val Phe Lys Glu Ile Ser Phe Asn
        435                 440                 445
Gln Ala Trp Leu Lys Gln Val Gly Leu Asp Gln Ala Lys Trp Phe Thr
    450                 455                 460
Ser Asn Gly Ile Ile Pro Pro Ala Ile Thr Gly Leu His Asn Gly Asp
465                 470                 475                 480
Ala Leu Gln Ala Trp Trp Asp Asn Gly Ile Arg Asn Cys Val Gly Asp
                485                 490                 495
Asn Thr Arg Pro Val Leu Met Asn Gln Gln Asn Ala Met Trp Pro Tyr
            500                 505                 510
Phe Thr Thr Val Glu Ser Asp Gly Phe Ala Gly Met Gln Val Asn Pro
        515                 520                 525
Arg Trp Ala Thr Arg Ile Tyr Tyr Asn Cys Asp Thr Pro Ala Cys Thr
    530                 535                 540
Val Gln Glu Trp Ile Asp Thr Ser Ala Gly Ala Gly Ser Phe Asp Asp
545                 550                 555                 560
Leu Leu Ala Val Glu Lys Ala Asp Thr Met Arg His Leu Leu Gly Leu
                565                 570                 575
Arg His Asp Gly Tyr Met Phe His Gln Ala Asn Leu Arg Asn Ala Asp
            580                 585                 590
Val Thr Pro Ile Thr Val Asn Gly Val Thr Ala Lys Tyr Ser Ile Phe
        595                 600                 605
Gln Ala Trp Val Glu Thr Ile Val Gln Glu Phe Val Arg Leu Val Asp
    610                 615                 620
Trp Pro Leu Val Thr Ile Thr His Gln Glu Val Cys Pro Tyr Pro Phe
625                 630                 635                 640
Ser Tyr Asp Val Tyr Leu Tyr Lys Leu Gln Pro Gly
                645                 650
```

<210> 38594
<211> 88
<212> PRT
<213> A.fumigatus

<400> 38594

```
Met Ser Glu Asn Phe Leu Ala Arg Tyr Gln Arg Asp Gln Cys Gly Tyr
1                   5                   10                  15
Gly Leu Ser Tyr Ala Val Ala Asp Lys Lys Ile Thr Ala Val Thr Val
            20                  25                  30
Thr Ala Thr Gly Asn Thr Cys Ser Arg Pro Ile Pro Val Thr Phe Pro
        35                  40                  45
Val Ala Pro Thr Ser Thr Gln Gly Tyr Ala Thr Glu Gln Leu Gly Ser
    50                  55                  60
Asp Pro Leu Thr Val Trp Val Gln Leu Ser Gly Ser Pro Val Thr Phe
65                  70                  75                  80
Thr Leu Ser Thr Pro Ile Ala Leu
                85
```

<210> 38595
<211> 89

<212> PRT
<213> A.fumigatus

<400> 38595
Thr Ser Arg Thr Pro Cys Gly Arg Ile Ser Pro Arg Trp Ser Arg Thr
1 5 10 15
Gly Ser Pro Ala Cys Arg Ser Thr Pro Ala Gly Pro Arg Ala Ser Thr
20 25 30
Thr Thr Ala Thr Arg Arg Pro Ala Pro Cys Arg Ser Gly Ser Thr Pro
35 40 45
Pro Pro Ala Pro Ala Ala Ser Thr Thr Cys Trp Pro Trp Arg Arg Pro
50 55 60
Thr Pro Cys Ala Ile Ser Ser Ala Cys Gly Met Thr Gly Thr Cys Ser
65 70 75 80
Thr Arg Pro Thr Cys Ala Thr Arg Thr
85

<210> 38596
<211> 648
<212> PRT
<213> A.fumigatus

<400> 38596
Phe Val Gln Val Asp Ile Val Arg Lys Arg Ile Gly Thr Tyr Leu Leu
1 5 10 15
Val Gly Asp Gly Asp Gln Arg Pro Val Asp Gln Ala Asp Glu Phe Leu
20 25 30
His Asn Arg Leu Asn Pro Arg Leu Glu Asn Arg Val Leu Gly Arg His
35 40 45
Ala Val Asp Arg Asp Arg Gly His Val Arg Val Ala Gln Val Gly Leu
50 55 60
Val Glu His Val Pro Val Met Pro Gln Ala Glu Glu Met Ala His Gly
65 70 75 80
Val Gly Leu Leu His Gly Gln Gln Val Val Glu Ala Ala Gly Ala Gly
85 90 95
Gly Gly Val Asp Pro Leu Leu His Gly Ala Gly Arg Arg Val Ala Val
100 105 110
Val Val Asp Ala Arg Gly Pro Ala Gly Val Asp Leu His Ala Gly Glu
115 120 125
Pro Val Arg Leu His Arg Gly Glu Ile Arg Pro His Gly Val Leu Leu
130 135 140
Val His Gln His Arg Ala Gly Val Val Ala His Ala Val Ala Asp Ala
145 150 155 160
Ile Val Pro Pro Gly Leu Gln Arg Ile Ala Val Val Gln Thr Gly Asp
165 170 175
Gly Arg Gly Asp Asp Ala Ile Gly Gly Glu Pro Leu Gly Leu Val Gln
180 185 190
Ala Asp Leu Leu Gln Pro Gly Leu Val Glu Gly Asn Leu Leu Glu Asp
195 200 205
Val Arg Val Gly Arg Val Val Leu Leu Leu Val Gly Glu Gly Val Arg
210 215 220
Asp Val Ala Glu Arg Val Ala Val Gly Arg Arg Gly Pro Pro Pro Gln
225 230 235 240
Gln Val Ile Glu Leu Gly Ala Gly Asp Arg Pro Val Val Gly Arg Arg
245 250 255
Arg Arg Gly Pro Glu Val Gly Pro Arg Ala Gln Gly Leu Leu Glu Phe

```
            260                 265                 270
Gln Gly Ser Val Arg Gly Arg Val Val Phe Asp Ala Ala Pro Val Ala
        275                 280                 285
Gly Gly Arg Pro Arg Val Gly Gly Arg Arg Leu Leu Asp Val Ala Val
    290                 295                 300
Ala Val Val Ala His Leu Asp Lys Val Arg Ala Ala Gly Val His Leu
305                 310                 315                 320
Gly Val Asp Gly Arg Asp Pro Gly Arg Asp Ala Val His Val Leu Asp
                325                 330                 335
Gly Asp Ala Glu Gly Gly Ser Val Arg Val Val Asp Val Gly Asp Glu
            340                 345                 350
Glu His Val Val Asp Leu Arg Val Gln Val Asp Ala Ala Val Ala Arg
        355                 360                 365
Val Gln Pro Ala Gly Glu Pro Gly Asp Pro Gly Val Leu Gln Val Val
    370                 375                 380
Gly Gly Arg Ala Pro Val Gly Gly Lys Ala Asn Glu Glu Arg His Leu
385                 390                 395                 400
Leu Ala Ala Val Lys Val Val Asp Asp Arg Arg Ser Ala Arg Gly Arg
                405                 410                 415
Gly Asp Arg Val Gly Ser Glu Leu Gly Asp Leu Leu Gly Val Ala Arg
            420                 425                 430
Val Ala Asp Arg Gly Arg Val Val Pro Glu Ala Leu Gly Ala Asp Arg
        435                 440                 445
Arg Ala Arg Leu Gln Ala Gly Arg Gly Glu Val Thr Gly Val Gly Glu
    450                 455                 460
Arg Glu Gln Leu Leu His Ala Gly Val Ala Ala Thr Ala Val Asp Arg
465                 470                 475                 480
Thr Gly Ala Lys Leu Gly Ala Gly Val Asp Val Glu Leu His His Ala
                485                 490                 495
His Ala Val Leu Glu Leu Val Gly Ile Gln Leu Val Pro Leu Val Gly
            500                 505                 510
Gly Gln Gly Ala Leu Val Ala Gly Arg Ala Pro Val Val Val Ala Asp
        515                 520                 525
Leu Gly Arg His Asp Asn Pro Ala Val Val Ala Asp Ile Ala Gly Val
    530                 535                 540
Glu Ser Arg Glu Ala His Thr Arg Leu Gly Asp Gln Gln Gly Gly Val
545                 550                 555                 560
Arg Asp Ala Val Arg Ile Glu Pro Arg Gly Arg Arg Thr Gly Arg Arg
                565                 570                 575
Arg Val Leu Gly Asp His Gln Asp Val Gly Gln Asp Arg Ala Val Ala
            580                 585                 590
Asp Gly Ser Arg Arg Gly Gly His Arg Gly Asp Gly Ala Arg Thr Glu
        595                 600                 605
Ala Glu Arg His Gly Gly Gly Gln Ala Asn Arg Gly Arg Arg Ser Ser
    610                 615                 620
Ser Ser Arg Arg Arg Arg Arg Arg Arg Arg Arg Arg Ser Arg Ser His
625                 630                 635                 640
Arg Pro Asn Val Phe Tyr Arg Arg
                645
```

<210> 38597
<211> 114
<212> PRT
<213> A.fumigatus

<400> 38597

```
Pro Ala Ser Tyr Val Ser Pro Arg Thr Arg Ala Gln Arg Thr Leu Glu
1               5                  10                  15
Leu Leu Glu Ile Gly Cys Lys Glu Arg Leu Pro Trp Thr Glu Ala Arg
            20                  25                  30
Lys Ser Glu Glu Glu Glu Pro Ile Arg Thr Glu Ala Lys Val Glu Ile
        35                  40                  45
Thr Asp Ala Ile Arg Glu Trp Asp Tyr Gly Asp Tyr Glu Gly Leu Thr
    50                  55                  60
Ser Lys Gln Ile Arg Glu Leu Arg Glu Lys Asn Gly Gln Gly Pro Trp
65                  70                  75                  80
Asp Ile Trp Arg Asp Gly Cys Pro Gly Gly Glu Tyr Gly Thr His Ser
                85                  90                  95
Val Ser Ser Cys Lys Pro Glu Cys Pro Phe Val Val Gly Leu Ala Gln
            100                 105                 110
Arg Ser
```

<210> 38598
<211> 127
<212> PRT
<213> A.fumigatus

<400> 38598

```
Leu Ser Ala Cys Met Thr Gln Leu Pro Thr Lys Leu Asn Asn Val Phe
1               5                  10                  15
Pro His Pro Gln Arg Asn Leu Gly Phe Leu Thr Tyr Leu Leu Ser Val
            20                  25                  30
Ala Thr Lys Val Asp Ser Ile Lys Arg Arg Thr Leu Lys Ser Val Ile
        35                  40                  45
Ala Asn Thr Arg Gly Lys Glu Met Thr Pro Arg Cys Phe Ile Val Arg
    50                  55                  60
His Gly Glu Thr Glu Trp Ser Leu Asn Gly Arg His Thr Gly Ser Thr
65                  70                  75                  80
Asp Leu Pro Leu Thr Ala Ser Gly Glu Lys Arg Ile Lys Ala Thr Gly
                85                  90                  95
Lys Ala Leu Val Gly Asn Asp Arg Leu Ile Val Pro Lys Lys Leu Ala
            100                 105                 110
His Val Tyr Val Tyr Val Phe Trp Asn Tyr Ser Arg Met Lys Leu
        115                 120                 125
```

<210> 38599
<211> 63
<212> PRT
<213> A.fumigatus

<400> 38599

```
Tyr Ala Ser Pro His Thr Arg Ser Ala Thr Ser Gln Asn Val Phe Gly
1               5                  10                  15
Thr Ser Pro Lys Lys Gln Ser Tyr Ala Ala Pro Ala Trp Trp Gln Val
            20                  25                  30
Arg Leu Gly Tyr Asp Asp Thr Ser Trp Ala Pro Trp Val Ser Tyr Ala
        35                  40                  45
Arg Asn Val Lys Ala Thr Lys Arg Thr Thr Arg Ser Thr Phe Gly
    50                  55                  60
```

<210> 38600

<211> 466
<212> PRT
<213> A.fumigatus

<400> 38600

```
Arg Gly Leu Gln Ser Arg Arg Pro Met Glu Ile Glu Thr Tyr Leu Gly
1               5                  10                  15
Ser Pro Ile Lys Leu Ala Thr Glu Ser Gly Ile Arg Val Pro Arg Ile
            20                  25                  30
Glu Thr Leu Tyr Ala Ala Leu His His Ile Asn Thr Asn Asn Leu Asn
        35                  40                  45
Arg Pro Ser Thr Asn Asp Thr Pro Pro Pro Ile Leu Ala Gln Pro Pro
    50                  55                  60
Pro Arg Met Ser Ser Ala Pro Pro Pro Arg Asn Ser Pro Met Arg Pro
65                  70                  75                  80
Pro Pro Gly Gly Arg Ser Gly Ser Gly Met Met Ile Pro Pro Gly Arg
                85                  90                  95
Arg Gly Tyr Pro Met Pro Gly Met Ser Arg Pro Pro Ser Gly Gln Pro
            100                 105                 110
Val Pro Pro Ser Ala Arg Ile Pro Arg Glu Pro Ser Leu Glu Gly Leu
        115                 120                 125
Glu Glu Phe Ser His Leu Val Val Tyr Asp Glu Phe Ala Glu Gly Gly
    130                 135                 140
Met Pro Arg Gln Asn Gly Ser Asn Gly Met His Asp Met Pro Pro Gly
145                 150                 155                 160
Pro Pro Pro Ala Ala Ala Asp Leu Ala Leu Arg Glu Arg Glu Leu Ala
                165                 170                 175
Leu Arg Gln Arg Glu Leu Gln Leu Arg Glu Gln Glu Met Gln Met Arg
            180                 185                 190
Arg Gly Pro Arg Ser Arg Ala Ala Pro Ser Arg Ala Ala Ala Phe Asp
        195                 200                 205
Glu Asp Asp Glu Asp Asp Tyr Phe Asp Pro Met Asp Asn Ile Pro Ile
    210                 215                 220
Pro His Ile Asp Pro Asp Ser Val Asp Met Met Ser Ile Thr Ser Arg
225                 230                 235                 240
Arg Thr Arg Lys Ala Pro Ser Ala Ser Gln Phe Arg Lys Asn Pro Glu
                245                 250                 255
Ile Ser Val Asn Gly Arg Pro Gln Ser Ser Phe Ser Arg Tyr Leu Pro
            260                 265                 270
Gly Arg Lys Arg Thr Ser Glu Arg Ile Met Gln Glu Ile Pro Gly Leu
        275                 280                 285
His Asp Ser Leu Met Asp Asn Pro Met Met Ala Tyr Ser Ser Asn Arg
    290                 295                 300
Tyr Gly Ser Val Asp Arg Asn Gln Ile Gln Ala Gly Ser Arg Ala Asn
305                 310                 315                 320
Ser Met Thr Ala Ser Arg Met Gly Asp Phe Pro Pro His Pro Tyr Pro
                325                 330                 335
Gln Ser Arg Lys Asn Ser Gln Ser Pro Ala Thr Pro Tyr Gly Gly Pro
            340                 345                 350
Gly Pro Arg Met Gly Arg Pro Ser Thr Ala Gln Asp Gln Pro Val Gly
        355                 360                 365
Pro Pro Gly Pro His Gly Gly His Pro Ser Pro Pro Gly Asn Met Arg
    370                 375                 380
Ala Pro Val Pro Lys Tyr Pro Pro Gly His Gly Asn Ala Val Gly Pro
385                 390                 395                 400
Gln Gln Val Glu Gln His Tyr Gly Val Ser Asn Pro Tyr Pro Ala Lys
```

```
                405                 410                 415
Gly Thr Pro Lys His Arg Ser Leu Thr Gly Ser Ala Ser Ala Ser Ala
            420                 425                 430
Glu Ser Gly Asp Ser Gly Ala Ser Ala Asn Leu Asp Ser Glu Ala Ser
        435                 440                 445
Ala His Ser Ser Gln Ile Ser Leu Gly Ala Gln Gln Ala Ala Met Pro
    450                 455                 460
Val Arg
465
```

<210> 38601
<211> 98
<212> PRT
<213> A.fumigatus

<400> 38601

```
Pro Ser Leu Leu Tyr Thr Thr Cys Thr Gly Ala Ser Ser Leu Gln Ala
1               5                   10                  15
Ala Ser His Val Phe Tyr Ile Ile Leu Pro Ser Phe Ser Thr Arg Tyr
            20                  25                  30
Phe Phe Tyr Leu His Ser Leu Leu Ser Glu Phe Pro Cys Ile Cys Ser
        35                  40                  45
Asp Phe Phe Tyr Arg Asp Phe Ala Lys Gly Ser Ala Ala Phe Asn Thr
    50                  55                  60
Arg Lys Phe Met Val Trp Phe Trp Arg Ile Lys Lys Ser Arg Gly Ser
65                  70                  75                  80
Asp Leu Phe Gly Arg Ser Ile Asp Leu Ile Trp Leu Ser Ser Arg Leu
                85                  90                  95
Ala Arg
```

<210> 38602
<211> 137
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (120),(130)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38602

```
Ile Asp Leu Arg Ser Lys Leu Gln Ile Ser Thr Tyr Lys Thr Pro Arg
1               5                   10                  15
Asn Pro Asp Pro Ser Thr Met Ser Asp Val Ala Glu Thr Lys Ser Asp
            20                  25                  30
Pro Ala Thr Asn Ala Pro Glu Ala Gln Lys Pro Glu Glu Thr Thr Thr
        35                  40                  45
Ala Ala Asn Thr Glu Glu Ser Lys Pro Ala Glu Glu Lys Thr Val Thr
    50                  55                  60
Glu Ala Ala Val Asp Thr Val Lys Asp Thr Ala Thr Lys Thr Ser Asp
65                  70                  75                  80
Ser Val Phe Ser Met Phe Gly Gly Gly Pro Lys Lys Glu Arg Lys Lys
                85                  90                  95
Lys Ala Glu Asp Ala Lys Asp Glu Pro Ser Gly Ser Ser Lys Val His
            100                 105                 110
```

```
Lys Gly Glu Glu Glu Val Ser Xaa Leu Phe Leu His Trp Cys Leu Ser
        115                 120                 125
Cys Xaa Asp Ala Cys Cys Trp Leu Ser
    130                 135
```

<210> 38603
<211> 87
<212> PRT
<213> A.fumigatus

<400> 38603

```
Asp Glu Ala Pro Glu Ser Pro Asp Val His Phe Glu Pro Val Ile Arg
1               5                   10                  15
Leu Thr Glu Lys Val Glu Val Lys Thr Asn Glu Glu Leu Glu Glu Gln
            20                  25                  30
Val Phe Lys Met Arg Ala Lys Leu Phe Arg Phe Asp Ala Glu Ser Lys
        35                  40                  45
Glu Trp Lys Glu Arg Gly Thr Gly Asp Val Arg Leu Leu Lys His Lys
    50                  55                  60
Glu Asn His Lys Thr Arg Leu Val Met Arg Arg Asp Lys Thr Leu Lys
65                  70                  75                  80
Val Cys Ala Asn His Tyr Gly
                85
```

<210> 38604
<211> 112
<212> PRT
<213> A.fumigatus

<400> 38604

```
Val Asp Cys Leu Ala Ala Asn Gly Cys Ser Val Val Pro Asp Met Lys
1               5                   10                  15
Leu Lys Pro Asn Val Gly Ser Asp Arg Ser Trp Val Trp Ser Val Ala
            20                  25                  30
Ala Asp Val Ser Glu Gly Glu Pro Glu Ala Gln Thr Leu Ala Ile Arg
        35                  40                  45
Phe Ala Asn Ser Glu Ser Lys Ser Trp Met Met Ile Ser Leu Gly Phe
    50                  55                  60
Ile Gln Cys Leu Leu Ile Arg His Tyr Arg Gly His Phe Phe Ser Arg
65                  70                  75                  80
Lys Pro Ser Arg Arg Pro Ser Arg Arg Thr Arg Ser Ser Ser Ala Ser
                85                  90                  95
Ser Lys Lys Leu Gln Leu His Ala Ser Trp Arg Leu Arg Cys Leu Leu
            100                 105                 110
```

<210> 38605
<211> 77
<212> PRT
<213> A.fumigatus

<400> 38605

```
Arg Arg Pro Trp Pro Tyr Ser Ser Thr Leu Val Ala Val Asn Thr Ala
1               5                   10                  15
His Cys Ser Leu Pro Thr Phe Pro Pro Asp Ser Ile Asp Glu Gly Phe
            20                  25                  30
His Ile Thr Pro Leu Leu Ser Ser His Val Ser Val Ser Ser Ile His
```

```
        35                  40                  45
Pro Tyr Ser Arg Tyr Leu Lys Val Glu Leu Thr Cys Ser Ser Leu Gln
    50                  55                  60
Leu Val Asp Ile Glu His Leu Tyr Phe Ser Ser Asn Tyr
65                  70                  75
```

<210> 38606
<211> 94
<212> PRT
<213> A.fumigatus

<400> 38606

```
Ser Trp Trp Cys Cys Leu Val Cys Leu Val Val Met Leu Thr Leu Ala
1               5                   10                  15
Leu Ala Tyr Ser Arg Asn Lys Asp Ser Gly Val Glu Gly Phe Pro Leu
            20                  25                  30
Arg Ser Trp Ser Ile Glu Ile Tyr Leu Val Asn Glu His Gly Glu Gln
        35                  40                  45
Val Pro Ala Asn Val Phe Asp Lys Val Thr Tyr Thr Leu His Pro Ser
    50                  55                  60
Phe Gly Asp Arg Ala Val Gln Ser Thr Ser Leu Pro Leu Arg Pro Cys
65                  70                  75                  80
Tyr Gln Ile Leu Val Thr Pro Arg Gly Gln Arg Asp Asp Gln
                85                  90
```

<210> 38607
<211> 111
<212> PRT
<213> A.fumigatus

<400> 38607

```
Ile Glu Thr Asp Thr Gln Arg Val Lys Gln Thr Ala Phe Lys Asn Pro
1               5                   10                  15
Pro Phe Arg Ile Ser Glu Glu Gly Trp Gly Glu Phe Asp Leu Gln Ile
            20                  25                  30
Gly Leu Thr Ala Ala Asp Lys Glu His Phe Leu Thr His Asp Leu Asn
        35                  40                  45
Phe Ala Gln Pro Arg Tyr Glu Ser Lys His Val Ile Val Ser Thr Thr
    50                  55                  60
Pro Cys Val Leu Ala Arg Leu Ile Ser Pro Ser Gly Thr Cys Thr His
65                  70                  75                  80
Ser Phe Tyr Leu Cys Arg Arg Ser Arg Thr Pro Ser Gln Arg Cys Trp
                85                  90                  95
Leu Tyr Cys Ala Ser Arg Asp Gln Tyr Pro Val Thr Arg Thr Glu
            100                 105                 110
```

<210> 38608
<211> 124
<212> PRT
<213> A.fumigatus

<400> 38608

```
Val Trp Phe Leu Ser Ser Gln Pro Arg Arg Ile Leu Ser Gly Glu Asp
1               5                   10                  15
Ser Thr Ser Thr Asn Leu Thr Ser Ser Arg Thr Arg Ser Thr Trp Thr
            20                  25                  30
```

```
Asn Trp Gln Met Ala Ser Lys Asp Leu Glu Lys Thr Thr Ser Ser Arg
        35                  40                  45
Ser Cys Arg Trp Tyr Thr Thr Thr Lys Arg Gln Thr His Ile Pro Arg
    50                  55                  60
Thr Met Ser Ser Val Arg Leu Ala Gly His Ile Phe Phe Gln Ile Glu
65                  70                  75                  80
Val Ile Phe Glu Lys Gln Leu Leu Ile Gly Ile His Trp Leu Ala Glu
                85                  90                  95
Gly Glu Phe His Val Asp Leu Tyr Thr Leu Pro Asp Asn Leu Ile Lys
            100                 105                 110
Met Leu Trp Asp Phe Thr Gln Glu Lys Gly Ala Leu
        115                 120
```

<210> 38609
<211> 240
<212> PRT
<213> A.fumigatus

<400> 38609

```
Met His Ile Phe Phe Ala Glu Val Ala Arg Asp Lys Leu Phe Val Trp
1               5                   10                  15
Lys Val Arg Glu Thr Tyr Arg Glu Arg Leu Pro Leu Ala Ile Ala Met
            20                  25                  30
Pro Cys Glu Pro Val Tyr Pro Ala Gly Ile Asp Ala Cys Phe Gly Val
        35                  40                  45
Arg Ile Pro Arg Gly Lys Glu Val Thr Cys Gly Pro Arg His Pro Ala
    50                  55                  60
Gly Leu Asp Ala Pro Tyr Gly Val Arg Thr Pro Arg Gly Thr Glu Ala
65                  70                  75                  80
Thr Cys Gly Pro Arg His Pro Ala Gly Phe Asp Ala Pro Tyr Gly Val
                85                  90                  95
Arg Thr Pro Arg Gly Arg Glu Ala Thr Cys Gly Pro Arg His Pro Ala
            100                 105                 110
Gly Phe Asp Ala Pro Tyr Gly Val Arg Thr Pro Arg Gly Thr Asp Ala
        115                 120                 125
Thr Cys Gly Pro Val Tyr Pro Ala Gly Val Asp Ala Pro Tyr Gly Val
    130                 135                 140
Lys Thr Pro Arg Gly Thr Glu Ala Thr Cys Gly Pro Gly Cys Pro Ala
145                 150                 155                 160
Gly Val Asn His Pro Trp Glu Asp Thr Cys Tyr Trp Glu Glu Arg Leu
                165                 170                 175
Ile Gly Ala Arg Leu Gln Met Val Arg Ala Arg Leu Ile Trp Val Pro
            180                 185                 190
Arg His Phe Arg Arg Ala Phe Arg Ser Arg Leu Tyr Arg Arg Arg Trp
        195                 200                 205
Thr Phe Ser Pro Thr Val Ile Ala Leu His Leu Gln Ile Leu Ser Thr
    210                 215                 220
Ser Phe Ser Glu Glu Thr Pro Thr Lys Phe Phe Arg Gly Ser Val Lys
225                 230                 235                 240
```

<210> 38610
<211> 239
<212> PRT
<213> A.fumigatus

<400> 38610

```
Ser Gly Lys Asn Leu Gln Met Gln Gly Asp Asn Gly Gly Ala Glu Gly
1               5                  10                  15
Pro Pro Thr Pro Ile Lys Ser Ala Ala Lys Gly Ala Pro Lys Met Ala
            20                  25                  30
Trp His Pro Tyr Gln Thr Gly Pro Asp His Leu Glu Ala Ser Thr Tyr
        35                  40                  45
Glu Pro Leu Leu Pro Ile Thr Ser Ile Phe Pro Gly Met Ile Asp Ser
    50                  55                  60
Ser Trp Thr Pro Arg Ser Ala Arg Ser Phe Ser Ser Thr Trp Gly Leu
65                  70                  75                  80
His Ser Val Gly Ser Ile Asp Ser Ser Trp Ile His Arg Ser Ala Arg
                85                  90                  95
Ser Ile Cys Ser Thr Arg Gly Pro His Ser Val Gly Ser Ile Glu Ser
            100                 105                 110
Ser Trp Met Pro Arg Ser Ala Arg Ser Phe Ser Ser Thr Arg Gly Pro
        115                 120                 125
His Ser Val Gly Ser Ile Glu Ser Ser Trp Met Pro Arg Ser Ala Arg
    130                 135                 140
Ser Phe Cys Ser Thr Trp Gly Pro His Ser Val Gly Ser Ile Glu Ser
145                 150                 155                 160
Ser Trp Met Pro Arg Ser Ala Arg Tyr Phe Phe Ser Thr Arg Asp Pro
                165                 170                 175
His Ser Glu Ala Ser Ile Asn Ser Ser Trp Ile His Arg Phe Ala Arg
            180                 185                 190
His Cys Tyr Cys Lys Arg Lys Ser Leu Pro Val Ser Leu Ser His Leu
        195                 200                 205
Pro Asp Lys Gln Phe Ile Pro Cys Tyr Phe Ser Glu Glu Tyr Val His
    210                 215                 220
Ser Asn Ile Pro Phe Asp Ser Glu Asp Ser Met Val Ser Glu Pro
225                 230                 235

<210> 38611
<211> 77
<212> PRT
<213> A.fumigatus

<400> 38611
Gly Asn Thr Phe Asp Ser His Met His Ser Ile Gly Val Gly Val Pro
1               5                  10                  15
Asn Phe Gly Thr Leu His Thr Lys Ser Ser Gly Tyr Ala Thr Phe Phe
            20                  25                  30
Pro Leu Leu Leu Cys Thr Ile Tyr Ile Gln Asn Glu His Asp Lys Gln
        35                  40                  45
Gly Tyr Phe Met Ala Pro Leu Ile Ile Ala Glu Leu Ser Lys His Leu
    50                  55                  60
Ser Phe Ser Phe His Val Lys His Arg Thr Leu Glu Gln
65                  70                  75

<210> 38612
<211> 144
<212> PRT
<213> A.fumigatus

<400> 38612
Lys Leu Asp Gln Pro Arg Lys Tyr Cys Thr Arg Ala Asn Gln Phe Ile
1               5                  10                  15
```

Val Val Gln Arg Val Phe Tyr Asn Asp Lys Glu Lys Lys Val Ile Ser
20 25 30
Val Val Tyr Leu Gly Ser Gly Leu Glu Gly Trp Pro Thr Val Val His
35 40 45
Gly Gly Val Leu Ala Thr Val Leu Asp Glu Asn Leu Gly Arg Ala Ala
50 55 60
Ile Arg His Phe Pro Ala Arg Thr Gly Val Thr Ala Asn Leu Glu Ile
65 70 75 80
Asn Tyr Arg Ala Pro Val Tyr Ser Gly Asn Phe Tyr Thr Phe His Ser
85 90 95
Gln Val Asp Pro Glu Arg Ser Thr Glu Arg Lys Ala Phe Val Thr Gly
100 105 110
Glu Ile Arg Asp Pro Val Gly Arg Val Cys Ala Gln Ala Ser Ala Ile
115 120 125
Phe Val Val Pro Lys Gly Phe Lys Leu Arg Glu Ile Gly Glu Arg Phe
130 135 140

<210> 38613
<211> 84
<212> PRT
<213> A.fumigatus

<400> 38613
Leu Cys Leu Tyr Ser Thr Leu Ile His Phe Ile Met Gln Val Leu Ala
1 5 10 15
Asn Leu Leu Ala Leu Ala Gly Val Cys Pro Phe Val Gly Ser Leu Ser
20 25 30
Asp Leu Ile Gly Arg Arg Tyr Val Ala Ile Ile Gly Ala Ser Leu Ile
35 40 45
Cys Leu Gly Met Ile Val Thr Ser Thr Ala His Thr Met Asn Ile Phe
50 55 60
Ile Gly Met Ser Lys Cys Thr Thr Tyr Leu Ala Lys Gly Thr His Ala
65 70 75 80
Asn Lys Glu Asp

<210> 38614
<211> 206
<212> PRT
<213> A.fumigatus

<400> 38614
Arg Ser Ala His Gln Ala Ala Ala Gln Trp Gln Ser Pro Val Lys Thr
1 5 10 15
Ile Ser Thr Ser Ser Gly Glu Ser Ser Ser Ser Leu Ala Trp Val Ser
20 25 30
Ala Ala Ser Ser Ser Pro Leu Pro Ser Ser Pro Gln Ser Phe Ala Arg
35 40 45
Thr Tyr Val Pro Thr Ala Ser Ile Phe Leu Leu Thr Arg Lys Ala Asn
50 55 60
Arg Leu Val His Gln Asp Leu Ile Ala Thr Ile Ser Ala Leu Thr Leu
65 70 75 80
Ser Ile Arg Val Val Gly Gly Ser Ile Gly Tyr Thr Ile Tyr Tyr Asn
85 90 95
Ile Phe Ile Ser Lys Phe Val Pro Asn Ala Lys His Phe Ile Gly Gly
100 105 110

```
Val Met Gly Thr Lys Leu Asn Ile Thr Asn Pro Ala Tyr Ile Gly Glu
        115                 120                 125
Ala Ile Glu Leu Thr Gly Ala Ser Leu Leu Glu Glu Leu Lys Thr Ile
    130                 135                 140
Pro Gly Ile Ala Gly Ser Glu Ala Ala Tyr Asn Ala Val Val Ala Ala
145                 150                 155                 160
Gly Gln Leu Ala Tyr Ala Glu Ser Tyr Lys Trp Val Tyr Tyr Val Ser
                165                 170                 175
Ile Ala Phe Gly Gly Ile Ser Ile Leu Ala Ala Cys Phe Leu Gly Ser
            180                 185                 190
Ile Ser Gln Tyr Met Asp Asp His Val Ala Val Val Met His
        195                 200                 205
```

<210> 38615
<211> 378
<212> PRT
<213> A.fumigatus

<400> 38615

```
Thr Phe Pro Pro Leu Met Phe Leu Asn Ala Leu Arg Ser Val Phe Pro
1               5                   10                  15
Gln Phe Ala Gln Lys Asp Arg Asn Gly His Gly Tyr Ala Gln Gln Asp
            20                  25                  30
Ala Glu Glu Ala Trp Ser Gln Ile Val Thr Gln Leu Arg Ser Lys Leu
        35                  40                  45
Val Ile Lys Glu Gly Glu Gly Asp Ser Ala Thr Glu Val Ser Phe Val
    50                  55                  60
Asp Lys Phe Leu Ala Gly Arg Phe Glu Ser Val Thr Glu Cys Asp Asp
65                  70                  75                  80
Pro Ala Ala Lys Ala Ala Gly Glu Glu Ala Thr Lys Ser Ser Asp Ile
                85                  90                  95
Phe Phe Lys Leu Asp Cys His Ile Gly Lys Glu Thr Asn His Leu His
            100                 105                 110
Asp Gly Ile Leu Ala Gly Leu Glu Glu Lys Ile Glu Lys Arg Ser Pro
        115                 120                 125
Thr Leu Asp Arg Asp Ala Val Tyr Thr Lys Arg Ser Arg Ile Ala Arg
    130                 135                 140
Leu Pro Lys Tyr Leu Thr Val His Phe Val Arg Phe Phe Trp Lys Arg
145                 150                 155                 160
Glu Thr Gln Lys Lys Ala Lys Ile Met Arg Lys Val Thr Phe Pro Ala
                165                 170                 175
Glu Leu Asp Val Val Glu Phe Cys Thr Glu Glu Leu Lys Lys Gln Leu
            180                 185                 190
Ile Pro Ile Arg Asp Lys Val Arg Asp Ile Arg Lys Glu Glu Val Asp
        195                 200                 205
Ile Glu Arg Ala Arg Lys Arg Gln Lys Leu Ala His Gln Arg Glu Glu
    210                 215                 220
Glu Leu Lys Arg Ala Ala Glu Ser Asp Ala Gly Leu Glu Pro Leu Gln
225                 230                 235                 240
Lys Lys Ala Thr Glu Gly Gln Lys Glu Ala Thr Lys Ser Gly Glu Gln
                245                 250                 255
Asp Gly Asp Thr Ala Met Thr Asp Val Phe Lys Ser Asp Ala Glu Tyr
            260                 265                 270
Glu Ala Glu Lys Tyr Ala Ser Ile Leu Ala Ala Lys Lys Glu Leu Ala
        275                 280                 285
Ala Leu Ile Asp Pro Lys Leu Ala Ser Asp Ala Gly Thr Asn Lys Ser
```

```
    290                 295                 300
Gly Leu Tyr Glu Leu Arg Ala Val Ile Thr His Gln Gly Ala Ser Ala
305                 310                 315                 320
Asp Ser Gly His Tyr Thr Ser Tyr Val Lys Lys Gln Pro Asp Gly Lys
                325                 330                 335
Gly Val Glu Asp Gly Lys Trp Trp Trp Phe Asn Asp Glu Lys Val Thr
            340                 345                 350
Glu Val Asp Gly Glu Lys Ile Glu Thr Leu Ala Gly Gly Gly Glu Tyr
        355                 360                 365
Ile Ala Cys Phe Cys Leu Leu Leu Glu Leu
    370                 375
```

<210> 38616
<211> 83
<212> PRT
<213> A.fumigatus

<400> 38616

```
Leu Leu Glu Trp Ser Thr Val Thr Asn Glu Met Asn Arg Phe Ile Phe
1               5                   10                  15
Ala Gly Asp Trp Leu Ala Pro Ile Trp Ser His Ile Arg Phe Pro Pro
            20                  25                  30
Pro Ser Gln Ser Ser Ser Leu Asn Ser Val Lys Val Asn Met Glu Leu
        35                  40                  45
Val Ser Pro Pro Ile Ala Arg Ala Met Pro Thr Gly Pro Ile Pro Arg
    50                  55                  60
Ser Leu His Ser Ser Asp Glu Pro Ser Trp Pro Arg Glu Pro Leu Ala
65                  70                  75                  80
Gly Asn Tyr
```

<210> 38617
<211> 153
<212> PRT
<213> A.fumigatus

<400> 38617

```
Gln Arg Arg Leu Ala Gly Met Ala Ile Ala Gly Ala Gly Ala Gly Val
1               5                   10                  15
Asn Glu Leu Thr Ala Leu Ala Ala Thr Ser Glu Met Ala Pro Thr Ser
            20                  25                  30
Gln Arg Gly Lys Tyr Val Ala Ile Leu Ile Phe Thr Ile Val Pro Phe
        35                  40                  45
Cys Pro Ser Val Leu Trp Ala Gln Leu Ile Ala Ala His Ser Gly Trp
    50                  55                  60
Arg Tyr Val Gly Ala Phe Cys Gly Ala Trp Gly Gly Phe Gly Leu Leu
65                  70                  75                  80
Ala Thr Val Phe Phe Tyr Phe Pro Pro Pro Arg Val Asn Ser Gln Gly
                85                  90                  95
Leu Ser Arg Lys Glu Val Ile Arg Arg Ile Asp Phe Val Gly Gly Leu
            100                 105                 110
Leu Ser Ile Thr Gly Leu Ile Leu Phe Leu Ala Gly Met Gln Trp Gly
        115                 120                 125
Gly Tyr Gln Val Arg Ile Val Phe Tyr Met Gln Ile Ser Thr Pro Pro
    130                 135                 140
Asp Gln Gln Leu Asn Pro Val Ile Thr
```

145 150

<210> 38618
<211> 205
<212> PRT
<213> A.fumigatus

<400> 38618
Tyr Pro Trp Thr Thr Ala His Val Leu Ala Pro Leu Ile Leu Gly Phe
1 5 10 15
Val Ile Leu Val Ala Phe Ala Ala Trp Glu Ile Tyr Gly Ala Lys Tyr
20 25 30
Pro Ile Phe Pro Thr Arg Leu Lys Gln Glu Pro Arg Thr Leu Gly Leu
35 40 45
Thr Leu Val Ile Thr Phe Ile Ser Gly Ala Asn Phe Phe Ser Val Ile
50 55 60
Met Phe Trp Pro Thr Gln Ser Phe Asn Val Tyr Gly His Asp Pro Val
65 70 75 80
Gln Val Gly Leu Arg Ser Leu Pro Val Gly Phe Gly Ile Met Ala Gly
85 90 95
Ala Cys Ile Val Leu Trp Leu Leu Ser Val Leu Arg Gly His Asn Lys
100 105 110
Glu Leu Leu Ile Ile Ser Ser Val Leu Met Thr Ala Gly Gln Leu Cys
115 120 125
Ser Pro Thr Pro Gln His Leu Leu Glu Ile Val Ala Phe Leu Thr Leu
130 135 140
Cys Ser Ser Gly Cys Gly Ala Met Ala Val Ala Arg Gln Asp Asn Leu
145 150 155 160
Tyr Gln Leu Trp Gly Ile Leu Val Leu Ala Gly Leu Gly Ile Gly Gly
165 170 175
Ile Val Val Pro Ala Ser Ile Ile Thr Thr Ile Ile Cys Pro Asp Val
180 185 190
Cys Ser Asn Cys Leu Tyr Leu Ser Thr Tyr Ala Glu Gly
195 200 205

<210> 38619
<211> 60
<212> PRT
<213> A.fumigatus

<400> 38619
Ser Arg Ser Asn Ala Tyr Arg Asp Cys Phe Leu Lys Tyr Leu Trp Ile
1 5 10 15
Asp Lys Asp Arg Val Trp Gly Val Tyr Gly Val Tyr Leu Ala Gly Ala
20 25 30
Ser Phe Lys Gly Gln Gly Asp Cys Thr Gln Ala Phe Arg Val Leu Ser
35 40 45
Phe Gln Gly Arg Arg Ser Leu Ile Gln Trp Ser Ser
50 55 60

<210> 38620
<211> 228
<212> PRT
<213> A.fumigatus

<400> 38620

```
Pro Val Ser Gly Arg Ser Ser Ser Leu Ser Ile Leu Ser Arg Glu Gly
1               5                  10                  15
Ile Glu Trp Ile Lys His Lys Thr Gly Glu Val Asp Phe Leu Arg Leu
            20                  25                  30
Leu Val Ser Asp Thr Lys His Asp Ser Pro Trp Asp Tyr Trp Arg Pro
        35                  40                  45
Asp Val Phe His Asp Val Phe Ala Ser Lys Val Phe Lys Pro Leu Pro
    50                  55                  60
Pro Arg Ala Glu Val Phe Ser Leu Leu Gly Asp Tyr Phe Arg Thr Ile
65                  70                  75                  80
Asn Arg Leu Phe Pro Leu Tyr His Glu Ala Tyr Phe Met Glu Met Val
                85                  90                  95
Glu Trp Gln Tyr Thr Gln Gln Thr Cys Asp Asp Ala Ala Arg Trp Ala
            100                 105                 110
Ser Ile Asn Ile Ile Leu Ala Leu Ala Tyr Glu Tyr Arg Tyr Ser Asn
        115                 120                 125
Ser Leu Lys Pro Glu Lys Asp Lys Glu Arg Ala Trp Leu Tyr Tyr Lys
    130                 135                 140
Asn Ala Ile Ser Val Leu Thr Glu Leu Thr Leu Arg Arg Thr Asp Met
145                 150                 155                 160
Leu Ser Val Gln Ala Leu Leu Gly Met Ala Leu Phe Leu Arg Gly Asn
                165                 170                 175
Ser Gly Thr Gln Ser Ala Met Pro Leu Ile Thr Ala Ala Ile Arg Thr
            180                 185                 190
Cys His Arg Leu Gly Leu His Arg Asp Thr Pro Arg Pro His Leu Ala
        195                 200                 205
Pro Ala Glu Gln Glu Gln Arg Lys Arg Val Phe Trp Ile Ala Phe Ile
    210                 215                 220
Leu Asp Gln Arg
225
```

<210> 38621
<211> 186
<212> PRT
<213> A.fumigatus

<400> 38621

```
Cys Ser Thr Cys Ile Arg Thr Gly Asn Ala Pro Thr Gln His Pro Asp
1               5                  10                  15
Asp Phe Asp Val Glu Ile Pro Ala Val Asp Pro Glu Asn Asp Leu Leu
            20                  25                  30
Leu Ser Asp Asp Lys Pro Phe Phe Gln Gln Leu Cys Arg Ile Thr Ile
        35                  40                  45
Ile Lys Ser Arg Ile Tyr Thr Glu Leu Tyr Ser Glu Lys Ala Leu Gln
    50                  55                  60
Asn Lys Thr Ala Ala Glu Val Ile Lys Ile Val Lys Lys Leu His Ala
65                  70                  75                  80
Glu Leu Gly Glu Trp Arg Ala Ala Asn Thr Phe Asp Asp Gln Leu Lys
                85                  90                  95
Gln Gly Ala Ala Gly Glu Asp Phe Leu Arg Gly Phe Ala Ser Ala Gly
            100                 105                 110
Met Gln Phe Val Tyr Phe Asn Ser Leu Ile Leu Ile His Arg Met Val
        115                 120                 125
Leu Val Ile Ala Phe Ile Tyr Arg Gln Arg Leu Ala Asn Gly Gly Pro
    130                 135                 140
Ala Pro Asp Asp Ala Asn Leu Ile Leu Arg Glu Ser Ser Ser Ser Ile
```

```
145                 150                 155                 160
Ala Phe Cys Ser Glu Ala Ala Arg Asp Thr Leu Arg Leu Val Asn Asn
                165                 170                 175
Leu Pro Trp Gly Asp Ile Ala Trp Ile Trp
            180                 185
```

<210> 38622
<211> 315
<212> PRT
<213> A.fumigatus

<400> 38622

```
Gly Asn Asp Ser Ile Arg His Arg Phe Thr Phe Tyr Phe Asp Ala His
1               5                   10                  15
Tyr Ser His Arg Ser Leu Leu Tyr Tyr Val Phe Leu Ala Val Met Thr
            20                  25                  30
Ile Phe Ile Asn Ile Leu Arg Asp Ser Arg Tyr Pro Asn Val Arg Glu
        35                  40                  45
Asp Ile Gln Ser Leu Asn Met Ala Ser Thr Phe Phe Ala Thr Leu Ile
    50                  55                  60
Pro Ser Asp Gly Pro Ser Asn Tyr Ala Arg Phe Met Thr Gln Met Ser
65                  70                  75                  80
Ala Asn Phe Glu Arg Ile Ala Arg Ser Val Val Glu Arg Asp Gln Lys
                85                  90                  95
Ala Thr Lys Leu Ser Gln Arg Ala Thr Ser Arg Thr Ser Met Thr Arg
            100                 105                 110
Ala Glu Gly His Asp Leu Ala Ser Glu Glu Gln Arg Ser Gln Arg Ser
        115                 120                 125
Gln Pro Ala Glu Ala Pro Lys Ser Ser Pro Ser Ser Ser Pro Val His
    130                 135                 140
Ser Pro Ser Ile Ile Asp Ile Pro His Leu Pro Gly Leu Pro Arg Ile
145                 150                 155                 160
Asn Ser Ser Gly Tyr Val Val Pro Asp Ser Ser Pro Ser Ala Ser Asp
                165                 170                 175
Asp Leu Gln Pro Ser Asn Ser Tyr Pro Pro Ile Glu Asn Ala Cys Gln
            180                 185                 190
Asn Gly Ala Ala Ser Ser Glu Ser Ser Ala Ser Pro Gln Val Phe Asn
        195                 200                 205
Asn Pro Thr Tyr Pro Phe Asp Ala Phe Phe Pro Met Pro Ile Ala Asn
    210                 215                 220
His Ile Pro Gln Ser Glu Phe Trp Gln Thr Ile Pro Ile Ala Asp Trp
225                 230                 235                 240
Gly Pro Pro Gly Ser Asn Gln Phe Ser Asp Asp Pro Tyr Met Gln Gly
                245                 250                 255
Phe Phe Gln Gly Arg Ala Pro Ser Phe Ala Ala Pro Thr Thr Thr Ala
            260                 265                 270
Thr Pro Ser Asn Met Pro Ser Val Pro Pro Asp Leu Gly Phe Ser Thr
        275                 280                 285
Glu Asn Pro Gly Gln Phe Val Asp Asp Gln Gly Pro Ser Gln Ser Ile
    290                 295                 300
Trp Pro Gly Gly Gly Phe Gly Asn Pro Phe Ser
305                 310                 315
```

<210> 38623
<211> 167
<212> PRT

<213> A.fumigatus

<400> 38623

```
Glu Trp Gly Ile Leu Ile Met Tyr Leu Val Ser Tyr Gly Cys Ser Glu
1               5                  10                  15
Gly Val His Ser Pro Ala Ala Phe Arg Ile Ala Trp Gly Val Gln Ala
            20                  25                  30
Val Pro Gly Leu Ile Leu Ala Val Ala Leu Leu Phe Phe Pro Glu Ser
        35                  40                  45
Pro Arg Trp Leu Ala Ser Lys Glu Arg Trp Glu Glu Ser Leu Asp Thr
    50                  55                  60
Leu Ala Leu Ile His Gly His Gly Asp Arg Asn His Pro Glu Val Gln
65                  70                  75                  80
Val Glu Trp Glu Glu Val Gln Glu Pro Val Arg Ile Ala Arg Glu Ala
                85                  90                  95
Lys Asp Val Ser Leu Phe Ala Leu Leu Gly Pro Arg Val Trp Lys Arg
            100                 105                 110
Thr Met Cys Gly Val Ser Val Gln Val Trp Gln Gln Leu Leu Gly Gly
        115                 120                 125
Asn Val Ala Met Tyr Tyr Val Val Tyr Ile Phe Gln Met Ala Asn Met
    130                 135                 140
Val Asn Leu Phe Leu Leu Leu Pro Asp Val Tyr Leu Gly Asp Arg Leu
145                 150                 155                 160
Ala Asp Met Phe Leu Ala Arg
                165
```

<210> 38624
<211> 127
<212> PRT
<213> A.fumigatus

<400> 38624

```
Ala Pro Ala Ala Trp Ile Tyr Ala Ser Glu Val Phe Pro Leu Lys Tyr
1               5                  10                  15
Arg Ala Lys Gly Val Gly Leu Ser Ala Ala Gly Asn Trp Ile Phe Asn
            20                  25                  30
Phe Ala Leu Ala Tyr Phe Val Ala Pro Ala Phe Thr Asn Ile Lys Trp
        35                  40                  45
Lys Thr Tyr Ile Ile Phe Gly Val Phe Cys Thr Val Met Thr Phe His
    50                  55                  60
Val Phe Phe Met Tyr Pro Glu Thr Ala Arg Arg Ser Leu Glu Glu Ile
65                  70                  75                  80
Asp Met Met Phe Asp Ser Lys Val Lys Ala Trp Gln Ser His Lys Val
                85                  90                  95
His Asp Lys Phe Gly Glu Glu Ile Glu Lys His Arg Gln Gln Ser Val
            100                 105                 110
Val Glu Ala Glu Lys Pro Val Glu Ser Val His Ala Glu Val Val
        115                 120                 125
```

<210> 38625
<211> 169
<212> PRT
<213> A.fumigatus

<400> 38625

```
Thr Gln His Val Glu Arg Lys His His Asp Pro Leu Val Tyr Val Pro
```

```
1               5                   10                  15
Ser Gly Trp Ser Leu Asp Ile Tyr Gly Lys Ile Val Arg Ser Val Val
            20                  25                  30
Leu Arg Val Arg Ala Lys Pro Leu Thr Cys Ile Ala Asn Arg Ile Ser
        35                  40                  45
Ser Asn Pro Asp Val Gln Phe Thr Ile Ile Ile Asn Pro Asp Asn Gly
    50                  55                  60
Ser Gly Pro Thr Ala Leu Pro Asp Glu Asn Phe Leu Ala Ala Val Pro
65                  70                  75                  80
Arg Leu Thr Ala Tyr Ser Asn Ala Leu Val Ile Gly Tyr Val Arg Thr
                85                  90                  95
Asp Lys Gly Thr Arg Asp Ile Ser Glu Val Lys Lys Glu Ile Asp Thr
            100                 105                 110
Tyr Glu Gly Trp Pro Ser Ala Ser Gly Asn Pro Ser Phe Ala Val His
        115                 120                 125
Gly Thr Phe Leu Asp Glu Ala Pro Ser Glu Tyr Asp Ala Ala Ala Val
    130                 135                 140
Glu Tyr Phe Gln Gln Leu Ala Ser Ser Ile Arg Gly Ser Asn Gly Leu
145                 150                 155                 160
Gly Pro Asn Asn His Val Ser Asn Cys
                165
```

<210> 38626
<211> 174
<212> PRT
<213> A.fumigatus

<400> 38626

```
Pro Gly Asp Thr Val Leu Tyr Ser Ser Ala Ile Gln Tyr Val Ile Phe
1               5                   10                  15
Leu Val Thr Thr Gly Val Ile Leu Pro Tyr Ile Asp Arg Ile Gly Arg
            20                  25                  30
Arg Leu Leu Leu Leu Ser Gly Ser Ile Ile Cys Met Ala Leu His Tyr
        35                  40                  45
Ala Ile Ala Gly Ile Met Ala Thr Tyr Gly Asn Pro Val Asp Glu Ile
    50                  55                  60
Asp Gly Asn Lys Asn Leu Arg Trp Glu Ile Lys Gly Ala Pro Gly Lys
65                  70                  75                  80
Gly Val Ile Ala Cys Ser Tyr Ile Phe Val Gly Ile Tyr Gly Leu Thr
                85                  90                  95
Trp Val Ser Ala Ser Ile Leu Cys Pro Glu Cys Arg Thr Asn Lys Ala
            100                 105                 110
Pro Arg Pro Pro Leu Pro Gly Ser Thr Pro Pro Lys Ser Ser Leu Ser
        115                 120                 125
Asn Thr Ala Gln Arg Ala Ser Val Ser Pro Gln Pro Ala Thr Gly Ser
    130                 135                 140
Ser Thr Leu Arg Ser Pro Ile Ser Trp Arg Pro Pro Ser Pro Thr Ser
145                 150                 155                 160
Ser Gly Arg Arg Thr Ser Ser Leu Gly Phe Ser Ala Arg Ser
                165                 170
```

<210> 38627
<211> 101
<212> PRT
<213> A.fumigatus

<400> 38627
Val Val Met Asn Pro Gly Thr Val Pro Asp Ala Ala Tyr Leu Gly Ile
1 5 10 15
Pro Asp Thr Thr Val Ile Phe Glu Ser Pro Tyr Ser Glu Phe Val Arg
20 25 30
Ala Val Ser Ser Asp Gln Phe Gln Gly Ile Lys Gly Gln Asp Leu Ser
35 40 45
Arg Phe Ala Ser Met Val Tyr Asp Val Pro Asp Asn Val Asp Leu Glu
50 55 60
Asn Leu Leu Ser Gln Leu Arg Ala Ile Ser Ser Gln Thr Tyr Leu Ser
65 70 75 80
Asn Leu Asn Thr Tyr Gln Ala Phe Asp Ser Val Trp Thr Lys Val Val
85 90 95
Ser Leu Leu Ser Ala
100

<210> 38628
<211> 95
<212> PRT
<213> A.fumigatus

<400> 38628
Val Tyr Gly Ser Phe Pro Leu Leu Met Val Leu Ser Gly Leu Thr Gly
1 5 10 15
Leu Asp Ile Glu Lys Pro Asp Glu Ser Leu Arg Arg Val Ser Leu Pro
20 25 30
Thr Leu His Val His Gly Leu Lys Asp Pro Phe Leu Met Leu Gly Arg
35 40 45
Gln Gln Phe Gln Gly Tyr Tyr Asn Pro Asn Ala Ala Thr Leu Tyr Glu
50 55 60
Val Asp Tyr His His Ala Met Pro Trp Ala Arg His Glu Ala Lys Gln
65 70 75 80
Leu Ala Asp His Ile Arg Thr Ile Tyr Lys Asn Ser Ala Lys Gln
85 90 95

<210> 38629
<211> 70
<212> PRT
<213> A.fumigatus

<400> 38629
Leu Ala Asp Val Leu Asp His Val Leu Glu Cys Ser Ile Val His Gln
1 5 10 15
Asn Val Asn Ser Ser Gln Thr Pro Lys Gly Asp Val Asp Tyr Phe Leu
20 25 30
Ala Val Leu Pro Phe Ser Asp Ile Tyr Cys Gln Ala Val Thr Phe Phe
35 40 45
Ser Gly Phe Leu His Ser Ser Leu Cys Phe Leu Ser Ile Tyr Leu Phe
50 55 60
Leu Trp Gln Val Tyr Asn
65 70

<210> 38630
<211> 701
<212> PRT
<213> A.fumigatus

<400> 38630

```
Thr Thr Ala Arg Ala Asp Ala Leu Ser Asp Ile Ser Ala Met Asp Gln
1               5                  10                  15
Thr Val Met Gln Asp Gln Ser Glu Thr Ile Ile Gln Cys Pro Ala Ser
            20                  25                  30
Arg Ser Thr Arg Asp Gly Tyr Asn Met Pro Ile Glu Ser Ala Leu Ser
        35                  40                  45
Thr Pro Trp Val Phe Leu Ser Pro Thr Thr Ser Leu His Ala Asn Thr
    50                  55                  60
Val Asp Cys Ala Lys Tyr Phe Leu Asp Ser Leu Ala Leu Ser Val Ser
65                  70                  75                  80
Asn Ala Gln Leu Ala Arg Gln Arg Val Met Arg Lys Arg Lys Arg Ser
                85                  90                  95
Asp Tyr Glu Gln Glu Thr Leu His His Val Leu Gln Leu Lys Glu Leu
            100                 105                 110
Phe Val Gln Gly Phe Thr Ser Asp Gln Ile Trp Glu Gln Ala Thr Arg
        115                 120                 125
Ile Leu Asp Ser Ala Lys Gln Glu Ile Glu Gln Asp Ser Ala Leu Ile
    130                 135                 140
Ala Gln His Val Glu Pro Ala Phe Leu Asp Ala Arg Ala Ser Pro Phe
145                 150                 155                 160
Leu Ser Gln Glu Ala Asn Ser Glu Asp Ile Ser Asn Phe Ser Asp Ile
                165                 170                 175
Ser Asp Ser Ala Ala Asp Arg Ser Asp Arg Asp Ser Ala Ser Asp Asp
            180                 185                 190
Glu Arg Glu Asp Met Gly Ser Val Pro Glu Ser Pro Ser Met Ala Glu
        195                 200                 205
Gly Arg Ser Asp Gly Asp Ser Arg Thr Asp Val Glu Glu Ser Asp Asn
    210                 215                 220
Asp Asn His Asn Ser Arg Gly Thr Tyr Val Gln Asp Pro Phe Gly Leu
225                 230                 235                 240
Asn Asp Gly Phe Phe Ser Ile Asp Glu Phe Asn Lys Gln Ser Glu Phe
                245                 250                 255
Leu Glu Arg Gln Asp Ala Lys Gly Glu Ile Asp Asp Asp Leu Glu Ser
            260                 265                 270
Asp Glu Glu Glu Ile Asp Trp His Val Asp Pro Leu Ala Gly Gly Val
        275                 280                 285
Ser Val Pro Ser Gln Thr Thr Arg Pro Thr Ala Gln Arg Ser Lys Arg
    290                 295                 300
Ser Phe Glu Asn Gly Ser Glu Ser Ser Ser Asp Glu Glu Gly Pro Thr
305                 310                 315                 320
Phe Asp Asn Val Ala Ile Glu Asn Asp Ile Asp Ser Glu Asp Asp Asp
                325                 330                 335
Ala Tyr Ala Ile Ser Ala Asp Thr Thr Asn Trp Met Asn Thr Ser Asp
            340                 345                 350
Ile Lys Tyr Ser Asp Phe Phe Glu Pro Pro Pro Arg Arg Ala Thr Ser
        355                 360                 365
Thr Lys Thr Arg Pro Leu Pro Lys Thr Gln Pro His Gly Ala Pro Val
    370                 375                 380
Glu Thr Asp Ile Asp Arg Ala Ile Ala Asp Val Arg Arg Asp Leu Leu
385                 390                 395                 400
Glu Asp Asp Glu Ser Leu Asp Gly Asn Asp Ser Ser Asp Asn Glu Leu
                405                 410                 415
Ala Gly Ser Lys Gln Gln His Ser Ala His Glu Lys Gln Arg Ala Arg
            420                 425                 430
```

```
Ile Ala Asp Glu Ile Arg Arg Leu Glu Ala Ala Asn Val Ala Lys Lys
        435                 440                 445
Asp Trp Met Leu Ala Gly Glu Ala Arg Gly Ala Glu Arg Pro Met Asn
    450                 455                 460
Ser Leu Ile Glu Glu Asp Leu Asp Phe Glu Arg Val Gly Lys Pro Val
465                 470                 475                 480
Pro Val Val Thr Thr Glu Leu Ser Gly Tyr Ile Glu Glu Leu Val Lys
                485                 490                 495
Arg Arg Ile Leu Ala Lys Glu Phe Asp Glu Val Ile Arg Arg Arg Pro
            500                 505                 510
Gly Ile Pro Glu Ala Gln Thr Ala Lys Lys Val Arg Phe Glu Leu Glu
        515                 520                 525
Asp Thr Lys Pro Gln Gln Ser Leu Ala Glu Leu Phe Glu Ser Asp His
    530                 535                 540
Leu Arg Ala Thr Asp Pro Asn Tyr Val Asp Pro Lys Asn His Lys Leu
545                 550                 555                 560
Leu Arg Glu His Thr Glu Ile Ser Asn Leu Trp Arg Glu Ile Ser Asp
                565                 570                 575
Arg Leu Asp Thr Leu Ser Asn Trp His Tyr Arg Pro Lys Ala Pro Gln
            580                 585                 590
Ala Asn Ile Asn Val Ile Thr Asp Val Pro Thr Ile Met Met Glu Asp
        595                 600                 605
Ala Gln Pro Ala Ala Ser Ser Ala Val Gly Gly Ser Ala Thr Leu Ala
    610                 615                 620
Pro Gln Glu Ile Tyr Ala Pro Gly Asp Asn Gly Lys Val Ala Gly Glu
625                 630                 635                 640
Val Thr Leu Lys Ser Gly Glu Ser Ile Ala Lys Asp Glu Met Thr Arg
                645                 650                 655
Asp Glu Lys Ser Lys Leu Arg Arg Arg Gln Lys Lys Gln Arg Lys Ser
            660                 665                 670
Asp Ser Asp Pro Ala Lys Gln Gln Ser Gly Thr Ala Ala Glu Lys Gln
        675                 680                 685
Gln Ile Val Leu Lys Arg Gly Arg Arg Ala Val Ser Arg
    690                 695                 700
```

<210> 38631
<211> 189
<212> PRT
<213> A.fumigatus

<400> 38631

```
Leu His Leu Glu Arg Phe Glu Arg Arg Cys Pro Cys Arg Ala Arg Lys
1               5                   10                  15
Arg Lys Arg Val Gln Cys Asn Met Ser Cys Ser Cys Pro Ala Ser Phe
            20                  25                  30
Thr Cys Met His Thr Lys Cys Leu Val Val Leu Thr Leu Ser Cys Ser
        35                  40                  45
Thr Thr Leu Asp Gln Val Ala Asn Trp Ala Arg Gln Ser Ser Leu Trp
    50                  55                  60
Pro Met Thr Phe Gly Leu Ala Cys Cys Ala Val Glu Met Met His Leu
65                  70                  75                  80
Ser Thr Pro Arg Tyr Asp Gln Asp Arg Leu Gly Ile Ile Phe Arg Ala
                85                  90                  95
Ser Pro Arg Gln Ser Asp Val Met Ile Val Ala Gly Thr Leu Thr Asn
            100                 105                 110
Lys Met Ala Pro Ala Leu Arg Gln Val Tyr Asp Gln Met Pro Asp Pro
```

```
        115                 120                 125
Arg Trp Val Ile Ser Met Gly Ser Cys Ala Asn Gly Gly Gly Tyr Tyr
    130                 135                 140
His Tyr Ser Tyr Ser Val Val Arg Gly Cys Asp Arg Ile Val Pro Val
145                 150                 155                 160
Asp Val Tyr Val Pro Gly Cys Ser Ser Ile Phe Pro Leu Asp Ser Gln
                165                 170                 175
Leu Arg Phe Phe Trp Cys Glu Ser Tyr Ala Asp Gly Ile
            180                 185
```

<210> 38632
<211> 192
<212> PRT
<213> A.fumigatus

```
<400> 38632
Val Pro Ile Phe Glu Ser Asn Leu Ala Ile Leu Ile Ser Thr Ala Gly
1               5                   10                  15
His Arg Ile Pro Ile Gln His Gln Lys Lys Pro Gly Leu Gln Ala Glu
            20                  25                  30
Leu Glu Asp Pro Lys Pro Ala Ser Thr Arg Ile Pro Thr Asp Asp Tyr
        35                  40                  45
Gly Tyr Gln Thr Tyr Lys Ala Ala Gly Lys Leu Ala Gly Lys Arg Ala
    50                  55                  60
Ile Ile Thr Gly Gly Asp Ser Gly Ile Gly Arg Ala Val Ala Ile Leu
65                  70                  75                  80
Phe Ala Met Glu Gly Ala Ser Ser Leu Ile Val Tyr Leu Pro Glu Glu
                85                  90                  95
Glu Ile Asp Ala Gln Glu Thr Lys Arg Arg Val Gln Glu Thr Gly Lys
            100                 105                 110
Glu Cys His Cys Leu Ala Val Asp Ile Arg Lys Arg Glu Asn Cys Gln
        115                 120                 125
Lys Val Val Asp Val Ala Leu Arg Cys Leu Gly Gly Ile Asp Ile Leu
    130                 135                 140
Val Asn Asn Ala Ala Phe Gln Asn Met Val Gln Asp Ile Ser Glu Leu
145                 150                 155                 160
Asp Glu Tyr Ala Leu Ile Ser Gln Gln Ser Leu Leu Ser Pro Ser Ser
                165                 170                 175
Leu Pro Ala Pro Pro Gln His Thr Arg Arg Glu Ser Ser Pro Ile Ser
            180                 185                 190
```

<210> 38633
<211> 172
<212> PRT
<213> A.fumigatus

```
<400> 38633
Asp Tyr Thr Asn Ala Val Leu Pro Arg Val Glu Leu Gly Ala Gly Gly
1               5                   10                  15
Gly Leu Val Gly Leu Ala Val Ala Arg Gly Cys Asp Val Gly Pro Cys
            20                  25                  30
Pro Ile Tyr Ile Thr Asp Gln Glu Pro Met Leu His Leu Met Lys Thr
        35                  40                  45
Asn Ile Glu Leu Asn Asn Leu Ser Thr Ala Val Ala Ala Thr Val Leu
    50                  55                  60
Asn Trp Gly Glu Arg Leu Pro Asp Cys Ile Pro Thr His Pro Glu Ile
```

65 70 75 80
Val Leu Ala Ala Asp Cys Val Tyr Phe Glu Pro Ala Phe Pro Leu Leu
85 90 95
Ile Ser Thr Leu Gln Asp Leu Leu Gly Pro Glu Ser Val Cys Tyr Phe
100 105 110
Cys Phe Lys Arg Arg Arg Arg Ala Asp Leu Arg Phe Met Lys Ala Ala
115 120 125
Lys Arg Val Phe Asp Ile Lys Glu Val Arg Asp Asp Pro Glu Ala Asp
130 135 140
Thr Tyr Arg Arg Glu Asn Ile Phe Leu Tyr Ser Leu Arg Leu Arg Phe
145 150 155 160
Arg Pro Glu Asn Gly Ser Leu Arg Ala Ile Lys Glu
165 170

<210> 38634
<211> 169
<212> PRT
<213> A.fumigatus

<400> 38634
Ala Pro Leu His Tyr Gln Arg Pro His Asn Thr Arg Glu Gly Arg Ala
1 5 10 15
Leu Pro Leu Ala Asp Gln Val Asp Pro Leu Leu Arg Asp Gln Trp His
20 25 30
Arg Thr Phe Asp Thr Asn Ile His Pro Tyr Tyr Tyr Leu Ser Lys Tyr
35 40 45
Ser Leu Pro His Met Arg Ser Gly Ala Thr Ile Ile Asn Cys Ser Ser
50 55 60
Val Asn His Tyr Ile Gly Arg Gly Asp Leu Leu Asp Tyr Thr Ser Thr
65 70 75 80
Lys Gly Ala Ile Ile Ala Phe Thr Arg Gly Leu Ser Asn Gln Gln Ile
85 90 95
Gly Lys Gly Ile Arg Val Asn Cys Val Cys Pro Gly Pro Ser Met Tyr
100 105 110
Arg Tyr Arg Ile Ile Ala Lys Val Val Ser Tyr Ile Gly Ser Ser Leu
115 120 125
Asp Ser Phe Asp Pro Ile His His Gly Tyr Phe Cys Asn Gly Thr Ile
130 135 140
Gln Leu Arg Ala His Gly Val Ala Arg Ala Asn Leu Arg Glu Val Ala
145 150 155 160
Thr Cys Leu Val Phe Leu Ala Ser Ser
165

<210> 38635
<211> 106
<212> PRT
<213> A.fumigatus

<400> 38635
Cys Gly Arg Gly Ala Ser Val Glu Gly Arg Lys Ala Gly Ser His Arg
1 5 10 15
Val Ile Gly Gln Trp Leu Glu Ile Leu Ile Gly Lys Gly Trp Ile Thr
20 25 30
Asp Ala Asn Ala Arg Ser Pro Thr Ala Cys Gly Ser Pro Ala Phe Phe
35 40 45
Leu Leu Phe Leu Leu Arg Ala Glu Pro Phe Phe Leu Phe Ala Cys Leu

```
    50                  55                  60
Phe Phe Leu Val Thr Leu Ser Ser Ser Ser Gly Leu Ser Ala Glu Ala
65                  70                  75                  80
Leu Gln Tyr Phe Trp Asp Asp His Ile Ser Pro Ile Ala Phe Glu Lys
                85                  90                  95
Val Tyr Leu Thr Ser Leu Trp Lys Met Ala
            100                 105
```

<210> 38636
<211> 79
<212> PRT
<213> A.fumigatus

<400> 38636

```
Ser Ser Leu Cys Ala Arg Lys Leu Pro Leu Tyr Cys Glu Ser His Ser
1               5                   10                  15
Lys Leu Ser Cys Ala Gly Gly Glu Cys Arg Cys Ser Ser Gly Leu Gly
            20                  25                  30
Phe Gly Leu Thr Gly Leu Gly Leu Gly Thr Asn Pro Ile His Lys Leu
        35                  40                  45
Ser Tyr Leu Phe Ile Tyr Ala Arg Ser Ser Ser Asp Gly Ser Val Trp
    50                  55                  60
Ser His Ile Leu Pro Thr Val Ser Asp Ser Leu Tyr Ala Leu Tyr
65                  70                  75
```

<210> 38637
<211> 659
<212> PRT
<213> A.fumigatus

<400> 38637

```
Arg Val Gln Arg Asn Cys Met Cys Phe Lys Thr Asn His Ser Phe Phe
1               5                   10                  15
Lys Ile Phe Gly Gln Lys Thr Lys Ile Arg Tyr Ser Gly Ala Gln Ala
            20                  25                  30
Val Met Arg Ser Thr Thr Ser Arg Lys Gly Gln Thr Ser Ile Thr His
        35                  40                  45
Leu Met Asn Phe Ser Leu Pro Pro Arg Pro Gln Tyr Gln Pro Pro Pro
    50                  55                  60
Arg Asn Ser Arg Arg Tyr Ala Ser Trp Gly Leu Gly Ser Gly Tyr His
65                  70                  75                  80
Ala Met Asp Lys Ala Arg Tyr Val His Ala Asn Tyr Arg Phe Ile Val
                85                  90                  95
Asn Pro Thr Arg Ser Tyr His Ala Gln Ala Ala Asn Ala Asp Val His
            100                 105                 110
Leu Asp Trp Asp Ser Val Leu Gln Val Leu Val Ser Ala Gln Thr Gln
        115                 120                 125
Ser Thr Ser Cys Pro Ile Cys Leu Ser Thr Pro Val Ala Pro Arg Met
    130                 135                 140
Ala Arg Cys Gly His Ile Phe Cys Leu Pro Cys Leu Ile Arg Tyr Met
145                 150                 155                 160
His Ser Thr Asp Asp Asp Ala Pro Val Pro Glu Lys Lys Ala Arg Trp
                165                 170                 175
Lys Lys Cys Pro Leu Cys Trp Asp Ser Ile Tyr Ile Ser Glu Thr Arg
            180                 185                 190
Pro Val Arg Trp Phe Arg Gly Gln Glu Gly Asp Ile Pro Val Glu Gly
```

```
        195                 200                 205
Gly Asp Val Val Leu Arg Leu Val Lys Arg Asp Pro Gly Ser Thr Leu
    210                 215                 220
Ala Leu Pro Arg Asp Gly Ala Glu Ser Leu Asn Pro Gly Glu Asp Val
225                 230                 235                 240
Pro Trp Tyr His Ala Ala Glu Val Ala Asp Tyr Ala Arg Ile Met Lys
                245                 250                 255
Gly Gly Glu Asp Tyr Met Ile Ala Gln Tyr Asp Ala Glu Val Glu Asp
            260                 265                 270
Leu Arg Arg Gln Glu Ala Glu Asp Glu Leu Leu Phe Gly Asp Asp Asn
        275                 280                 285
Thr Trp Thr Lys Lys Ala Ile Ala Ala Ile Asn Asp Ala Lys Thr Lys
    290                 295                 300
Ile Lys Gly Ile Gly Asn Pro Pro Asn Val Gln Arg Gln Pro Ala Thr
305                 310                 315                 320
Asp Lys Ser Leu Lys Asp Ala Val Ser Ala Gln Ser Ser Gln Ser Ser
                325                 330                 335
Pro Asn Ala Thr Gln Thr Glu Glu Ile Leu Ala Ala Glu Ser Val Ser
            340                 345                 350
Ser Ser Gly Val Gly Ala Gly Ala Ala Thr Ile Pro Val Thr Asn Gly
        355                 360                 365
Glu Val Glu Arg Val Ala Glu Ala Val Ala Asn Val His Leu Lys Ser
    370                 375                 380
Thr Pro Glu Ala Lys Leu Lys Gln Lys Asp Ala Gly His Ser Arg Ser
385                 390                 395                 400
Pro His Lys Gly Asp Arg Thr Arg Glu Gly Asn Gly Pro His Pro Pro
                405                 410                 415
Asp His Pro Phe Tyr Phe Tyr Gln Ala Leu Pro Gln Phe Tyr Leu Ser
            420                 425                 430
Pro Leu Asp Ile Arg Ile Leu Lys Ala Ala Phe Gly Asp Tyr Ala Thr
        435                 440                 445
Phe Pro Ala Thr Ile Leu Pro Arg Val Glu Arg Ile Ser Ser Gly His
    450                 455                 460
Ile Val Asp Asp Glu Leu Arg Lys Arg Val Lys Tyr Leu Gly His Leu
465                 470                 475                 480
Pro Gln Gly Cys Glu Val Asn Phe Leu Glu Cys Asp Trp Arg Asp Val
                485                 490                 495
Val Val Pro Glu Ile Leu Glu Arg Phe Ser Ala Glu Thr Gly Arg Arg
            500                 505                 510
Arg Lys Arg Asn Lys Glu Lys Glu Ala Arg Glu Glu Lys Glu Arg Leu
        515                 520                 525
Arg Ala Glu Lys Glu Glu Glu Glu Lys Arg Trp Ala Ala Ala Arg Arg
    530                 535                 540
Arg Arg Pro Ser Ile Gly Ile Ser Asp Pro Pro Phe Ser Asp Gln Asp
545                 550                 555                 560
Phe Gln Pro Leu Ser Asn Asp Pro Met Ala Ala Gly Phe Pro Pro Phe
                565                 570                 575
Asp Ala Gly Ser Ser Ser Ala Ser Pro Pro Arg Pro Ser Ser Gln Phe
            580                 585                 590
Gly Ala Leu Ala Ser Pro Ser Thr Thr Pro Pro Gly Val Arg Thr Val
        595                 600                 605
Trp Gly Thr Thr Val Ala Pro Phe Ile Ala Glu Ser Ser Glu Val Ser
    610                 615                 620
Pro Arg Pro Ala Arg His Asp Gly Trp Arg Glu Asp Trp Glu Glu Glu
625                 630                 635                 640
Leu Leu Ala His Gln Glu Arg Gln Leu Leu Ala Gln Thr Ser Leu Glu
```

645 650 655
Gly Asn Gln

<210> 38638
<211> 194
<212> PRT
<213> A.fumigatus

<400> 38638
Ser Leu Ala Glu Ser Val Phe Pro Pro Leu His Asn Thr Tyr Trp Arg
1 5 10 15
Glu Ser Ser Val Arg Leu Ile Phe Phe Arg Ser Arg Lys Leu Glu Arg
20 25 30
Pro Gly Tyr Val Glu Thr Pro Gly Arg Arg Val Thr Arg Ser Arg Val
35 40 45
Val Val Ala Ser Glu Thr Ser Ala Asp Asp Val Ser Asp Ser Ala Thr
50 55 60
Glu Ile Arg Gly Arg Ser Lys Ser Thr Thr Arg Arg Arg Gln Val Lys
65 70 75 80
Thr Glu Glu Ala Ser Glu Gly Glu Glu Lys Gly Arg Ala Asn Gly His
85 90 95
Ile Asn Gly Asn Thr Asn Gly His Thr Asn Gly His Thr Asn Gly His
100 105 110
Thr Asn Gly Ser Thr Lys Lys Pro Arg Val Ile Asp Gly Trp Val Glu
115 120 125
Gly Ser Asp Pro Lys Ile Asp Tyr Ser Gly Glu Phe Glu Phe Gly Gly
130 135 140
Ser Trp Gly Val Leu Ser Met Met Ile Gly Phe Pro Leu Leu Met Tyr
145 150 155 160
Tyr Met Trp Ile Gly Ala Val Tyr Tyr Asp Gly Lys Phe Pro Arg Pro
165 170 175
Phe Gly Arg Pro Glu His Val Gly Ile Ser Arg Ala His Gly Pro Phe
180 185 190
Ser Leu

<210> 38639
<211> 160
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (103)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38639
Cys Thr Thr Cys Gly Leu Val Pro Ser Ile Met Met Ala Asn Phe Pro
1 5 10 15
Val Pro Ser Glu Gly Gln Ser Met Ser Glu Phe Leu Ala His Met Gly
20 25 30
His Leu Val Cys Glu Gly Ala Tyr Pro Ser Leu Arg Ala Trp Ile Ile
35 40 45
Tyr Trp Val Phe Phe Ile Phe Glu Gly Leu Cys Tyr Val Leu Leu Pro
50 55 60

```
Gly Val Thr Val Met Gly Pro Cys Ser Ala Pro Leu Pro Gly Glu Thr
65                  70                  75                  80
Thr Ala Leu Leu Leu Phe Arg Cys Leu Val Phe Leu Pro Gln His Cys
                85                  90                  95
Ser Cys Trp Gly Ser Ser Xaa Leu Pro Gly Phe Ser Gly Gly Thr Pro
            100                 105                 110
Ser Ser Asn Glu Phe Arg Ala Pro Ser Glu Arg Trp His Pro Leu Trp
        115                 120                 125
Ala Ser Arg Val Val Pro Pro Ser His Thr Pro Pro Arg Leu Ala Pro
    130                 135                 140
Trp Val Pro His Leu Pro Leu Asn Gly Val Thr Asn Pro Lys Asn Ser
145                 150                 155                 160
```

<210> 38640
<211> 72
<212> PRT
<213> A.fumigatus

<400> 38640

```
Pro Gln Arg Gly Phe Ile Pro Gly Leu Ile Val Ile Gly Val Asn Thr
1               5                   10                  15
Gly Gln Ala Ser Lys Ser Gly Val Phe Ala Arg His Gly Ile His Thr
            20                  25                  30
Cys Gly Ser Thr Ala Lys Lys Glu His Asn His Thr Thr His Ser Ser
        35                  40                  45
Thr Val Arg Lys Asp Asn Lys Tyr Ser Gly Met Met Tyr Gln Thr Val
    50                  55                  60
Ile Thr Cys Met Gly Tyr Cys Lys
65                  70
```

<210> 38641
<211> 112
<212> PRT
<213> A.fumigatus

<400> 38641

```
Leu Lys Ser Leu Lys Ile Ser Met Glu Asn Phe Ile Thr Gly Tyr Pro
1               5                   10                  15
Gly His Glu Ser Gln His Arg Ala Ala Met Arg Arg Val Leu Gly Pro
            20                  25                  30
Glu Lys Tyr Glu Phe Phe Phe Asp Arg Trp Leu Glu Tyr Phe Phe Thr
        35                  40                  45
Glu Ala Asp Ala Lys Phe Phe Ala Gly Leu Gly Leu Asn Cys Ile Arg
    50                  55                  60
Ile Pro Phe Asn Tyr Arg His Phe Glu Asp Asp Met Asn Pro Arg Val
65                  70                  75                  80
Leu Lys Glu Ser Gly Phe Lys His Leu Asp Arg Val Ile Glu Leu Val
                85                  90                  95
Arg Val Leu Gln Arg Asp Asp Arg Met Met Leu Met Cys Tyr Ser Pro
            100                 105                 110
```

<210> 38642
<211> 219
<212> PRT
<213> A.fumigatus

<400> 38642
Cys Ala Lys Glu Lys Ile Tyr Thr Ile Leu Asp Met His Thr Ala Pro
1 5 10 15
Gly Gly Gln Asn Gly Asp Trp His Ser Asp Asn Pro Thr Ser Tyr Ala
20 25 30
Ala Phe Trp Asp Phe Lys Asp His Gln Asp Arg Thr Val Trp Leu Trp
35 40 45
Glu Gln Ile Ala Ala Arg Tyr Lys Asp Asn Pro Trp Val Ala Gly Tyr
50 55 60
Asn Pro Leu Asn Glu Pro Cys Asp Pro Glu His Val Arg Leu Pro Ala
65 70 75 80
Phe Tyr Glu Arg Val Glu Lys Ala Ile Arg Ala Ile Asp Pro Asp His
85 90 95
Ile Leu Trp Leu Asp Gly Asn Thr Phe Ala Met Glu Trp Lys Gly Phe
100 105 110
Asp Lys Val Leu Pro Asn Cys Val Tyr Ala Met His Asp Tyr Ser Val
115 120 125
Gly His Phe Pro Ser Glu Gln Arg Val His Met Leu Ile Phe Pro Pro
130 135 140
Ser Val Asn Gly Phe Ser Tyr Arg Arg Ala Ile Gln Gly Asn Pro Arg
145 150 155 160
Ala Lys Gly Thr Pro Arg Thr Ala Val Pro Ser Gln Ser Arg Ile His
165 170 175
Glu Gln Lys Arg Asp Ser Asn Leu Glu Arg Arg Val Trp Pro Arg Leu
180 185 190
Arg Gln Ser Pro Tyr Gly Ser Arg Gly Arg Asn His Gln Pro Arg Thr
195 200 205
Leu Gln Pro Ser Gly Arg Ala Ala Ser Tyr Leu
210 215

<210> 38643
<211> 499
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (434)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38643
Glu Lys Phe Ser Lys Met Ser Glu Ala Ser Ser Ala Ser Tyr Pro Ser
1 5 10 15
Ser Leu Asp Val Leu Phe Asp Gly Thr Ser Pro Leu Arg Glu Gln Tyr
20 25 30
Asp Pro Val Lys Leu Ala His Ala Glu Ile Val Pro Ile Leu Gln Leu
35 40 45
Pro Leu Ala Arg Glu Leu Leu Gly His Asn Pro Thr Asp Ala Ser Ala
50 55 60
Ile Ser Arg Val Ser Asn Gly Glu Ile Cys Tyr Thr Thr Phe Leu Ala
65 70 75 80
Glu Lys Ala Lys Ala Thr Ala Gln Met Pro Leu Asp Gly Leu Thr Ala
85 90 95
Gly Gln Gln Arg Ser Gln Ile Leu His Ile Gly Leu Ala Ala Leu Phe
100 105 110
Ser Phe Met Gln Ser Asn Ile Thr Gly Pro Pro Leu Asp Phe Asn Ser

```
        115                 120                 125
Ala Asp Val Ile Phe Pro Lys Ala Leu His Ser Asp Ala Thr Lys Leu
    130                 135                 140
Arg Ala Ala Arg Asn His Ile Ile Arg Glu Leu Ser Val Asp Gly Glu
145                 150                 155                 160
Ala Ala Tyr Lys Leu Thr Pro Asn Val Glu Leu Phe Ala Val Ala Met
                165                 170                 175
Ala Leu Leu Val Asp Ala Asp Ile Leu Val Ala Asp Gly Pro Leu Val
            180                 185                 190
Ala Arg Thr Ala Arg Leu Arg Val Asn Phe Leu His Gln Lys Met Leu
        195                 200                 205
Ser Glu Ala Thr Ser Thr Leu Gln Asp Ala Ile Tyr Ser Asp Leu Glu
    210                 215                 220
Glu Leu Asn Arg Ile Leu Leu Gly Glu Lys Ser Val Phe Ser Thr Ala
225                 230                 235                 240
Gln Glu Lys Gly Arg Phe Leu Val Glu Arg Ala Thr Ile His Ser His
                245                 250                 255
His Gly Phe Asp Ala Lys Ala Arg Ala Asp Leu Glu Gln Ala Ala Ala
            260                 265                 270
Val Arg Lys Phe Glu Phe Ala Leu Thr Gly Arg Leu Gly Lys Arg Thr
        275                 280                 285
Lys Phe Gln Glu His Asp Ile Ser Gln Leu Val Val Leu Ala Lys Ser
    290                 295                 300
Ala Glu Glu Leu Thr Thr Thr Gly Asn Ser Ala Leu Pro Glu Asp Lys
305                 310                 315                 320
Gly Asp Thr Phe Gln Ala Gly Pro Lys Asn Leu Asp Leu Asn Asp Asp
                325                 330                 335
Thr Leu Leu Glu Ser Ile Ser Phe Thr Lys Asp Thr Gln Thr Ser Lys
            340                 345                 350
Asp Lys Ser Thr Thr Val Gln Glu Glu Ser Thr Leu Pro Pro Ala Leu
        355                 360                 365
Gln Ser Leu Asp Pro Gly Asn Gln Pro Leu Leu Asp Pro Val Asp Ser
    370                 375                 380
Ala Ile Leu Leu Gly Leu Ala Ser Thr Ile Thr Asn Thr Ser Pro Asp
385                 390                 395                 400
Asn Gly Leu Thr Arg Glu Glu Thr His Pro Tyr Ala Ile Arg Val Leu
                405                 410                 415
Glu Gly Gly Ser Ser Asn Trp Gln Val Tyr Thr Gln Ala Leu Leu Val
            420                 425                 430
Arg Xaa Arg Val Glu Gly Tyr Arg Ala Arg Thr Val Glu Arg Ser Val
        435                 440                 445
Leu Gln Met Gln Ala Leu Val Asp Gln Val Ile Ala Asp Thr Ala Thr
    450                 455                 460
Leu Asp Thr Gln Thr Thr Glu Asn Gly Asn Gln Ala Thr Thr Phe Leu
465                 470                 475                 480
Pro Arg Pro Glu Lys Ser Glu Ser Ala Ser Ala Ala Glu Arg Leu Glu
                485                 490                 495
Tyr Ile Trp
```

<210> 38644
<211> 434
<212> PRT
<213> A.fumigatus

<400> 38644

```
Leu Pro Ile Val Pro Leu Gly Ala Val Pro Ser Ala Pro Val Val Lys
1               5                  10                  15
Ile Val Phe Cys Glu Asn Ser Arg Ile Leu Ala Thr Gly Asp Leu Ser
            20                  25                  30
Gly Cys Ile Asp Thr Trp Leu Leu Lys Asp Val Lys Asp Ser Ser Ala
        35                  40                  45
Val Ala Ser Asn Lys Arg Asn Gly Ala Ala Asp Ser Asp Asp Glu Ser
    50                  55                  60
Ser Asp Asp Glu Asp Glu Arg Pro Val Ile Asp Gly Glu Arg Trp Gln
65                  70                  75                  80
Tyr Ala Asn Ala Asp Ser Pro Ile Pro Arg Leu Lys Ser Gly Val Leu
                85                  90                  95
Leu Leu Ser Phe Arg Pro Gln Ser Pro Ala Glu Ala Lys Leu Leu Thr
            100                 105                 110
Asn Gly Ala Asp Gln Ser Ser Gln Ile Ser Leu Arg Gly Glu Ser Arg
        115                 120                 125
Leu Met Ala Leu Thr Ser Glu His Gln Leu Val Glu Phe Asp Thr Leu
    130                 135                 140
Glu Gly Lys Leu Ser Asp Trp Ser Arg Arg Asn Pro Lys Ala Tyr Leu
145                 150                 155                 160
Pro Glu Gln Phe Lys Gly Val Lys Asp Arg Ala Met Gly Cys Leu Trp
                165                 170                 175
Asp Leu Ser Glu Ser Arg Asp Arg Leu Trp Leu Tyr Gly Thr Ser Trp
            180                 185                 190
Leu Trp Met Phe Asp Leu Asn Gln Asp Phe Pro Ser Ser Glu Glu Met
        195                 200                 205
Lys Glu Ala Ala Asp Gly His Glu Gly Asp Ser Ser Thr Gln Leu Val
    210                 215                 220
Lys Thr Ser Ser Ala His Lys Arg Lys Arg Glu Gln Met Glu Glu Glu
225                 230                 235                 240
Glu Lys Arg Gly Lys Ala Asn Ser Gly Ala Gly Asp Arg Met Ser Leu
                245                 250                 255
Ala Gln Ser Asp Val His Leu Gly Ser Lys Tyr Arg Lys Ile Glu Gly
            260                 265                 270
His Asp Asp Ser Lys Gly Glu Trp Val Ser Leu Asp Lys Glu Arg Pro
        275                 280                 285
Gln Ala Ala Gly Asp Glu Glu Ala Phe Glu Tyr Asp Glu Asn Ser Ala
    290                 295                 300
Ala Val His Asp Thr Ala Leu Ala Arg Leu Arg Arg Gly Lys Leu Glu
305                 310                 315                 320
Glu Asp Gly Ile Ser Thr Pro Arg Lys Arg Val Ser Leu Gly Pro Arg
                325                 330                 335
Asp Asn Leu Leu Ser Leu Asn Gly Ser Asn Asp Thr Pro Ser Arg Lys
            340                 345                 350
Pro Asn Asp His Asp Met Pro Asp Thr Pro Gln Thr Arg Leu Val Gln
        355                 360                 365
Pro Asn Gly Thr Gln Pro Ala Arg Arg Trp Trp Tyr Thr Tyr Lys Tyr
    370                 375                 380
Arg Asp Leu Leu Gly Ile Val Pro Leu Ser Pro Pro Ser Val Glu Asp
385                 390                 395                 400
Gly Val Glu Asp Asp Thr Ala Gly Asn Thr Leu Glu Val Ala Ile Val
                405                 410                 415
Glu Arg Pro Met Trp Asp Val Glu Leu Pro Gly Arg Tyr Val Arg Asp
            420                 425                 430
Tyr Ala
```

<210> 38645
<211> 70
<212> PRT
<213> A.fumigatus

<400> 38645
Thr Ser Tyr Ser Ala His Pro Phe Ile Trp Ser Phe Val Tyr Phe Phe
1 5 10 15
Ser Ser Ser Cys Pro Phe Gln Leu Leu Tyr Ser Leu Gly Glu Leu Asp
20 25 30
Arg Ser Ile Tyr Lys Trp Ile Lys Val Tyr Ser Trp Asn Glu Pro Leu
35 40 45
Pro Ser Ala Tyr Thr Ser Val Tyr Glu Ala Ala Gly Ser Asp Ile Ser
50 55 60
Ser Phe Ser Ile Arg His
65 70

<210> 38646
<211> 73
<212> PRT
<213> A.fumigatus

<400> 38646
Ile Ile Leu Ser Tyr Gln Ser Ile Asn Leu Ser Ile Phe Ile Asp Gln
1 5 10 15
Ser Leu Asp Gly Asp Ile Ile His Asn Ser Pro Asp Ser Glu Thr Ser
20 25 30
Gln Ser Leu Pro Pro Pro Ser Leu Leu Leu Met Val Lys Ser Arg Leu
35 40 45
Gln Asn Leu Leu Ser Ser Pro Ser Arg Leu Thr Arg Trp Gln Lys Thr
50 55 60
Tyr Leu Leu Phe Gln Val Trp Val Phe
65 70

<210> 38647
<211> 161
<212> PRT
<213> A.fumigatus

<400> 38647
Val Trp Trp Gly Val Ala Ile Gly Leu Phe Ile Ser Val Cys Ile Gly
1 5 10 15
Ala Gly Met Ile Gly Ala Phe Tyr Gly Tyr Gly Lys Asp His Phe Ala
20 25 30
Ser Thr Glu Asp Leu Trp Glu Gly Ile Phe Ser Leu Ile Ala Ser Val
35 40 45
Ile Ile Thr Ile Met Gly Ala Ala Leu Leu Arg Val Thr Lys Leu Gln
50 55 60
Glu Lys Trp Arg Val Lys Leu Ala Gln Ala Leu Glu Ala Lys Pro Leu
65 70 75 80
Thr Gly Gly Thr Phe Lys Asn Asn Leu Lys Leu Trp Ala Glu Lys Tyr
85 90 95
Ala Met Phe Leu Leu Pro Phe Ile Thr Val Leu Arg Glu Gly Leu Glu
100 105 110
Ala Val Val Phe Ile Gly Gly Val Ser Leu Ser Phe Pro Ala Thr Ala

```
        115                 120                 125
Phe Pro Leu Pro Val Phe Thr Gly Ile Leu Ala Gly Val Ala Ile Gly
    130                 135                 140
Tyr Leu Leu Tyr Arg Tyr Val Glu Thr Pro Glu Ser Ala Val Phe Leu
145                 150                 155                 160
Lys
```

<210> 38648
<211> 178
<212> PRT
<213> A.fumigatus

<400> 38648

```
Thr Thr Met Leu Met Val Cys Arg Gly Gly Asn Gln Ala Ser Leu Gln
1               5                   10                  15
Ile Phe Leu Ile Ile Ser Thr Cys Ile Leu Tyr Leu Val Ala Ala Gly
            20                  25                  30
Leu Phe Ser Arg Gly Val Trp Tyr Leu Glu Asn Asn Thr Trp Asn His
        35                  40                  45
Val Ile Gly Gly Asp Ala Ala Glu Thr Gly Ala Gly Pro Gly Ser Tyr
    50                  55                  60
Asp Ile Arg Gln Ser Val Trp His Val Asn Cys Cys Ser Pro Leu Val
65                  70                  75                  80
Asn Gly Gly Gly Gly Trp Gly Ile Phe Asn Ala Ile Leu Gly Trp Thr
                85                  90                  95
Asn Ser Ala Thr Tyr Gly Ser Val Leu Ser Tyr Asn Leu Tyr Trp Ile
            100                 105                 110
Ala Val Ile Val Trp Phe Val Ala Met Arg His Lys Glu Arg His Gly
        115                 120                 125
Arg Leu Pro Val Val Asp Pro Leu Leu Asn Arg Leu Arg Gly Arg Lys
    130                 135                 140
Ser Ala Glu Pro Gly Asn Gly Glu Gln Asp Val Glu Val Ser Thr Ile
145                 150                 155                 160
Pro Ser Asp Leu Gln Thr Glu Ser Lys Ile Pro Lys Ser Gly Ala Ser
                165                 170                 175
Leu Val
```

<210> 38649
<211> 62
<212> PRT
<213> A.fumigatus

<400> 38649

```
Val Leu Phe Arg Ile Leu Gly Thr Arg Ser Leu Gln Ser Ala Leu Tyr
1               5                   10                  15
Val Ser Pro Leu Tyr Ile Pro Ile Leu Phe Val Ser Ala Leu Thr Arg
            20                  25                  30
Leu Gln Glu Ile Gly Tyr Cys Ser Ser Phe Ile Thr Leu Gln Phe Phe
        35                  40                  45
Leu Leu Pro Cys Asn Leu Thr Pro Leu Tyr Ala Ile Cys Pro
    50                  55                  60
```

<210> 38650
<211> 85

<212> PRT
<213> A.fumigatus

<400> 38650
Leu Ala Ala His Ser Lys Thr Thr Ser Asn Phe Gly Arg Arg Asn Thr
1 5 10 15
Pro Cys Phe Ser Ser Pro Ser Ser Pro Phe Ser Glu Lys Ala Trp Lys
20 25 30
Gln Trp Cys Ser Leu Glu Ala Ser Val Ser Val Phe Leu Gln Leu Pro
35 40 45
Ser Leu Tyr Leu Phe Leu Leu Ala Phe Ser Gln Glu Trp Pro Leu Gly
50 55 60
Thr Tyr Cys Ile Gly Met Leu Lys Pro Leu Asn Gln Leu Ser Phe Ser
65 70 75 80
Asn Arg Pro Pro Cys
85

<210> 38651
<211> 101
<212> PRT
<213> A.fumigatus

<400> 38651
Leu Thr Phe Leu His Leu Pro Ser Val Phe Phe Ile Cys Phe Arg Glu
1 5 10 15
Cys Val Glu Thr Ser Ile Ile Val Ser Val Leu Leu Ser Phe Ile Lys
20 25 30
Gln Thr Leu Gly Gln Glu Gln Asp Ala Thr Thr Arg Lys Arg Leu Ile
35 40 45
Arg Gln Val Gly Arg Phe Tyr Ser Leu Ala Leu Ser Phe Ser Glu Leu
50 55 60
Gln Ala Asp Ser Val Asp Ser Val Leu Leu Gly Val Val Gly Gly Cys
65 70 75 80
His Trp Val Val His Gln Cys Leu His Arg Ser Trp His Asp Arg Ser
85 90 95
Val Leu Trp Ile Trp
100

<210> 38652
<211> 201
<212> PRT
<213> A.fumigatus

<400> 38652
Phe Leu Ser Ser Ser Gln Phe Leu Thr Thr Phe Leu Val Leu Lys Met
1 5 10 15
Pro Pro His Glu Arg Leu Val His Leu Lys Glu Tyr Asp Ile Gln Asp
20 25 30
Ser Asn Val Glu Leu Ile Gly Ser Asp Ile Asp His Arg Val Lys Tyr
35 40 45
Lys Ser Ala Ala Ser Glu Pro Ala Trp Asn Asn Glu Leu Val Gly Arg
50 55 60
Glu Cys Gly Ser Ser Ser Gly Ala Leu Arg Thr Ser Arg Ser Ser Pro
65 70 75 80
Gly Pro Arg Asn Glu Arg Val Ser Phe Thr Thr Ala Thr Ala Ile Ser
85 90 95

```
Ser Cys Thr Pro Thr Arg Pro Arg Arg Ser Cys Ala Thr Ile Ser Ser
            100                 105                 110
Ser Gly Trp Gly Ala Arg Pro Arg Arg Thr Arg Arg Ala Arg Pro Arg
        115                 120                 125
Thr Arg Pro Ser Ser Ser Met Ser Ser Cys Ala Glu Leu Arg His Ser
    130                 135                 140
Ile Ala Arg Cys Arg Arg Thr Pro Arg Arg Ser Ser Trp Arg Phe Ser
145                 150                 155                 160
Ala Gly Ser Val Phe Gly Leu Gly Ala Cys Asp Arg Ala Ser Thr Thr
                165                 170                 175
Ser Arg Gln Arg Arg Arg Arg Pro Arg Arg Pro Ser Pro Cys Phe Gly
            180                 185                 190
Ser Ser Cys Thr Leu Val Leu Arg Glu
        195                 200
```

<210> 38653
<211> 87
<212> PRT
<213> A.fumigatus

<400> 38653

```
Trp Thr Cys Arg Ala Pro Phe Ser Pro Val Val Lys Thr Tyr Ile Tyr
1               5                   10                  15
Ser Leu Tyr Ile Ser Ser Leu Pro His Cys His Phe Thr Thr Ile Gln
            20                  25                  30
Leu Ile Pro Phe Gly Ser Ser Pro Ile Leu Val Ser Ala Ser Val Ile
        35                  40                  45
Glu Thr Thr Phe Leu Ser Ser Ala His His Gly Arg Ser Ser Phe Asp
    50                  55                  60
Leu Ala Pro Arg Arg Ile His Thr Ala Ser Val Pro Ser Cys Arg Leu
65                  70                  75                  80
Cys Ser Leu Val Cys His Cys
                85
```

<210> 38654
<211> 87
<212> PRT
<213> A.fumigatus

<400> 38654

```
Arg Ser Gln His Phe Gly Leu Leu Val Tyr Val Trp Pro Ile Trp Asn
1               5                   10                  15
Gly Phe Arg Thr Ser Thr Val Val Ala Asn Thr Pro Leu Gly Arg Ile
            20                  25                  30
Pro Thr Asp Thr Lys Gln Glu Ser Arg Ile Tyr Pro Leu Pro His Thr
        35                  40                  45
Tyr Val Val Lys Asp Leu Val Pro Asp Leu Thr Tyr Phe Tyr Lys Gln
    50                  55                  60
Tyr Lys Ser Ile Lys Pro Tyr Leu Gln Arg Asp Thr Lys Thr Glu Asp
65                  70                  75                  80
Val Ser Thr Ser Arg Ile Leu
                85
```

<210> 38655
<211> 107
<212> PRT

<213> A.fumigatus

<400> 38655

```
Gly Leu Glu Asn Arg Gln Ser Pro Glu Asp Arg Lys Lys Leu Asp Gly
1               5                  10                  15
Leu Tyr Glu Cys Ile Leu Cys Ala Cys Cys Ser Thr Ser Cys Pro Ser
            20                  25                  30
Tyr Trp Trp Asn Ser Glu Glu Tyr Leu Gly Pro Ala Ile Leu Leu Gln
        35                  40                  45
Ser Tyr Arg Trp Leu Ala Asp Ser Arg Asp Glu Lys Thr Ala Glu Arg
    50                  55                  60
Lys His Ala Leu Asp Asn Ser Met Ser Val Tyr Arg Cys His Thr Ile
65                  70                  75                  80
Leu Asn Cys Ser Arg Thr Cys Pro Lys Gly Leu Asn Pro Ala Arg Ala
                85                  90                  95
Ile Ala Glu Ile Lys Lys Met Leu Ala Thr His
            100                 105
```

<210> 38656
<211> 171
<212> PRT
<213> A.fumigatus

<400> 38656

```
Leu Lys Arg Pro Ser Ser Arg Pro Pro Thr Met Ala Ala Leu Arg Ser
1               5                  10                  15
Thr Ser Arg Leu Val Ala Ser Thr Arg Pro Leu Phe Arg Pro Ala Val
            20                  25                  30
Phe Ala Arg Ser Tyr Ala Thr Val Asp Pro Ala Thr Gly Val Gly Arg
        35                  40                  45
Thr Gly Ser Ala Glu Ala Lys Val Thr Pro Glu Thr Arg Thr Ser Asn
    50                  55                  60
Val Gln Asp Pro Ser Pro Ser Gln Ala Pro Arg Ile Lys Lys Phe His
65                  70                  75                  80
Val Tyr Arg Trp Asn Pro Asp Lys Pro Thr Glu Lys Pro Lys Met Gln
                85                  90                  95
Thr Tyr Ser Leu Asp Leu Asn Lys Thr Gly Pro Met Met Leu Asp Ala
            100                 105                 110
Leu Ile Arg Ile Lys Asn Glu Ile Asp Pro Thr Leu Thr Phe Arg Arg
        115                 120                 125
Ser Cys Arg Glu Gly Ile Cys Gly Ser Cys Ala Met Asn Ile Asp Gly
    130                 135                 140
Val Asn Thr Leu Ala Cys Leu Cys Met Phe Gly Pro Phe Gly Thr Asp
145                 150                 155                 160
Ser Gly His Arg Pro Trp Leu Leu Thr Pro Arg
                165                 170
```

<210> 38657
<211> 87
<212> PRT
<213> A.fumigatus

<400> 38657

```
Tyr Leu Ser Cys Leu Gly Cys Asn Ile Phe Lys Pro Ser Thr Pro Ile
1               5                  10                  15
Tyr Thr Ser Gln Ala Asn Lys Gly Ser Leu Thr Cys Leu Tyr Trp Ile
```

```
            20                  25                  30
Lys Asn Ser Gln Pro His Lys Asp Leu Ile Tyr Cys Met Met Thr Val
        35                  40                  45
Leu Glu Ala Asp Leu Asn Asp Tyr Gly His Ser His Arg Tyr Thr Ser
    50                  55                  60
Cys Ile Asn Leu Ser Cys Leu Val Trp Tyr Met Tyr Ser Ala Ala Gln
65                  70                  75                  80
Ser Tyr Ser Pro Leu Leu Ile
                85
```

<210> 38658
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38658

```
Trp Arg Ser Pro Leu Ser Leu Gln Ile Ile Leu Ser Leu Ala His Ser
1               5                   10                  15
Ser Ala Leu Thr Gln Pro Pro Val His Ile Val Ser Phe Leu Phe Ser
            20                  25                  30
Ile Ser Asn Tyr Ile Pro Ser Ile Glu Asn Ala Ser Ala Arg Lys Ile
        35                  40                  45
Gly Ser Ser Glu Arg Val Arg His Pro Arg Gln Gln Cys Gly Thr Asp
    50                  55                  60
Arg Phe Arg His
65
```

<210> 38659
<211> 371
<212> PRT
<213> A.fumigatus

<400> 38659

```
Pro Pro Arg Gln Ile Gln Val Ser Arg Ile Arg Thr Ser Leu Glu Gln
1               5                   10                  15
Arg Thr Gly Arg Pro Arg Met Arg Leu Phe Ile Trp Arg Ile Glu Asn
            20                  25                  30
Phe Glu Val Ile Pro Trp Pro Lys Glu Arg Thr Gly Glu Phe Tyr Asp
        35                  40                  45
Gly Asp Ser Tyr Ile Val Met His Ser Tyr Lys Ala Glu Glu Lys Leu
    50                  55                  60
Cys His Asp Ile Phe Phe Trp Leu Gly Ser Lys Thr Thr Gln Asp Glu
65                  70                  75                  80
Ala Gly Thr Ala Ala Tyr Lys Thr Val Glu Leu Asp Glu Phe Leu Arg
                85                  90                  95
Gly Thr Ala Thr Gln His Arg Glu Val Gln Ala His Pro Ser Pro Glu
            100                 105                 110
Phe Val Ala Leu Phe Arg Arg Leu Cys Val Arg Ser Gly Gly Val Arg
        115                 120                 125
Ser Gly Phe Asn His Val Glu Thr Glu Glu Thr Ser Ser Thr Glu Ala
    130                 135                 140
Ile Thr Leu Leu Arg Ile Phe Met His Pro Gly Ala Ala Arg Val Asp
145                 150                 155                 160
Ser Val Ile Val His Glu Val Glu Pro Thr Trp Gly Ser Leu Asp Asp
                165                 170                 175
His Asp Val Phe Val Leu Asp Gln Gly Gln Lys Ile Trp Val Trp Gln
```

```
            180                 185                 190
Gly Lys Ser Cys Ser Pro Met Glu Lys Ala Lys Ala Ala Gln Val Val
        195                 200                 205
Asn Asp Met Thr Leu Ala Lys His Leu Asp Val Glu Val Leu Ser Gln
    210                 215                 220
Leu Glu Ser Arg Ser Arg Ile Ile Val Asp Leu Leu Gly Gly Lys Asp
225                 230                 235                 240
Ile Gln Gln Ser Ser Phe Lys Ala Pro Arg Pro Val Ser Phe Pro Ala
                245                 250                 255
Gly Gly Asp Arg Asp Ser Asp Glu Ser Gln Ser Leu Lys Leu Phe Arg
            260                 265                 270
Leu Ser Asp Ala Thr Gly Ala Ile Ser Phe Asp Leu Val Lys Asp Gly
        275                 280                 285
Gln Arg Ile Ser Pro Ser Asp Leu Asp Glu Asn Asp Val Phe Val Cys
    290                 295                 300
Asp Thr Gly Ser Arg Leu Trp Val Trp Gln Gly Ser Arg Ala Ser Lys
305                 310                 315                 320
Leu Glu Lys Ala Leu Trp Leu Asn Val Ala Gln Ser Tyr Ala Arg Gln
                325                 330                 335
Ile Gln Glu Ala Arg Thr Asn Leu Ala Ala His Leu Thr Pro Ile Ser
            340                 345                 350
Asn Val Val Gln Gly His Glu Ser Pro Ala Phe Trp Lys Ala Ile Arg
        355                 360                 365
Val Arg Asp
    370
```

<210> 38660
<211> 66
<212> PRT
<213> A.fumigatus

<400> 38660

```
Ser Ser Asp Leu Asn Glu Pro Ser Pro Ala Gln Val Ile Gln Asp Ile
1               5                   10                  15
Met Thr Pro Pro Ala Ser Arg Gly Ser Gly Phe Pro Gln Asn Pro Leu
            20                  25                  30
Ser His His Gly Leu Ile Leu Met Thr Ser Asp Gly Asp Glu Tyr Glu
        35                  40                  45
Arg Thr Lys Val Ile Cys Ala Pro Ser Ser Trp Gly Gln Lys Leu Ser
    50                  55                  60
Arg Lys
65
```

<210> 38661
<211> 129
<212> PRT
<213> A.fumigatus

<400> 38661

```
Ser His Gly Leu Glu Thr Asp Asn Glu Pro Gln Gly Lys Gly Tyr Pro
1               5                   10                  15
Asp Leu Ser Thr Arg Ala Phe Val Arg Arg Leu Leu Asp Glu Thr Arg
            20                  25                  30
His Leu Pro Ala Glu Glu Ser Pro Arg Phe Tyr Ala Leu Val Asp Ser
        35                  40                  45
Asp Pro Asp Gly Met Ala Ile Met Ser Thr Tyr Lys Tyr Gly Ser Met
```

```
    50                  55                  60
Ala His Ala His Asp Asn Glu Lys Leu Asn Val Ser Lys Leu Cys Trp
65                  70                  75                  80
Leu Gly Leu Arg Thr Ser Asp Val Ile Gly Gly Ala Asp Ser Phe Gly
                85                  90                  95
Asp Glu Ala Phe Ile Arg Leu Ser Leu Arg Asp Arg Lys Lys Ala Val
            100                 105                 110
Ala Met Leu Ser Asn Asn Arg Leu Thr Thr Gly Leu Glu Gly Ser Ala
        115                 120                 125
Leu
```

<210> 38662
<211> 82
<212> PRT
<213> A.fumigatus

<400> 38662

```
Pro Val Ala Leu Ala Leu Gly Thr Tyr Cys Tyr Gln Tyr Thr Phe Ser
1               5                   10                  15
Cys Gly Cys Ser Ser Val Ile Ala Ala Ser Arg Glu Ser Thr Val Asp
            20                  25                  30
Cys Leu Arg Met Arg Cys Tyr Arg Thr Val Arg Ser Gly Trp Tyr Val
        35                  40                  45
Gly Asp Ile Ser Ser Pro Thr Ser Phe Ser Lys Ile Lys Thr His Phe
    50                  55                  60
Thr Ser Glu Ala Ser Ile Ala Ser Met Ser Ser Val Phe Gly Ile Arg
65                  70                  75                  80
Thr Ser
```

<210> 38663
<211> 187
<212> PRT
<213> A.fumigatus

<400> 38663

```
His Leu Ser Pro Leu Pro Pro Arg Thr Ala Cys Leu Pro Phe Thr Tyr
1               5                   10                  15
Leu Thr Ile Ile Gln Gln Glu Leu Pro Glu Leu Pro Lys Ala Lys Thr
            20                  25                  30
Pro Leu Gln Cys Ala Glu Asn Gly Leu Glu Phe Phe Ser Lys Leu Gln
        35                  40                  45
Leu Pro Pro Gly Asn Trp Ala Cys Glu Tyr Gly Gly Pro Met Phe Leu
    50                  55                  60
Leu Pro Gly Leu Ile Ile Thr Tyr Tyr Val Thr Asn Thr Pro Ile Pro
65                  70                  75                  80
Pro Glu Tyr Ala Thr Glu Ile Lys Arg Tyr Leu Phe Ala Arg Gln His
                85                  90                  95
Pro Glu Asp Gly Gly Trp Gly Leu His Ile Glu Ala His Ser Ser Val
            100                 105                 110
Phe Gly Thr Cys Met Asn Tyr Val Ala Leu Arg Leu Ile Gly Val Ser
        115                 120                 125
Glu Asp Asp Pro Arg Met Ile Lys Ala Arg Gly Leu Leu His Lys Phe
    130                 135                 140
Gly Gly Ala Ile Tyr Gly Pro His Trp Ala Lys Phe Trp Leu Ser Val
```

```
145                 150                 155                 160
Leu Gly Val Met Glu Trp Glu Cys Val Asn Pro Val Pro Pro Glu Leu
                165                 170                 175
Trp Tyr Val Pro Leu His Leu His Ile Leu Leu
            180                 185
```

<210> 38664
<211> 486
<212> PRT
<213> A.fumigatus

<400> 38664

```
Gln Arg Ser Arg Leu Leu Pro Asp Trp Val Pro Phe Thr Pro Trp Arg
1               5                   10                  15
Trp Trp Ile His Ile Arg Gln Val Phe Leu Pro Met Ser Tyr Leu Trp
            20                  25                  30
Ser Lys Lys Phe Thr His Pro Leu Asp Pro Leu Thr Lys Gln Leu Arg
        35                  40                  45
Gln Glu Leu Tyr Thr Gln Pro Tyr Asp Ser Ile Ser Phe Ala Asn His
    50                  55                  60
Arg Asn Ser Ile His Ala Ala Asp Asn Tyr Tyr Pro Lys Thr Trp Leu
65                  70                  75                  80
Leu Asn Leu Ile Asn Gln Leu Leu Val Ser Val Trp Asn Pro Tyr Phe
                85                  90                  95
Arg Ile Pro Ala Leu Val Lys Arg Ala Glu Glu Trp Thr Trp Glu Leu
            100                 105                 110
Ile Arg Met Glu Asp Glu Asn Thr Asp Tyr Ala Gly Leu Gly Pro Val
        115                 120                 125
Ser Asn Pro Met Asn Met Val Ala Cys Tyr Leu His Asp Gly Pro Asp
    130                 135                 140
Ser Tyr Ser Val Arg Arg His Arg Glu Arg Leu Asn Asp Tyr Met Trp
145                 150                 155                 160
Met Lys Asn Glu Gly Met Leu Met Asn Gly Thr Asn Gly Val Gln Val
                165                 170                 175
Trp Asp Thr Ala Phe Ile Thr Gln Ala Ile Val Val Ala Gly Phe Ala
            180                 185                 190
Asp Asp Pro Lys Trp Arg Pro Met Leu Thr Lys Ala Leu Glu Phe Leu
        195                 200                 205
Glu Asp His Gln Leu Arg Glu Asn Val Pro Asp Gln Glu Lys Cys Tyr
    210                 215                 220
Arg Gln His Arg Lys Gly Ala Trp Pro Phe Ser Asn Lys Thr Gln Gly
225                 230                 235                 240
Tyr Thr Val Ser Asp Cys Thr Ala Glu Gly Leu Arg Ser Thr Ile Gln
                245                 250                 255
Leu Gln Glu Met His Asn Tyr Pro Arg Leu Ile Ser Val Glu Arg Leu
            260                 265                 270
Lys Asp Ser Val Asp Cys Leu Leu Leu Met Gln Asn Pro Ser Gly Gly
        275                 280                 285
Phe Thr Glu Tyr Glu Thr Thr Arg Gly Ser Glu Lys Leu Glu Trp Leu
    290                 295                 300
Asn Ala Ala Glu Val Phe Gly Gly Ile Met Ile Gly Tyr Asp Tyr Pro
305                 310                 315                 320
Glu Cys Thr Thr Ala Ser Val Thr Ala Leu Ser Leu Phe Ser Arg Phe
                325                 330                 335
Tyr Pro Asp Tyr Arg Ala Asp Glu Ile Lys Ala Ala Lys Asp Lys Ala
            340                 345                 350
```

```
Val Lys Tyr Ile Lys Arg Val Gln Arg Pro Asp Gly Ser Trp Tyr Gly
        355                 360                 365
Ser Trp Gly Ile Cys Phe Thr Tyr Ala Ala Met Phe Ala Leu Glu Ser
    370                 375                 380
Leu Ala Ser Val Gly Glu Thr Tyr Glu Thr Ser Glu Tyr Ala Arg Arg
385                 390                 395                 400
Gly Cys Glu Phe Leu Leu Ser Lys Gln Lys Glu Asp Gly Gly Trp Gly
                405                 410                 415
Glu Ser Tyr Leu Ser Ser Glu Lys His Val Tyr Val Gln His Glu Lys
            420                 425                 430
Ser Gln Val Val Gln Thr Ala Trp Ala Cys Leu Ala Leu Met Glu Ala
        435                 440                 445
Glu Tyr Pro His Lys Glu Pro Leu Gln Lys Ala Met Lys Leu Leu Met
    450                 455                 460
Ser Arg Gln Gln Pro Asn Gly Glu Trp Leu Gln Glu Ser Ile Glu Gly
465                 470                 475                 480
Val Phe Asn Gln Ser Trp
                485
```

<210> 38665
<211> 273
<212> PRT
<213> A.fumigatus

<400> 38665

```
Leu Ser Gly Leu Ser Pro Glu Pro Pro Pro Ser Leu Cys Gln Leu Thr
1               5                   10                  15
Val Ala Ala Met Met Asn Gly Cys Arg Thr His Gly Glu Gly Asp Gln
            20                  25                  30
Val Thr Pro Asp Ser Asn Ala Gln Thr Asp Ser Asn Leu Ser Lys Gly
        35                  40                  45
Glu Gly Glu Met Gly Phe Ser His Val Ser Glu Val Phe Asp Ile Leu
    50                  55                  60
Pro Ala Thr Ala Leu Glu Leu Leu Cys Val Asn Val Glu Phe Leu Ala
65                  70                  75                  80
Arg Pro Ser Val Gly Lys Val Val Glu Pro Val Leu Ala Ala Gly Ser
                85                  90                  95
Thr Pro Ala Thr Met Ala Arg Ser Asp Ser Leu Ser Ser Gly Glu Ala
            100                 105                 110
Thr Pro Thr Arg Ile Ile Glu Leu His Cys Ser Pro Ile Ser His Glu
        115                 120                 125
Glu Gly Ala Arg Asp Gly Ile Gln Gln Leu Met Leu Ser Lys Arg Phe
    130                 135                 140
Leu Ser Lys Arg Glu Pro Pro Ile Ser Leu Arg Asp Tyr Leu Leu Arg
145                 150                 155                 160
Leu His Arg Tyr Cys Pro Met Ser Thr Ala Val Tyr Leu Ala Thr Ser
                165                 170                 175
Ile Tyr Ile Thr Arg Leu Ala Thr Val Asp Arg Val Ile Ser Val Asn
            180                 185                 190
Gly Lys Asn Met His Arg Leu Val Leu Ala Gly Leu Arg Val Ala Met
        195                 200                 205
Lys Ala Leu Glu Asp Leu Ser Tyr Pro His Ser Arg Val Ala Lys Val
    210                 215                 220
Gly Gly Val Ser Glu Arg Glu Leu Ser Arg Leu Glu Ile Ser Phe Cys
225                 230                 235                 240
Phe Leu Thr Asp Phe Glu Leu Arg Val Asp Ala Gln Met Leu Ala Asp
```

```
                245                 250                 255
Gln Ala Gln Ser Arg Arg Ser Ser Met Asp Leu Val Leu Ser Glu Met
            260                 265                 270
Ala
```

<210> 38666
<211> 431
<212> PRT
<213> A.fumigatus

<400> 38666

```
Ile Arg Gly Ser Phe Arg Pro Arg Gly Glu Asn His Ser Gln Ala Thr
1               5                  10                  15
Leu Asp Gly Ile Met Gly Val Asn Ala Ala Glu Ser Ser Asp Pro Leu
            20                  25                  30
His Gln Glu Pro His Arg Leu Ser Leu Phe Ser Leu Pro Thr Gly Gln
        35                  40                  45
Val Phe Leu Lys Leu Glu Leu Asn His Ala Leu Ser Asp Gly Val Ser
    50                  55                  60
Thr Ala Leu Ile Phe Arg Asp Leu Ser Leu Ala Tyr Ser Lys Ala Leu
65                  70                  75                  80
Pro Ser Ser Pro Ala Pro Ser Phe Gly Gly Phe Ile Arg Arg Leu Asn
                85                  90                  95
Leu Gly Glu Ala Glu Ala Ser Ser Thr Ala Leu Lys Tyr Trp Thr Asp
            100                 105                 110
Arg Leu Thr Gly Met Val Pro Cys Leu Phe Pro Val Leu Arg Glu Ala
        115                 120                 125
Ala Trp Thr Gly Pro Ser Thr Val Gln His Val Glu Ile Pro Ile His
    130                 135                 140
Gly Ser Gln Gly Ala Leu Arg Arg Phe Cys Thr Gln His Gly Thr Thr
145                 150                 155                 160
Ile Ala Asn Val Phe Gln Thr Ala Trp Ala Leu Val Leu Ser Ile Tyr
                165                 170                 175
Thr Gly Thr Asn Asp Val Ser Phe Cys Tyr Leu Val Ser Gly Arg Asp
            180                 185                 190
Ala Ser Val Asp Asn Val Asp Glu Ile Val Gly Pro Leu Ile Ser Ile
        195                 200                 205
Met Val His Arg Leu Thr Leu Ser Arg Ser Leu Ala Leu Leu Gln Val
    210                 215                 220
Leu Arg Gln Val Gln Ser Asp Phe Thr Val Ala Leu Gly His Gln His
225                 230                 235                 240
Cys Ser Leu Ala Gln Ile Ala His Ser Leu Asn Leu Arg Gly Gln Pro
                245                 250                 255
Met Ser Asn Thr Val Val Asn Val Gln Arg Arg Phe Ser Gln Gly Gly
            260                 265                 270
Pro Asp Gly Val Ala Asp Val Tyr Ile Arg Gly Ile Asp Cys Cys Asn
        275                 280                 285
Pro Thr Glu Phe Ala Ile Ala Val Asp Val Glu Asp Trp Glu Thr Tyr
    290                 295                 300
Met Thr Ala Arg Leu Ser Tyr Trp Glu Ser Cys Ile Ser Gln Thr Gln
305                 310                 315                 320
Ala Glu Gly Ile Ala Glu Thr Leu Ala Glu Val Ile Arg Asn Ile Gln
                325                 330                 335
Thr Asn Pro Leu Gln Thr Val Gly Glu Val Ala Leu Val Gly Asp Ala
            340                 345                 350
```

```
Val Leu Ala Lys Leu Ser Thr Trp Asn Ala Val Leu Pro Glu Ala Asn
        355                 360                 365
Glu Ala Cys Leu Pro Glu Leu Val Glu Arg Gln Val Ile Ser Gln Pro
    370                 375                 380
Ser Ala Val Ala Ile Asp Thr Asp Ala Glu Gln Ile Thr Tyr Ile Ser
385                 390                 395                 400
Leu Trp Asn Leu Ser Gly Leu Leu Ala Gly Arg Leu Ile Asp Ser Gly
                405                 410                 415
Val Gln Pro Arg Asp Leu Val Ala Val Cys Val Pro Gln Ser Ser
            420                 425                 430
```

<210> 38667
<211> 71
<212> PRT
<213> A.fumigatus

<400> 38667

```
Ala Val Ile Ala Met Leu Ala Ile Gln Arg Ala Gly Gly Ala Cys Val
1               5                   10                  15
Pro Leu Asp Pro Lys Ala Pro Ala Gln Arg Trp Trp Glu Ile Ile Ser
            20                  25                  30
Arg Thr Gly Ile Ser Thr Val Val Thr Ser Glu Thr Lys Lys His Ile
        35                  40                  45
Met Ser Ser Gln Leu Pro Gly Leu Gln Val Val Ser Ala Asp Gly Thr
    50                  55                  60
Glu Ile Asp Gln His His Leu
65                  70
```

<210> 38668
<211> 198
<212> PRT
<213> A.fumigatus

<400> 38668

```
Gly Ser Gly Arg Val Leu Pro Val Leu Ser Val Asp Ser Thr Ala Tyr
1               5                   10                  15
Val Leu Phe Thr Ser Gly Ser Thr Gly Ser Pro Lys Gly Ile Asp Val
            20                  25                  30
Pro His Arg Ala Ile Cys Thr Ser Leu Cys Ala His Cys Pro Val Leu
        35                  40                  45
Gly Ile Thr Asn Glu Thr Arg Ser Leu Gln Phe Ala Ala Tyr Thr Phe
    50                  55                  60
Asp Ala Ser Ile Glu Glu Thr Phe Gly Val Leu Val His Gly Gly Cys
65                  70                  75                  80
Val Cys Ile Pro Ser Glu Asp Thr Lys Met Asn Gly Arg Leu Ser Ala
                85                  90                  95
Gly Pro Ser Ser His His Arg Trp Ser Gly Leu Ser Thr Leu Ile Ser
            100                 105                 110
Tyr Arg Leu Phe Lys Arg Leu Ser Trp Glu Val Lys Pro Leu Gly Thr
        115                 120                 125
Thr Ser Ser Ile Arg Gly Val Thr Glu Trp Thr Ser Ser Met Val Met
    130                 135                 140
Ala Pro Gln Lys His Pro Ser Val Ala Pro Pro Pro Ile Tyr Leu Tyr
145                 150                 155                 160
Gly Arg Arg Ser His His Pro Gln Leu Ala Val Arg Trp Asp Val Gly
                165                 170                 175
```

```
Ser Gly Ser Ser Thr Pro Arg Ile Ser Thr Gly Tyr Cys Pro Gln Thr
            180                 185                 190
Ala Leu Glu Ser Ser Leu
        195
```

<210> 38669
<211> 1228
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (389)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38669

```
Ala Ile Ser Trp Ala Phe Phe Thr Pro Ser Leu Val Arg Leu Ile Asp
1               5                   10                  15
Pro Asp Leu Val Pro Ser Leu Gln Thr Ile Val Leu Gly Gly Glu Ala
            20                  25                  30
Val Gly Asn Asp Ile Phe Asn Thr Trp Ser His Arg Val Asp Leu Ile
        35                  40                  45
Asn Gly Tyr Gly Pro Ala Glu Ala Ser Ile Cys Cys Ala Ala Ala His
    50                  55                  60
Leu Ser Leu Arg Gln Thr Gln Ser Pro Ser Thr Ile Gly Arg Ala Val
65                  70                  75                  80
Gly Cys Arg Ile Trp Val Val Asp Pro Gln Asn Ile Asn Arg Leu Leu
                85                  90                  95
Pro Pro Asp Cys Val Gly Glu Leu Leu Ile Glu Gly His Ile Val Ala
            100                 105                 110
Asn Gly Tyr Trp Gly Asp Glu Glu Arg Thr Ala Ser Ser Phe Leu Ser
        115                 120                 125
Pro Pro Glu Phe Leu Gln Ser Leu Ser Leu Glu Tyr Pro Ala Asp Asn
    130                 135                 140
Phe Arg Arg Cys Phe Tyr Arg Thr Gly Asp Leu Val Arg Gln Arg His
145                 150                 155                 160
Asp Gly Ser Leu Ile Tyr Val Gly Arg Ser Asp Trp Gln Thr Lys Val
                165                 170                 175
Asn Gly Gln Arg Val Glu Ile Gly Glu Val Glu Ala Gln Leu Ser Phe
            180                 185                 190
His Met Ala Lys Asn His Ser Asn His Leu Ser Met Val Cys Val Pro
        195                 200                 205
Lys Ser Gly Pro Trp Met Lys Arg Leu Val Ala Ile Leu Ser Leu Asp
    210                 215                 220
Pro Glu Glu Cys Thr Val Gly Asn Arg Ser Asn Val Val Phe Cys Leu
225                 230                 235                 240
Asp Lys Pro Glu Thr Ala Ala Met Ile Arg Thr Ile Ser Lys Gly Ile
                245                 250                 255
Glu Ser Ser Leu Pro Pro Phe Met Ile Pro Thr Val Trp Ile Pro Val
            260                 265                 270
Lys Gln Leu Pro Thr Leu Ala Ser Gly Lys Ile Asn Arg Arg Cys Val
        275                 280                 285
Gln Glu Trp Val Glu Thr Ser Asn Glu Gly Ile Phe Leu Ser Val Ser
    290                 295                 300
Arg Ile Asn Ser Glu Ala Phe Gly Thr Ser Ser Thr Glu Thr Thr Arg
305                 310                 315                 320
```

```
Gly Leu Thr Pro Thr Glu Thr Val Ile Arg Ala Ile Trp Ser Arg Val
                325                 330                 335
Leu Asn Ile Pro Leu His Ser Ile Gly Leu Asp Asn Thr Phe Phe Ser
            340                 345                 350
Phe Gly Gly Asp Ser Phe Ser Ala Met Gln Val Val Tyr Gln Ala His
        355                 360                 365
Arg Glu Gly Leu Thr Ile Ser Val Gln Asp Ile Phe His Cys Lys Thr
    370                 375                 380
Val Ala Lys Leu Xaa Arg His Ala Asp His Ser Ser Lys Asn Thr Ser
385                 390                 395                 400
Ser Ser Asn Leu Leu Ala Pro Pro Val Asp Glu Val Glu Val Pro Phe
                405                 410                 415
Ala Leu Ser Pro Ile Gln Gln Trp Phe Phe Glu Ser Val Pro His Lys
            420                 425                 430
Pro Ala Ile Leu Asn His Tyr Asn Gln Ser Ala His Phe Arg Val Met
        435                 440                 445
Lys Glu Ile Asp His Ser Gln Leu Phe Lys Ala Leu Gln His Val Val
    450                 455                 460
Gln Arg His Ala Met Leu Arg Ser Arg Phe Ile Leu Asp Ser Trp Ser
465                 470                 475                 480
Trp Gln Gln Lys Ile Thr Thr Asp Ile Glu Gly Ser Phe Arg Leu Glu
                485                 490                 495
Val Glu Ser Ile Asp Ala Ile Thr Ala Phe Arg Ser Cys Cys Glu Arg
            500                 505                 510
Ala Gln Lys Met Ile Asp Ile Ile His Gly Pro Leu Leu Val Ala Ile
        515                 520                 525
Leu Val Lys Val Ala Glu Pro Ala Gln His Phe Leu Val Leu Ile Gly
    530                 535                 540
His His Leu Ser Met Asp Val Val Ser Trp Ser Ile Ile His Arg Glu
545                 550                 555                 560
Leu Glu Ala Phe Leu Ala Gly Ser Gln Val Ile Ala Pro Leu Ser Ser
                565                 570                 575
Thr Ser Phe Gln Gln Trp Ala Arg Leu His Tyr Glu Pro Asn Ile Val
            580                 585                 590
Pro Ala Glu Pro Arg Glu Val Leu Pro Phe Ser Val Leu Glu Ala Asp
        595                 600                 605
Leu Asp Tyr Trp Gly Met Arg Asp Thr Ala Asn Glu Tyr Arg His Gly
    610                 615                 620
Glu Tyr Ile Thr Thr Ser Val Asp Glu Glu Thr Thr Ala Ser Ile Phe
625                 630                 635                 640
Lys Glu Ala Asn Ile Ala Ile Gly Thr Glu Pro Val Glu Leu Ile Met
                645                 650                 655
Ala Ala Val Leu Tyr Ser Phe Gly Arg Ile Phe His Asp Arg Ser Leu
            660                 665                 670
Pro Ala Leu Tyr Met Glu Ala His Gly Arg Glu Gly Asp Glu Phe Gly
        675                 680                 685
Leu Asp Leu Ser Gly Thr Val Gly Trp Phe Thr Thr Ile Cys Pro Leu
    690                 695                 700
Gln Leu His Arg Glu Ser Leu His Thr Trp Ala Arg Ala Val Ala Gln
705                 710                 715                 720
Val Lys Asp Arg Arg Arg Ser Ile Pro Ala Lys Gly Trp Ala Tyr Phe
                725                 730                 735
Ala Cys Arg Thr Val Ser Pro Lys Gly Gln Ala Ser Phe Asn His His
            740                 745                 750
Gln Gln Met Glu Ile Leu Phe Asn Phe Thr Gly Ser Thr Gly Asp Ile
        755                 760                 765
```

```
Asn Asp Glu His Asp Arg Phe Leu Ser Pro Val Arg Leu Met Glu Asp
    770                 775                 780
Ser Arg Ser Asp Phe Asp Pro Lys Thr Pro Arg Val Ala Leu Phe Ala
785                 790                 795                 800
Ile Glu Ala Ser Val Glu Asn Arg Gln Leu Arg Phe Ser Val Ser Tyr
                805                 810                 815
His Arg Ser Met Arg His Val Pro Arg Val Lys Gln Trp Ile His Ser
            820                 825                 830
Leu Pro Ser Thr Leu Gln Glu Gly Val Gln Met Leu Ser Thr Ile Gly
        835                 840                 845
Arg Gln Pro Thr Leu Tyr Asp Cys Pro Leu Ala Ala Leu Asn Tyr Ser
    850                 855                 860
Asp Leu Asp Ser Ile Leu Ala Arg Ile Gln Gln Ser Gln Ala Asp Met
865                 870                 875                 880
Val Val Glu Glu Ile Tyr Pro Cys Ser His Ile Gln Glu Gly Ile Leu
                885                 890                 895
Leu Ser Ser Met Arg Asn Pro Gly His Tyr Gln Val Arg Trp Leu Val
            900                 905                 910
Lys Val Glu Ala Arg Arg Gly Leu Pro Val Ser Thr Gln Arg Leu Ala
        915                 920                 925
Lys Ala Trp Gln Ser Val Val Arg Lys His Ser Ile Leu Arg Thr Ile
    930                 935                 940
Phe Val Asp Asp Pro Ser Gly Thr Ser Ser Phe Leu Gln Val Val Val
945                 950                 955                 960
Glu Asp Pro Arg Tyr Pro Ala Ser Ile Val Glu Val Gln His Arg Asp
                965                 970                 975
Ser Val Ala Ser Leu Asp Glu Asp Ile Asp Phe Thr Val Gly Glu Leu
            980                 985                 990
Pro Tyr Arg Ala Thr Ile Tyr Gln Leu His Asp Gly Asn Val Phe Phe
        995                 1000                1005
Leu Leu Asp Ile Ser His Ala Ile Leu Asp Gly Thr Ser Met Gly Ile
    1010                1015                1020
Leu Ala His Glu Leu Val Arg Gly Tyr Asp Gly Ser Leu Thr Gly Asp
1025                1030                1035                1040
Glu Ala Pro His Tyr Arg Asp Tyr Ile Arg Leu Leu Gln Thr Met Pro
                1045                1050                1055
Arg Asn Glu Thr Leu Ala His Trp Lys Ala Tyr Leu Gln Asp Ile Glu
            1060                1065                1070
Pro Cys Lys Met Ile Ser Arg Asn Asn Cys Val Glu Lys Val Ile Thr
        1075                1080                1085
Pro Glu Val Arg Lys Val Ala Val Gln Leu Pro Ser Thr Glu Ser Leu
    1090                1095                1100
Gln Gln Phe Cys Lys Thr Tyr Glu Val Thr Phe Ala Asn Ile Leu Gln
1105                1110                1115                1120
Ala Val Trp Ala Val Val Leu Met His Tyr Ser Gly Ser Glu Thr Val
                1125                1130                1135
Cys Phe Gly Tyr Leu Ser Ser Gly Arg Asp Leu Pro Ile Pro His Val
            1140                1145                1150
Asp Arg Ala Val Gly Pro Tyr Ile Asn Ile Leu Pro Cys Ala Val Arg
        1155                1160                1165
Leu Gln Gln Ser Ser Ser Arg Leu Asp Val Val Lys Ala Ile Gln Ala
    1170                1175                1180
Asp Leu Tyr Gln Asn Leu Ala His Glu His Cys Ser Leu Trp Gln Ile
1185                1190                1195                1200
His Lys Glu Leu Gly Leu Lys Gly Thr Ile Leu Ser Ser Thr Thr Gly
                1205                1210                1215
```

```
Arg Arg Thr Ile Arg Arg Arg Asp Leu Pro Gln Gly
            1220                1225

<210> 38670
<211> 62
<212> PRT
<213> A.fumigatus

<400> 38670
Ser Leu Ile Asn Gln Thr Glu Gly Val Gly Tyr Val Thr His Gly Leu
1               5                   10                  15
Gln Asp Thr Leu Phe Pro Gly Asp Glu Val Val Lys Thr Gln Tyr Gly
            20                  25                  30
Gly Cys His Gly Ala Met Lys Ala Cys Arg Gly Glu Val Ser Leu Ser
        35                  40                  45
Ser Tyr His Met Val Ser Leu Asp Leu Leu Asn Ser Gln Ala
    50                  55                  60

<210> 38671
<211> 293
<212> PRT
<213> A.fumigatus

<400> 38671
Gly Ala Arg Asn Gly His Ile Ala Lys Thr Phe Pro Ile Arg Lys Pro
1               5                   10                  15
Val Ser Tyr Trp Leu Asp Cys Gln Leu Arg Ser Cys Gln Phe Asn Met
            20                  25                  30
Thr Ile Asp Ser Asp Leu Asp Gln Asn Ser Ala His Ser Ile Val Val
        35                  40                  45
Glu Ser Val Asn Pro Asp Gly Met Ser Leu Asp Lys Ser Gly Thr Glu
    50                  55                  60
Leu Tyr Asn Ala Ala Val Ala Phe Cys Arg Tyr Glu Ser Glu Gln Gln
65                  70                  75                  80
Leu His Leu His Thr Ala His His Arg Leu Ser Ile Pro Asp Leu His
                85                  90                  95
Ile Met Ala Ser Ala Ala Gln Thr Gln Cys Gly Asn Arg Pro Leu Leu
            100                 105                 110
Ala Thr Thr Glu Ile Cys Ala Gly Gly Thr Tyr Ile Val Thr Gly Ala
        115                 120                 125
Asn Thr Gly Leu Gly Phe Glu Ala Ala Lys His Leu Val Gly Leu Glu
    130                 135                 140
Ala Ala Lys Val Ile Val Ala Val Arg Asn Ile Ser Ala Gly Glu Lys
145                 150                 155                 160
Ala Lys Lys Asp Ile Glu Glu Ser Thr Gly Arg Ile Gly Val Ala Glu
                165                 170                 175
Val Trp Pro Leu Asp Leu Ala Ser Tyr Asp Ser Val Lys Thr Phe Ala
            180                 185                 190
Gln Lys Ala Thr Thr Glu Leu Asp Arg Ile Asp Ala Val Ile Gly Asn
        195                 200                 205
Ala Ala Val Ala Val Ser Glu Arg Val Phe Ala Glu Gly His Ser Met
    210                 215                 220
Ser Val Thr Val Asn Val Leu Ser Thr Phe Leu Leu Ala Val Leu Ile
225                 230                 235                 240
Leu Pro Lys Met Arg Glu Thr Ala Glu Arg Tyr Gly Ile Val Pro His
                245                 250                 255
```

```
Leu Thr Leu Val Thr Ser Leu Val Gly Phe Asp Ala Lys Asp Leu Trp
            260                 265                 270
Asp Lys Ile Lys Asp Asp Pro Val Asn Lys Val Asp Gly Asp Asp Ile
        275                 280                 285
Pro Pro Met Arg Thr
    290
```

<210> 38672
<211> 101
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (96)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38672

```
Glu Leu Arg Ser Leu Leu Gly Gly Val Val Val Thr Glu Asp Phe Leu
1               5                   10                  15
Val Val His Asp Leu Val Gly Pro Thr Lys Thr Lys Ala Leu Ser Thr
            20                  25                  30
Val Thr Ala Ile Tyr Asp Val Gly Cys Phe Leu Gly Ser Ile Leu Ala
        35                  40                  45
Phe Ile Val Ser Glu Arg Leu Gly Arg Lys Lys Ser Ile Leu Leu Gly
    50                  55                  60
Asn Asn Ile Met Ala Val Arg Asn Ile Leu Gln Ala Ser Ser Tyr Ser
65                  70                  75                  80
Leu Ala Gln Met Phe Val Gly Arg Gly Tyr Ser Gly Val Gly Lys Xaa
                85                  90                  95
Phe Ser Asn Phe Ile
            100
```

<210> 38673
<211> 116
<212> PRT
<213> A.fumigatus

<400> 38673

```
Ala Leu Leu Arg Gln Arg Asn Lys Met Thr Val Pro Ser Ser Ser Ala
1               5                   10                  15
Ser Cys Pro Phe Cys Arg Ile Ala Ala Ala Tyr Pro Pro Ile Pro Pro
            20                  25                  30
Ser Ile Phe Arg Pro Gln His Lys Gln Asp Ser Ala Gln Glu Leu Ala
        35                  40                  45
Ile Ile Pro Thr Asp Thr Thr Gln Glu Thr His Ala His Leu Val Leu
    50                  55                  60
Ser Thr Pro Tyr Val Leu Ala Phe Leu Asp Ile Met Pro Leu Thr Arg
65                  70                  75                  80
Gly His Val Leu Val Val Thr Arg Asp His His Glu Lys Leu Lys Asp
                85                  90                  95
Met Asp Val Glu Val Ser Arg Glu Val Ser Ile Ser Ser Asn Leu Cys
            100                 105                 110
Leu Arg Val Thr
        115
```

<210> 38674
<211> 349
<212> PRT
<213> A.fumigatus

<400> 38674
Val Phe Phe Ser Gly Phe Pro Gln Ala Ala Val Pro Phe His Val Arg
1 5 10 15
Ser Val Thr Ile Leu Glu Gly Ile Gln Ile Gly Ile Phe Val Pro Arg
20 25 30
Ala Tyr Ile Ile Arg Gln Arg Tyr His Ile Ile Cys Ile Ala Asp Arg
35 40 45
Lys Glu Gln Ser Pro Tyr Cys Ile Val Lys Leu Ala Asn Glu Glu Ala
50 55 60
Ala Arg Gly Leu Ile Ala Arg Ser Ile Leu Ala Lys Asp Ile Phe Glu
65 70 75 80
Leu Trp Ala Gln Gly Thr Asn Tyr Glu Glu Val His Ser Asp Val Arg
85 90 95
Arg Arg Thr Gln His Arg Trp Asn Asn Tyr Lys Glu Val Ser Phe Arg
100 105 110
Phe Thr Ile Glu Ser Phe Ala Gly Lys Arg Ser Asn Glu Glu Lys Arg
115 120 125
Glu Ile Ile Gln Ser Phe Ala Tyr Leu Asp Phe Gln Gly Pro Ile Arg
130 135 140
Met Lys Asn Pro Asp Glu Asp Phe Trp Val Leu Glu Glu Tyr Ile Pro
145 150 155 160
Asp Val Ala Ile Ser Lys Arg Thr Thr Ser Pro Ser Lys Thr Arg Pro
165 170 175
Ala Glu Leu Gln Thr Pro Gln Lys Ile Tyr Phe Gly Arg Trp Val Ala
180 185 190
Asn Ser Ser Arg Glu Ala Ile Asn Lys Tyr Asp Leu Lys Lys Arg Arg
195 200 205
Tyr Ile Ser Thr Thr Ser Met Asp Ala Glu Leu Ser Leu Val Thr Ala
210 215 220
Asn Met Ala His Ala Ala Pro Gly Lys Leu Phe Phe Asp Pro Phe Val
225 230 235 240
Gly Thr Gly Ser Phe Cys Val Ala Ala Ala His Phe Gly Ala Leu Thr
245 250 255
Leu Gly Ser Asp Ile Asp Gly Arg Ser Phe Arg Gly Lys Glu Met Gly
260 265 270
Lys Gly Lys Pro Met Gly Val Leu Ser Asn Phe Gln Gln Tyr Gly Thr
275 280 285
Gln Ser Lys Phe Val Asp Val Phe Thr Ser Asp Leu Thr Asn Thr Pro
290 295 300
Leu Arg Ser Ser Gln Phe Leu Asp Gly Ile Thr Cys Asp Pro Pro Tyr
305 310 315 320
Gly Val Arg Glu Gly Leu Arg Val Leu Gly Thr Arg Asp Gly Arg Gly
325 330 335
Lys Glu Glu Val Leu Ile Asp Gly Val Pro Ala His Leu
340 345

<210> 38675
<211> 156
<212> PRT
<213> A.fumigatus

<400> 38675
Thr Thr Trp Ser Gly Thr Phe Gln Pro Arg Gly Glu Asp Thr Glu Lys
1 5 10 15
Lys Phe Ser Pro Thr His Ala Phe Ile Lys Leu Leu Gln Asp Gln Gly
20 25 30
Lys Leu Leu Thr Asn Tyr Thr Gln Asn Ile Asp Asn Ile Glu Ala Asn
35 40 45
Ala Gly Ile Leu Pro Glu Lys Ile Leu Gln Cys His Gly Ser Phe Ala
50 55 60
Thr Ala Thr Cys Val Lys Cys His His Lys Val Lys Gly Glu Glu Ile
65 70 75 80
Phe Asp Asp Ile Lys Lys Gly Ile Val Pro Glu Cys Val Ala Cys Lys
85 90 95
Glu Ser Leu Glu Asp Asp Ser Leu Lys Pro Gln Gly Leu Lys Arg Lys
100 105 110
Arg Met Ser Asn Gly Thr Gln Lys Ser Arg Lys Lys Asp Gly Glu Asp
115 120 125
Ser Ser Glu Glu Glu Asp Tyr Glu Ile Pro Thr Pro Gly Val Met Lys
130 135 140
Val Ser Arg Lys Tyr His Glu Gly Ala Lys Ser Asn
145 150 155

<210> 38676
<211> 88
<212> PRT
<213> A.fumigatus

<400> 38676
Pro Asp Ile Thr Phe Phe Gly Glu Asp Leu Pro Asp Glu Phe Gly Arg
1 5 10 15
Arg Leu Leu His His Asp Arg Asp Lys Val Asp Leu Val Ile Val Ile
20 25 30
Gly Thr Ser Leu Lys Val Ala Pro Val Ala Glu Val Pro Gly Val Leu
35 40 45
Pro Arg Asn Val Pro Gln Ile Tyr Ile Ser Arg Thr Val Arg Tyr Ala
50 55 60
Ser Ile Pro Trp Ala Ile Leu Ala Leu Glu Leu Thr His Phe Leu Ala
65 70 75 80
Cys Asp Ala Tyr Val Leu Arg Tyr
85

<210> 38677
<211> 83
<212> PRT
<213> A.fumigatus

<400> 38677
Thr Ser Gly Thr Ser Ile Leu Gly Asp His Pro Tyr Ser Gly Thr Pro
1 5 10 15
Gln Asn Gln Lys Val Trp Ser Asp Glu Lys Asp Asp Val Tyr Ala Met
20 25 30
Glu Lys Asn His Pro Glu Arg Tyr Gly Gln Arg Val Thr Asp Val Thr
35 40 45
Val Val Glu Thr Gly Leu Ser Leu Gly Val Lys Thr Tyr Ile Val Val
50 55 60
Pro Pro Thr Ile Cys Met Leu Phe Ile Pro Val Lys Gln Tyr Gln Gly

65 70 75 80
Gly Leu Asn

<210> 38678
<211> 105
<212> PRT
<213> A.fumigatus

<400> 38678
Ile Trp Asn His Val His Ile Leu Asp Leu Ala Asn Phe Tyr Leu Leu
1 5 10 15
Leu Phe Arg Ala Val Arg Glu Gln Pro Asp Trp Leu Pro Ser Gly Pro
20 25 30
Lys Ala Ile Phe Phe Val Glu Ser Gly Glu His Thr Trp Leu Gln Val
35 40 45
Ser Gln Gly Ile Ala Asp Ala Leu His Lys Gln Gly Leu Leu Asp Ser
50 55 60
Asn Lys Val Glu Ser Ile Ser Met Lys Asp Ala Ala Ala Glu Ile Thr
65 70 75 80
Arg Gly Asn Glu Ser Leu Val Glu Ile Thr Leu Ala Ser Lys Tyr Val
85 90 95
Arg Asp Leu Leu Gly Thr Tyr Arg Tyr
100 105

<210> 38679
<211> 145
<212> PRT
<213> A.fumigatus

<400> 38679
Arg Lys Gly Ile Lys Gly Gln Arg His Leu Ser Ser Ala Ala Glu Ser
1 5 10 15
Ile Lys Tyr Ser Ile Gly Gln Ser His Ser Thr Val Asn Asn Pro Ser
20 25 30
Ser Ser Asn Ile Met Val Ser Phe Ser Tyr Leu Leu Leu Ala Cys Ser
35 40 45
Ala Ile Gly Ala Leu Ala Ala Pro Val Glu Pro Glu Thr Thr Ser Phe
50 55 60
Asn Glu Thr Ala Leu His Glu Phe Ala Glu Arg Ala Gly Thr Pro Ser
65 70 75 80
Ser Thr Gly Trp Asn Asn Gly Tyr Tyr Tyr Ser Phe Trp Thr Asp Gly
85 90 95
Gly Gly Asp Val Thr Tyr Thr Asn Gly Ala Gly Gly Ser Tyr Ser Val
100 105 110
Asn Trp Arg Asn Val Gly Asn Phe Val Gly Gly Lys Gly Trp Asn Pro
115 120 125
Gly Ser Ala Arg Tyr Arg Ala Leu Ser Thr Ser Asp Val Gln Thr Cys
130 135 140
Gly
145

<210> 38680
<211> 188
<212> PRT
<213> A.fumigatus

<400> 38680
Leu Leu Leu Arg Gln Leu Gln Pro Met Ala Gly Arg Ser Gln Pro Ser
1 5 10 15
Val Gly Ser Ala Ser Ala Asn Leu Ser Gln Gly Asn Asp Asp Gln Met
20 25 30
Phe Trp Gly Leu Ala Ser Ile Thr Ala Ser Glu Thr Gly Phe Pro Glu
35 40 45
Ile Ser Gly Lys Pro Thr Trp Thr Ser Leu Ala Arg Val Val Phe Asn
50 55 60
Met Gln Val Ala Arg Trp Asp Lys Val Ala Cys Asp Gly Gly Met Arg
65 70 75 80
Trp Gln Ile Trp Pro Tyr Gln Ala Gly Tyr Thr Met Lys Asn Ala Ile
85 90 95
Ser Asn Gly Gly Leu Phe Glu Leu Ser Ala Arg Leu Ala Arg Phe Thr
100 105 110
Lys Asn Glu Thr Tyr Ala Glu Trp Ala Asn Lys Ile Trp Asp Trp Ser
115 120 125
Ala Ser Thr Pro Leu Leu Gln Thr Asp Arg Trp Tyr Ile Ala Asp Ser
130 135 140
Thr Ser Asn Glu Ala Asn Cys Lys Asp Ala Gly Asn Thr Gln Trp Ser
145 150 155 160
Tyr Asn Tyr Gly Thr Tyr Leu Ser Gly Ala Ser Phe Met Tyr Asn Tyr
165 170 175
Val Ser Arg Ser Ser Thr Leu Ala Arg Leu Val Ser
180 185

<210> 38681
<211> 196
<212> PRT
<213> A.fumigatus

<400> 38681
Cys Ser Met Ala Gly Lys Thr Asn Gly Glu Asp Lys Trp Leu Lys Arg
1 5 10 15
Val Asn Gly Leu Leu Asp Ser Leu Ile Gly Thr Phe Cys Pro Lys Asp
20 25 30
Lys Gly Gly Asn Val Leu Ser Glu Val Ala Cys Glu Pro Ile Met Thr
35 40 45
Cys Asp Arg Asn Gln Ile Gly Phe Lys Gly Tyr Thr Ala Met Trp Leu
50 55 60
Ala His Thr Ala Ile Leu Val Pro Ser Thr Ala Ala Arg Ile Phe Pro
65 70 75 80
Val Leu Gln Gly Ser Ala Leu Ala Leu Ser Lys Gln Cys Ser Lys Ala
85 90 95
Pro Asp Asn Thr Cys Gly Val Arg Trp Trp Gln Pro Thr Trp Asp Gly
100 105 110
Phe Thr Pro Gly Leu Glu Thr Gln Met Ala Ala Leu Ala Gly Ile Thr
115 120 125
Ala Asn Leu Met Tyr Tyr Lys Ser Ser Ala Pro Lys Thr Ile Gln Ser
130 135 140
Asn Pro Asp Gly Lys Glu His Gln Ile Asp Thr His Glu Asp Glu Ala
145 150 155 160
Pro Asp Ala Leu Ala Pro Ile Asn Thr Gly Asp Arg Ala Gly Ala Trp
165 170 175
Ile Leu Thr Val Ile Ile Val Val Ala Val Gly Gly Ser Val Gly Trp

```
            180                 185                 190
Leu Ile Lys Thr
        195

<210> 38682
<211> 181
<212> PRT
<213> A.fumigatus

<400> 38682
Pro Thr Pro Met Ala Pro Val Ala Arg Thr Pro Ser Thr Gly Gly Thr
1               5                  10                  15
Trp Ala Thr Leu Ser Val Glu Arg Ala Gly Thr Leu Glu Ala Leu Gly
            20                  25                  30
Thr Glu Leu Cys Gln Arg Arg Met Cys Arg Pro Val Ala Asp Arg Ser
        35                  40                  45
Arg Thr Ile Asn Tyr Gly Gly Ser Phe Asn Pro Ser Gly Asn Gly Tyr
    50                  55                  60
Leu Ala Val Tyr Gly Trp Thr Thr Asn Pro Leu Ile Glu Tyr Tyr Val
65                  70                  75                  80
Val Glu Ser Tyr Gly Thr Tyr Asn Pro Gly Ser Gly Gly Thr Phe Arg
                85                  90                  95
Gly Thr Val Asn Thr Asp Gly Gly Thr Tyr Asn Ile Tyr Thr Ala Val
            100                 105                 110
Arg Tyr Asn Ala Pro Ser Ile Glu Gly Thr Lys Thr Phe Thr Gln Tyr
        115                 120                 125
Trp Ser Val Arg Thr Ser Lys Arg Thr Gly Gly Thr Val Thr Met Ala
    130                 135                 140
Asn His Phe Asn Ala Trp Ser Arg Leu Gly Met Asn Leu Gly Thr His
145                 150                 155                 160
Asn Tyr Gln Ile Val Ala Thr Glu Gly Tyr Gln Ser Ser Gly Ser Ala
                165                 170                 175
Ser Ile Thr Val Tyr
            180

<210> 38683
<211> 132
<212> PRT
<213> A.fumigatus

<400> 38683
Trp Ser Asp Ser Leu Lys Ser Ala Ala Lys Thr Val Ala Ala Pro Met
1               5                  10                  15
Met Asp Phe Tyr Asp Lys Asn Gln Thr Glu Gly Ile Pro Gly Lys Leu
            20                  25                  30
Thr Gly Thr Trp Tyr Val Ala Gly Ala Met Phe Met Thr Leu Ile Gln
        35                  40                  45
Tyr Trp Gln Ser Ser Gly Asp Asp Thr Tyr Asn Ser Ile Val Ser His
    50                  55                  60
Asp Leu Met Phe Gln Ser Gly Glu Asn Tyr Asp Phe Phe Ser Gly Asn
65                  70                  75                  80
Tyr Ser Gln Trp Leu Val Gly Arg Asn His Leu Ser Gly Leu Pro Leu
                85                  90                  95
Leu Thr Ser Pro Arg Val Thr Met Ile Arg Cys Ser Gly Val Ser Pro
            100                 105                 110
Pro Ser Arg Leu Arg Arg Arg Asp Ser Arg Lys Ser Gln Ala Asn Pro
```

115 120 125
Pro Gly Pro Leu
130

<210> 38684
<211> 102
<212> PRT
<213> A.fumigatus

<400> 38684
Ser Val Glu Gln Pro Ile His Val Leu Ile Ala Ser Thr Gln Tyr Gly
1 5 10 15
Val Tyr Tyr Arg Arg Pro Tyr Val Thr Leu Ser Thr Thr Asp Ser Ala
20 25 30
Gln Leu Lys Leu Ile Val Ala Asp Leu Arg Ala Lys Pro Asp Pro Glu
35 40 45
Cys Ile Ser Lys Leu His Ala Lys Leu Leu Glu Ala Ser Ala Val Tyr
50 55 60
Ser Lys Asp Lys Glu Thr Leu Ser Trp Phe Val Met Gln Ser Val His
65 70 75 80
Asp Lys Gln Asp Phe Cys Ile Val Glu Arg Tyr Leu Asn Glu Gly Ser
85 90 95
Gln Lys Tyr His Leu Glu
100

<210> 38685
<211> 86
<212> PRT
<213> A.fumigatus

<400> 38685
Phe Gly Glu Phe Asn Cys His Leu Gly Cys Ala Leu His Val Gly Leu
1 5 10 15
Asp Gln Arg Pro Val Gly Asn His Thr Leu Ser Ala Thr Lys Phe Leu
20 25 30
Tyr Phe Cys Lys Tyr Glu Arg Arg Val Val Ala Ser Ser Val Thr Leu
35 40 45
Asp Phe Gly Gln Thr Asp Arg Leu Phe Tyr Tyr Tyr Val His Phe Ala
50 55 60
Phe Gly Asp Arg Leu Phe Arg Trp His Trp Ile Gly Lys Met Asp Thr
65 70 75 80
Arg Ala Tyr Arg Lys Leu
85

<210> 38686
<211> 141
<212> PRT
<213> A.fumigatus

<400> 38686
Met Leu Ala Gly Arg Asp Glu Gln Ser Ile Ser Ala Phe Tyr Ala Glu
1 5 10 15
Thr Phe Phe His Thr Gly Pro Pro Ser Leu His Ile Arg Leu Leu Ser
20 25 30
Arg Thr Val Gly Pro Asp Arg Ile Val Asp Glu Ile Leu Leu Val Phe
35 40 45

```
Arg His Thr Glu Glu Ile Pro Trp Leu Leu Pro Arg Val Pro Pro Thr
    50                  55                  60
Asp Arg Asp Val Lys Ile Val Leu Val Met Thr Ala Ser Phe Arg Ala
65                  70                  75                  80
Gly Lys Leu Ser Arg Gln Asn Ile Tyr Trp Asp Gln Ala Ser Val Leu
                85                  90                  95
Val Gln Ile Gly Leu Leu Asp Pro Ala Leu Val Pro Gly Ser Phe Arg
            100                 105                 110
Ala Thr Gly Lys Thr Arg Glu Gly Arg Gln Asp Val Glu Met Leu Pro
        115                 120                 125
Val Val Gly Ala Glu Ala Val Glu Arg Val Leu Asn Gly
    130                 135                 140
```

<210> 38687
<211> 136
<212> PRT
<213> A.fumigatus

<400> 38687

```
Ile Val Tyr Ser Gly Ala Val Cys Ser Lys Arg Pro Pro Ile Val Thr
1               5                   10                  15
Met Arg Pro Ser Thr Val Val Ala Ala Leu Cys Gly Leu Leu Phe Ser
            20                  25                  30
Ser Ser Leu Val Cys Ala Asp Ser Ser Thr Ser Ser Arg Val Ala Leu
        35                  40                  45
Pro Ala Asp Phe Lys Pro Gln Gln Val Phe Lys Asn Val Asn Leu Val
    50                  55                  60
Arg Asn Thr Asn Leu Glu Lys Gly Tyr Val Arg Glu Thr Val Asn Val
65                  70                  75                  80
Ile Val Glu Asn Val Asp Lys Gln Pro Gln Ser Asp Tyr Tyr Ile Pro
                85                  90                  95
Phe Pro Ser Asp Val Phe Gly Lys Val Gly Gly Leu Glu Val Arg Asp
            100                 105                 110
Lys Lys Thr Pro Gly Lys Gly Arg Phe Ala Val Glu Ala Leu Glu Val
        115                 120                 125
Glu Ser Pro Arg Tyr Val Cys Asn
    130                 135
```

<210> 38688
<211> 436
<212> PRT
<213> A.fumigatus

<400> 38688

```
Ser Pro Arg Asn Ala Arg Ala Asp Gln Ala Thr Ser Glu Thr Gly Val
1               5                   10                  15
Gly His Lys Pro Leu Thr Lys Ser Ser Ile Glu Gln Leu Gly Lys Ala
            20                  25                  30
Asp Val Leu Val Ala Gly Ser Leu Ala Ile Asp Leu Ser Cys Asp Tyr
        35                  40                  45
Thr Pro Phe Ala Ile Glu Ser Asp Lys Ile Thr Pro Val Pro Gln Thr
    50                  55                  60
Ser Asn Pro Ala Val Ile Gly Gln Ser Leu Gly Gly Val Gly His Asn
65                  70                  75                  80
Val Ala Ile Ala Ser His Tyr Leu Gly Ser Ser Val Leu Phe Cys Ser
                85                  90                  95
```

```
Val Val Gly Asp Asp Leu Ser Gly Arg Ala Ala Leu Ser Thr Leu Gln
            100                 105                 110
Glu Glu Gly Leu Pro Thr Ala Gly Val Gln Ile Leu Pro Ala Ser Ser
        115                 120                 125
Gly Ala Arg Thr Ala Gln Tyr Val Ala Ile Asn Asp Ala Lys Arg Asp
    130                 135                 140
Leu Val Val Ala Met Ala Asp Met Gly Ile Met Glu Leu Pro Glu His
145                 150                 155                 160
Val Leu Asp Phe Asp Gly Phe Trp Asp Pro Leu Ile Arg His Thr Gln
                165                 170                 175
Pro Gln Trp Val Val Val Asp Ala Asn Trp Ser Pro Ala Val Leu Ala
            180                 185                 190
Arg Trp Ile Ala Val Ala Lys Gln His Gly Ala Arg Val Ala Phe Glu
        195                 200                 205
Pro Val Ser Thr Ala Lys Ser Arg Arg Leu Phe Ser Lys Thr Ser Glu
    210                 215                 220
Ala Asp Ala Val Ile Gln Pro Ala Lys Ala Val Pro Asn Asn Ala Ile
225                 230                 235                 240
Ser Leu Ala Ala Pro Asn Gln Tyr Glu Leu Ser Ala Met Tyr Thr Thr
                245                 250                 255
Ala Arg Glu Ser Gly Leu Phe Glu Glu Ser Glu Gly Trp Trp Arg Ile
            260                 265                 270
Ile Asp Ala Met Gly Met Ser Ala Thr Gly Ser Arg Asp Arg Leu Val
        275                 280                 285
Ala Met Thr Thr Ala Glu Leu Val Asp Gln Gly Ile Pro Gln Gln Ser
    290                 295                 300
Ile Gln Leu Ile Pro Phe Ile Pro Cys Ile Ile Thr Lys Leu Gly Ala
305                 310                 315                 320
Gln Gly Val Leu Val Thr Gln Leu Leu Arg Pro Gly Asp Ala Arg Leu
                325                 330                 335
Thr Ser Pro Asp Ser Ala Pro Tyr Ile Leu Ser Arg Ala Ser Pro Thr
            340                 345                 350
Asp Glu Leu Ile Gly Gly Val Tyr Met Arg Leu Phe Pro Ser Ala Gly
        355                 360                 365
Val Leu Ala Asp Arg Glu Ile Val Ser Val Asn Gly Ala Gly Asp Thr
    370                 375                 380
Leu Leu Gly Ala Val Val Ala Gly Leu Ala Lys Trp Ser Gly Lys Ser
385                 390                 395                 400
Val Glu Glu Val Ile Pro Leu Ala Gln Glu Ala Ser Leu Arg Thr Leu
                405                 410                 415
Lys Ser Pro Gly Gly Val Ser Arg Asp Leu Val Thr Leu Arg Ser Leu
            420                 425                 430
Met Ala Ala Leu
        435
```

<210> 38689
<211> 166
<212> PRT
<213> A.fumigatus

<400> 38689

```
Gln Leu Cys Thr Asp Thr Arg Cys Arg Met Ile His Thr Ile Gly Thr
1               5                   10                  15
Thr Ala Leu Leu Ser Thr His Ser Gly Pro Ser Leu Pro Leu Arg Arg
            20                  25                  30
Gln Pro Leu Ala Thr Phe Pro His Pro Ala Ser Pro Pro Ser Ser Cys
```

```
        35                  40                  45
Pro Ser Arg Gly Asn Ser Leu Ala Arg Ala Pro Asp Pro Thr Thr Gln
    50                  55                  60
Ser Ala Pro Ala His Ser Pro Asp Pro Ser Ile Tyr Ser Ala Gly Arg
65                  70                  75                  80
Ala Cys Pro Arg Gly Asn Trp Pro Ser Ser Gln Ala Gln Ser Ser Arg
                85                  90                  95
Arg Gly Pro Trp Ala Val Pro Ala Ala Ala Thr Arg Val Ser Pro Arg
            100                 105                 110
Tyr Ala Glu Thr Pro Ala Gly Ser Arg Arg Arg Cys Gly Pro Ala Arg
        115                 120                 125
Arg Cys Ala Arg Ala Ser Gly Cys Ala Val Met Gly Gly Arg Tyr Gly
    130                 135                 140
Arg Thr Phe Pro Arg Lys Lys Leu Lys Ser Thr Ala His Pro Phe Leu
145                 150                 155                 160
Pro Thr Phe Ser Lys Arg
                165
```

<210> 38690
<211> 80
<212> PRT
<213> A.fumigatus

<400> 38690

```
Tyr Cys Ser Ala Leu Arg Thr Ala Leu Val Met Leu Ser Gln Ala Ala
1               5                   10                  15
Thr Arg Leu Cys Cys Arg Val Arg Gly Pro Ala Ile Arg Ala Pro Arg
            20                  25                  30
Ala Ile Arg Ser Tyr His Asp Val Ala Gln Ser Lys Phe Leu Lys Val
        35                  40                  45
Ser Glu Glu Ile Arg Asp Ala Val Ala Thr Gly Lys Pro Val Val Ala
    50                  55                  60
Leu Glu Ser Thr Ile Tyr Thr His Gly Met Ser Gly Ser Ile Gln Ile
65                  70                  75                  80
```

<210> 38691
<211> 60
<212> PRT
<213> A.fumigatus

<400> 38691

```
Arg Ser Arg Leu Tyr Met Arg Pro Gly Thr Met Thr Ser Lys Tyr Gly
1               5                   10                  15
Ser Leu Ile Tyr Leu Thr Asp Leu Phe Gln Gly Met Ala Gly Arg Arg
            20                  25                  30
Leu His Gly Gly Thr Thr Val Ser Gly Thr Met Val Leu Ala His Leu
        35                  40                  45
Ala Gly Ile Lys Val Phe Gly Thr Gly Gly Leu Gly
    50                  55                  60
```

<210> 38692
<211> 96
<212> PRT
<213> A.fumigatus

<400> 38692

```
Pro Glu Arg Asp Ala Ala Asp Leu Thr Glu Leu Gly Arg Thr Pro Val
1               5                  10                  15
Ala Val Val Ser Ser Gly Cys Lys Ser Phe Leu Asp Ile Pro Arg Thr
            20                  25                  30
Leu Glu Phe Leu Glu Thr Glu Gly Val Cys Val Gly Thr Phe Ala Asp
        35                  40                  45
Gly Arg Glu Gly Ser Val Asp Phe Pro Ala Phe Phe Ser Arg Asp Ser
    50                  55                  60
Gly Ile Lys Ser Pro Arg Val Ile Arg Asp Glu Ala Glu Ala Ala Ala
65                  70                  75                  80
Ile Ile Cys Lys Glu Pro Gly Leu Ser Ser Ser Val Gly Leu Ser Tyr
                85                  90                  95
```

<210> 38693
<211> 80
<212> PRT
<213> A.fumigatus

<400> 38693

```
Gln Ala Arg Leu Ile Ser Leu Val Gly Phe Pro Tyr Pro Glu Asn Val
1               5                  10                  15
Ala Leu Ala Ser Leu Leu Glu Ser Val Val Arg Val Asn Gly Gly Ile
            20                  25                  30
Pro Ala Thr Ile Gly Ile Leu Asn Gly Val Ala Arg Val Gly Leu Ser
        35                  40                  45
Ala Glu Glu Leu Thr Glu Leu Ala Ser Thr Ala Glu Lys Lys Asp Ala
    50                  55                  60
Leu Lys Val Ser Arg Arg Asp Leu Gly Tyr Ile Cys Gly Leu Val Arg
65                  70                  75                  80
```

<210> 38694
<211> 130
<212> PRT
<213> A.fumigatus

<400> 38694

```
Ser Glu Met Lys Arg Lys Gln Leu Arg Ser Tyr Val Arg Ser Gln Gly
1               5                  10                  15
Ser Leu Pro Gln Leu Ala Tyr Arg Thr Asp Thr Lys Thr Asp Ala Gln
            20                  25                  30
Ser Lys Leu Pro Val Ser Ser Gly Ile His Phe Ala Asn Pro Val Pro
        35                  40                  45
Ala Glu Gln Ser Ile Pro Lys Gly Glu Met Asp Ile Ile Ile Glu Glu
    50                  55                  60
Ala Ile Arg Leu Ala Glu Val Glu Gly His Arg Gly Ser Asp Asn Thr
65                  70                  75                  80
Pro Phe Val Leu Ala Lys Ile Lys Glu Leu Ser Gly Gly Lys Ser Val
                85                  90                  95
Ile Ala Asn Arg Ala Leu Val Glu Ala Asn Val Lys Arg Ala Thr Lys
            100                 105                 110
Val Ala Val Glu Leu Ser Lys Leu Glu Gln Ala Asp Arg Gly Thr Gly
        115                 120                 125
Gly Arg
    130
```

<210> 38695

<211> 199
<212> PRT
<213> A.fumigatus

<400> 38695
Val Tyr His His Ala Ser Thr Ser His Glu Leu Ser Leu Ile Asn Thr
1 5 10 15
Arg Trp Lys Lys Glu Trp Trp Ser Gln Pro Asp Asn Arg Ala Asp Gln
20 25 30
His Ile Lys Ile Lys Tyr Gly Trp Ser Glu Asp Trp Gly Tyr Trp Ile
35 40 45
Lys Val Met Asp Asp Arg Leu Glu Met Ala Asp Asp Trp His Ser Arg
50 55 60
Tyr Asn Thr Leu Ala Glu Leu Asp Arg Phe Arg Ala Ser Val Leu Asp
65 70 75 80
Gly Gly Arg Glu Gly Cys Tyr Leu Ser Val Tyr Thr Gly Pro Arg Gly
85 90 95
Arg Gly Lys Arg Val Asp Phe Glu Val Met Met Asp Leu Trp Glu Leu
100 105 110
Tyr Lys Val Ala Asn Ser His Ile Leu Ser Glu Phe Arg Asn Leu Ser
115 120 125
Lys Arg Glu Ile Asp Glu Val Ser Asp Thr Val Glu Ala Lys Ile Ile
130 135 140
Asp Glu Trp Val Asn Pro Trp Ala Arg Lys Cys Glu Cys Gln Asp Cys
145 150 155 160
Glu Ala Phe Asp Ala Leu Val Ala Ala Asn Asn Lys Lys Asn Glu Ser
165 170 175
Asp Glu Asn Asp Asn Asp Glu Glu Glu Asp Glu Asp Glu Asp Glu Asp
180 185 190
Glu Asp Glu Asp Glu Asp Asp
195

<210> 38696
<211> 233
<212> PRT
<213> A.fumigatus

<400> 38696
Glu Pro Met Met Val Gly Thr Gly Leu Ser Leu Thr Lys Ala Leu Phe
1 5 10 15
Leu Pro Ser Gln Asp Val Thr Ile Ser Thr Leu Val Cys Arg Pro Phe
20 25 30
Gln Ser Arg Ser Leu Thr Asn Glu Ala Thr Gly Leu Phe Cys Pro Phe
35 40 45
Ala His Arg Pro Asn Leu Val Arg His Val Ser Val Leu Thr Asp Ile
50 55 60
Ile Ser Leu Ser Val Val Arg Pro Tyr Pro Asn Ile Lys Gly Glu Gly
65 70 75 80
Leu Arg Phe Pro Lys Thr Asn Asp Glu Tyr Pro Gly Ala Thr Val Asp
85 90 95
His Leu Tyr Gly Ser Glu Phe Leu Arg Glu Ile Tyr Leu Arg Ala Asp
100 105 110
Lys Asp Tyr Lys Gly Pro Tyr Ser Val Pro Val Leu Trp Asp Lys Glu
115 120 125
Thr Glu Thr Ile Val Ser Asn Asp Ser Ala Glu Met Leu Arg Trp Leu
130 135 140

```
Pro Asn Ala Phe Asp Pro Ile Leu Pro Val Val His Lys Arg Val His
145                 150                 155                 160
Leu Tyr Pro Glu Ala Leu Arg Ser Gln Ile Asp Glu Ile Thr Ala Trp
                165                 170                 175
Met Gln Pro Asp Leu Asn Ala Arg Arg Leu Lys Gly Arg Lys Arg Gly
            180                 185                 190
His Ser Ser Arg Leu Arg Thr Ile Gly Ser Ala Gly Leu Ser Asn Ala
        195                 200                 205
Gln Pro Thr Pro Ala Thr His Pro Arg Gln Trp Gly Ser Val His Ser
    210                 215                 220
Arg Leu Ala Tyr Ser Pro Lys Ser Ile
225                 230
```

<210> 38697
<211> 291
<212> PRT
<213> A.fumigatus

<400> 38697

```
Ile Ala Phe Gln Asn Ala Glu Ser Arg Gly Gln Ile Tyr Lys Tyr Leu
1               5                   10                  15
Arg Ser Ser Cys Asp Arg Arg Tyr Cys Ile Tyr Pro Gly Asn Gln Asn
            20                  25                  30
Ile Ser Arg Asn His Gly Gly Asp Ser Thr Leu Leu Val Thr Thr Val
        35                  40                  45
Leu Arg Lys Met Gly Arg Pro Ser Gly Leu Leu Leu Ser Ile Ser Ala
    50                  55                  60
Leu Leu Ala Ala Val Leu Ser Pro Ala Ala Ala Ala Lys Asn Gly Ser
65                  70                  75                  80
Thr Leu Phe Lys Gly Gly Thr Ile Ile Ala Phe Asn Glu Lys Lys Gln
                85                  90                  95
Asp Leu Asp Ile Ile Arg Gly Gly Ser Leu Leu Ile Ser Asp Gly Ile
            100                 105                 110
Val Ser Ala Ile Thr Glu Gly Ala Tyr Asp Lys Pro Leu Pro Pro Gly
        115                 120                 125
Thr Glu Ile Val Asp Ala Thr Gly Asp Ile Leu Thr Pro Gly Phe Ile
    130                 135                 140
Asp Thr His Arg His Gly Trp Gln Thr Ala Tyr Arg Thr Ile Gly Ser
145                 150                 155                 160
Asn Thr Thr Leu Ala Glu Tyr Phe Asn Arg Tyr Gly Glu Phe Ala Ala
                165                 170                 175
Asp Gly Ile Trp Ser Ala Asp Asp Val Tyr Val Ser Gln Leu Thr Gly
            180                 185                 190
Leu Tyr Glu Ala Leu Asn Ala Gly Val Thr Thr Thr Leu Asp His Ala
        195                 200                 205
His Asn Thr Trp Ser Lys Ala Thr Thr Asp Ala Gly Val Gln Ala Ser
    210                 215                 220
Ile Asp Ser Gly Ala Arg Val Phe Trp Cys Phe Gly Phe His Asn Val
225                 230                 235                 240
Ser Asn Phe Pro Phe Glu Gln Gln Leu Ala Lys Phe Gln Glu Leu Ala
                245                 250                 255
Asp Ser Arg Arg Phe Ser Gly Gln Ala Ser Ser Leu Gly Ile Ala Tyr
            260                 265                 270
Asp Ala Phe Asn Pro Gly Ser Ala Gln Gln Thr Glu Ser Ile Ile Gln
        275                 280                 285
Leu Ala Met
```

290

<210> 38698
<211> 170
<212> PRT
<213> A.fumigatus

<400> 38698
Ser Leu Thr Met Cys Ala Val Ile Asn Ser Pro Glu Asp Leu His Ala
1 5 10 15
Leu Gly Phe Leu Asn Ser Ser Val Pro Ile Val Phe Ser His Ala Ser
20 25 30
Phe Leu Thr Pro Thr Gly Ala Arg Leu Leu Arg Glu Thr Asn Gln Tyr
35 40 45
Ile Ser Ile Thr Ala Glu Ser Glu Met His Tyr Gly His Asp His Pro
50 55 60
Tyr Asn His Met Ile Gln Asp Gln Ala Ser Leu Gly Val Asp Thr His
65 70 75 80
Phe Thr Phe Ser Thr Asp Ile Leu Thr Gln Ala Arg Ile Trp Leu Gln
85 90 95
Tyr Val Arg Leu Thr Leu Tyr Arg Trp Leu Ala Gln Asn Tyr Glu Val
100 105 110
Ala Thr Lys Asn Pro Met Ser Val Asp Gln Ala Phe Leu Leu Ala Thr
115 120 125
Arg Ser Gly Gly Leu Ala Leu His Arg Pro Asp Leu Val Ser Ser Arg
130 135 140
Leu Val Pro Leu Leu Met Trp Ser Ser Gly Met Val Arg Val Arg Glu
145 150 155 160
Cys Leu Gly Gly Thr Ile Gln Leu Pro Arg
165 170

<210> 38699
<211> 133
<212> PRT
<213> A.fumigatus

<400> 38699
Pro Gly Leu Leu Ala Gly His Ser Glu Arg Arg Thr Gly Pro Ser Pro
1 5 10 15
Thr Arg Leu Ser Val Leu Ser Val Gly Ala Ala Ala Asp Val Val Ile
20 25 30
Trp Asp Gly Ser Ser Pro Gly Met Leu Gly Trp His Asp Pro Val Ala
35 40 45
Ala Val Met Leu His Ala Gly Val Gly Asp Val Lys His Val Met Val
50 55 60
Asp Gly Lys Met Asn Lys Lys Asp Gly Lys Leu Leu Val Pro Lys Tyr
65 70 75 80
Gln Asp Leu Gln Arg Lys Phe Val Asp Val Ala Glu Arg Ile Gln Ser
85 90 95
Thr Trp Leu Ala Met Pro Pro Thr Val Leu Glu Gly Asp Phe Ala Met
100 105 110
Ser Gly Tyr Pro Leu Ala Val Pro Pro Leu Ala Asp Val Val Arg Gly
115 120 125
Asp Glu Ser Gly Tyr
130

<210> 38700
<211> 100
<212> PRT
<213> A.fumigatus

<400> 38700
Val Tyr Ser Arg Leu Thr Ala Asn Met Pro Thr Leu Leu Val Asp Gln
1 5 10 15
Thr Asp His Phe Trp Arg Ile Ile Gln Met Leu Leu Ala Glu Ala Thr
20 25 30
Phe Pro Gly His Ala Arg Leu Leu Ser Asp Leu Tyr Ser Leu His Asn
35 40 45
Val Glu Gln Arg Glu Pro Thr Gly Pro Asp Ile Leu Val Lys Gly Ser
50 55 60
Gln Arg Arg Leu Ile Val Ile Tyr Val Ala Tyr Ile His Met Glu Arg
65 70 75 80
Tyr Ile Cys Val Leu Gly His Val Ser Pro Ile Asn Cys Ile Trp Thr
85 90 95
Ser His Val Tyr
100

<210> 38701
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38701
Trp His His Gly Leu Asn Glu Ser Cys Val Pro Leu Arg Cys Ala Cys
1 5 10 15
Ser Val Arg Lys Tyr Thr Lys Glu Ser Lys Thr Val Ser Met Val Ile
20 25 30
Thr Cys Asn Gln Trp Ile Tyr Cys Phe Tyr Gly Ser Lys Leu Glu Lys
35 40 45
Asp Cys Leu Gly Glu His His Ser Ser Leu Met Ile Val His Ala Leu
50 55 60
Ile Ser Gly Leu
65

<210> 38702
<211> 163
<212> PRT
<213> A.fumigatus

<400> 38702
Val Cys Val Ala Val Phe Leu Ser Val Gln Glu Val Ala Arg Met Thr
1 5 10 15
Ser Asn Lys Lys Ser Arg Leu Pro Pro Tyr Gln Pro Gly Glu His Val
20 25 30
Gly Pro Ser Val His Leu Asn Cys Val Leu Leu Thr Thr Thr Val Val
35 40 45
Asn Phe Leu Asp Leu Phe Gln Leu Ser Ser Val Leu Phe Ala Leu Pro
50 55 60
Asn Ile Gln Gln Ala Leu Gly Phe Ala Ser Glu Asp Ile Asn Trp Val
65 70 75 80
Leu Ile Val Tyr Asn Ile Thr Phe Ala Ala Phe Leu Leu Ile Ala Gly
85 90 95

```
Gln Leu Gly Gln Arg Phe Gly Leu Glu Lys Ile Phe Ile Ala Gly Thr
            100                 105                 110
Ala Thr Leu Thr Ile Ser Asn Val Ile Asn Thr Thr Ala Pro Asn Lys
        115                 120                 125
Gly Ala Leu Leu Ala Gly Arg Ala Ile Ser Gly Val Gly Ala Gly Leu
    130                 135                 140
Thr Val Ser Glu Phe Gln Gln Gly Arg Thr Asp Met Ile Leu Ile Pro
145                 150                 155                 160
His Arg Ser
```

<210> 38703
<211> 168
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (99)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38703

```
Leu Phe Ile Ala Ser Ala Ala Gly Trp Arg Ser Ile Phe Trp Leu Cys
1               5                   10                  15
Leu Ile Leu Thr Gly Leu Ser Thr Ile Leu Ala Cys Leu Phe Leu Pro
            20                  25                  30
Arg Phe Ala Lys Arg Lys Asp Ile Pro Ile Asp Ile Pro Gly Thr Val
        35                  40                  45
Val Phe Thr Ala Gly Val Ala Leu Leu Val Tyr Gly Leu Asn Asp Ser
    50                  55                  60
Ser Arg Ser Gly Trp Thr Ser Ala Ala Val Leu Thr Gly Ile Ile Leu
65                  70                  75                  80
Gly Val Cys Leu Leu Phe Val Phe Leu Trp Val Glu Ala Lys Val Ser
                85                  90                  95
Asn Pro Xaa Ile Pro Gly Tyr Leu Trp Lys Ser Gly Pro Phe Leu Val
            100                 105                 110
Met Leu Val Ala Ile Phe Ala Phe Gly Gly Ser Phe Ser Thr Trp Phe
        115                 120                 125
Phe Ile Ser Thr Gln Leu Cys Val Asn Leu Leu Gly Tyr Ser Thr Ile
    130                 135                 140
Leu Thr Ala Val Tyr Phe Leu Val Cys Leu Pro Pro Phe His Ser Leu
145                 150                 155                 160
Ser Leu Arg Phe Gly Ala Arg Ala
                165
```

<210> 38704
<211> 68
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (30)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38704

```
Pro Ala Ala Phe Ala Ala Ile Ala Ser Gly Val Phe Ala Thr Pro Leu
1               5                  10                  15
Ile Arg Leu Ala Gly Glu Lys Asn Ile Leu Val Ala Gly Xaa Ala Ile
            20                  25                  30
Thr Ala Ala Gly Ala Val Ala Trp Ala Phe Ala Gly Pro Arg Ile Gly
        35                  40                  45
Pro Ala Val Pro Thr Thr Gly Arg Asp Thr Gly Ile Pro Ser Leu Gln
    50                  55                  60
Pro Ser Ser Leu
65
```

<210> 38705
<211> 575
<212> PRT
<213> A.fumigatus

<400> 38705

```
Leu Tyr Gly Gly Ser Pro Val Val Glu Val Ala Leu Ser Gly Tyr Ala
1               5                  10                  15
Met Leu Asp Gln Ile Gly Thr Gly Leu Arg Gln Arg Ile Tyr Ser Arg
            20                  25                  30
Ser Phe Ile Phe Ala Asn Pro Asn Gln Pro Asp Asp Thr Phe Ile Tyr
        35                  40                  45
Ile Val Ile Asp Ala Val Thr Gly Asp Thr Ala Val Arg His Gly Val
    50                  55                  60
Leu Gln Ala Leu Ala Ser Leu Gly Gly Asp Tyr Ala Arg Tyr Gly Glu
65                  70                  75                  80
Arg Asn Val Ala Leu Thr Gly Thr His Ser His Ser Gly Pro Gly Ala
                85                  90                  95
Trp Asn Asn Tyr Leu Leu Pro Gln Ile Pro Ser Lys Gly Phe Asp Lys
            100                 105                 110
Gln Ser Tyr Gln Ala Ile Val Asp Gly Val Val Leu Ser Ile Lys Arg
        115                 120                 125
Ala His Glu Ser Leu Ala Leu Gly Arg Leu Ser Phe Gly Ser Ile Asp
    130                 135                 140
Val Glu Asn Ala Asn Ile Asn Arg Ser Pro Tyr Ser Tyr Asp Ala Asn
145                 150                 155                 160
Pro Glu Glu Glu Lys Ala Arg Tyr Ser Ala Asn Val Asp Lys Thr Met
                165                 170                 175
Thr Leu Leu Arg Phe Asp Arg Glu Ser Asp Asn Arg Thr Thr Ala Ile
            180                 185                 190
Leu Thr Phe Phe Pro Val His Gly Thr Ser Leu Tyr Asn Asn Asn Thr
        195                 200                 205
Leu Thr Thr Gly Asp Asn Lys Gly Val Ala Ala Trp Leu Phe Glu Arg
    210                 215                 220
Ser Val Gln Asp Asp Ala Asn Phe Ala Asp Asp Phe Val Ala Gly Phe
225                 230                 235                 240
Ser Gln Ser Asn Val Gly Asp Thr Ser Pro Asn Val Leu Gly Ala Trp
                245                 250                 255
Cys Glu Asp Gly Ser Gly Gln Met Cys Arg Tyr Ser Asp Ser Thr Cys
            260                 265                 270
Gly Gly Lys Thr Glu Asp Cys His Gly Arg Gly Pro Phe Phe Arg Glu
        275                 280                 285
Lys Asp Asn Gly Ala Lys Ser Cys Phe Glu Ile Gly Arg Leu Gln Tyr
    290                 295                 300
Ala Ala Ala Lys Gln Leu Tyr Ser Gln Met Asp Thr Ser Asn Thr Arg
```

```
305                 310                 315                 320
Ile Thr Gly Asn Ser Asn Val Arg Ser Phe His Ala Tyr Arg Asp Leu
                325                 330                 335
Ala Gly Tyr Thr Phe Gln Ser Pro Phe Asn Ser Ser Met Leu Thr Thr
            340                 345                 350
Cys Ser Ala Ala Leu Gly Phe Ser Phe Ala Ala Gly Thr Thr Asp Gly
        355                 360                 365
Pro Gly Leu Phe Asp Phe Thr Gln Asn Ser Ser Gly Pro Ala Glu Ser
    370                 375                 380
Asn Pro Leu Trp Tyr Val Ala Arg Ala Phe Val His Gln Pro Ser Ala
385                 390                 395                 400
Lys Gln Lys Ala Cys Gln Ala Pro Lys Asp Ile Leu Leu Asp Val Gly
                405                 410                 415
Ala Asn Thr Gln Pro Tyr Ala Trp Glu Pro Asn Ile Val Asp Ile Gln
            420                 425                 430
Val Leu Arg Val Gly Gln Leu Phe Leu Ile Ile Ser Thr Ser Glu Ala
        435                 440                 445
Thr Thr Met Ala Gly Arg Arg Trp Lys Glu Ala Ile Ala Lys Ser Ala
    450                 455                 460
Lys Asp Val Leu Ser Ile Asp Ser Pro Leu Val Val Leu Gly Ala Pro
465                 470                 475                 480
Ser Asn Ser Tyr Ala His Tyr Val Thr Thr Glu Glu Glu Tyr Ser Arg
                485                 490                 495
Gln Arg Tyr Glu Gly Ala Ser Thr Leu Tyr Gly Pro His Thr Leu Ala
            500                 505                 510
Ala Tyr Ile Asn Leu Thr Leu Thr Tyr Leu Pro Tyr Leu Gly Asp Ser
        515                 520                 525
Pro Asn Pro Ala Thr Leu Pro Glu Met Pro Thr Gly Val Gln Pro Pro
    530                 535                 540
Ile Asn Thr Asp Lys Ser Leu Ser Phe Ile Pro Gly Val Val Tyr Asp
545                 550                 555                 560
Ser Ala Pro Ser Leu His His Gly Ala Glu Gly Ala Arg Asn His
                565                 570                 575
```

<210> 38706
<211> 74
<212> PRT
<213> A.fumigatus

<400> 38706

```
Pro Cys Asn Asn Val Val Asp Ile Ala Gly Tyr Gly Arg Gly Pro Arg
1               5                   10                  15
Arg Asp Asn Gln Leu Asp Asp Phe Asn Ile Gly Ser Leu Arg Leu Asp
            20                  25                  30
Asn Thr Asn Thr Asp Lys Arg Gly Ala Leu Ala Ala Ser Ile Ser Pro
        35                  40                  45
Arg Val Gln Ala Asp Lys Ser Ala Tyr His Leu Arg Met Ser Cys Val
    50                  55                  60
Trp Ser Leu Val Phe Phe Asp Asn Gln Glu
65                  70
```

<210> 38707
<211> 205
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (68)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38707
Pro Asp Ile Asp Ala Glu Pro Ser Ala Gln Ala Arg Ala Ala Ala Gln
1 5 10 15
Gln Leu Ile Ala Ala Glu Leu Ser Pro Asn His Ala Ser Thr Leu His
20 25 30
Pro Ala Ile Pro Glu Leu Pro Glu Arg Gly Phe Ser Pro Leu Ile Gln
35 40 45
Gln Glu Ile Asp Arg Lys Pro Ala Gly Leu Pro Leu Thr Gly Gly Ile
50 55 60
Asp Leu Ser Xaa Tyr Glu Ala Pro Glu Pro Pro Ala Arg Ser Thr Asp
65 70 75 80
Gly Glu Val Pro Asp Leu Asp Ala Trp Arg Arg Ile Leu Gln Arg Ala
85 90 95
Tyr Met Ala Ser Ser His Leu Ser Met Arg His Glu Asn Leu Ala Leu
100 105 110
Leu Glu Glu Tyr Gly Lys Asn Ala Trp Leu Ile Gly Asn Ser Gln Leu
115 120 125
Glu Asp Ile Leu Arg Gly Leu Glu Lys Glu Leu Ala Glu Thr Lys Glu
130 135 140
Ala Ala Glu Ala Val Asn Lys Gln Arg Lys Leu Ala Gln Glu Ala Ser
145 150 155 160
Gln Gly Glu Met Val Ser Leu Glu Glu Thr Trp Lys Arg Gly Val Ser
165 170 175
Ala Ile Leu Asp Val Glu Leu Ala Ser Glu Gly Leu Arg Leu Gln Ile
180 185 190
Leu Glu Gln Arg Arg Arg Leu Ala Gln Gln Gln Ala Arg
195 200 205

<210> 38708
<211> 472
<212> PRT
<213> A.fumigatus

<400> 38708
Leu Thr Ser Val Glu Pro Asn Thr Leu Leu Thr Leu Glu Asp Lys Ser
1 5 10 15
Asn Ser Ile Leu Pro Gln Gly Gln Arg Leu Ile Leu Arg Glu Leu Gly
20 25 30
His Arg Ser Gly Pro Lys Val Tyr Leu Leu Pro Val Pro Pro Gln Gly
35 40 45
Val Ser Gly Lys Lys Phe Thr Leu Leu Thr Asp Gln Arg Phe Asp Lys
50 55 60
Thr Gly Glu His Gly Asn Leu Glu Val Leu Phe Cys Ser Val Phe Pro
65 70 75 80
Leu Gln Asn Gly Lys Phe Ala Thr Val Phe Ser Met Asn Met Asp Phe
85 90 95
Ser Gly Gly Asn Thr Gly Ser Thr Arg Leu Ala Cys Lys Asn Ala Ala
100 105 110
Glu Asp Gly Ile His Leu Pro Ala Ser Thr Pro Val Ser Lys Tyr Pro
115 120 125
Phe Asp Arg Val Gln Pro Phe Ser Tyr Leu Gln Tyr Glu Leu Glu Asp

```
    130                 135                 140
Leu Ser Glu His Gln Phe Val Ala Ile Val Asp Lys Ala Asp Ser Pro
145                 150                 155                 160
Thr Lys Gly Trp Val Leu Ala Glu Phe Ser Asp Ser Ser Asp Ala Val
                165                 170                 175
Ile Arg Val Arg Gly Gly Leu Gly Gly Leu Leu Ser Ala Gly Leu Lys
            180                 185                 190
Met Arg Leu Pro Ala Asn Arg Pro Met Leu Thr Glu Ile Lys Ile Pro
        195                 200                 205
Ala Leu His Ser Ser Leu Leu Asp Tyr Lys Leu Gln Ile Val Arg His
    210                 215                 220
Asn His Asp Lys Arg Gln Glu Leu Phe Ala Pro Leu Leu Arg Gln Ser
225                 230                 235                 240
Ile Ser Asp Pro His Glu Ser Lys Phe Phe Val Asn Val Asp Lys Val
                245                 250                 255
Asp Val Asn Leu His Gly Val Ala Pro Phe Met Pro Pro Pro Leu Arg
            260                 265                 270
Glu Gln Ala Thr Leu Gly Gly Val Ser Phe Gln Leu Trp Thr Asp Pro
        275                 280                 285
Ser Cys Gly Ser Thr Val Asp Val Ser Leu Lys Val Asp Ile Ala Gly
    290                 295                 300
Ser Leu Gly Glu Leu Val Met Arg Tyr Arg Thr Val Phe Ala Ala Phe
305                 310                 315                 320
Pro Leu Leu Val Val Ala Leu Val Leu Arg Lys Gln Phe Gln Met Tyr
                325                 330                 335
Asp Glu Thr Gly Tyr Phe Ile Thr Phe Ala Glu Gly Leu Asp Thr Ala
            340                 345                 350
Leu Arg Ser Ser Phe Pro Ile Leu Leu Leu Ala Met Ser Leu Leu Ala
        355                 360                 365
Ser Ser Leu Ala Thr Ser Ala Gln Ile Pro Pro Ile Asp Glu Pro Phe
    370                 375                 380
Gln Trp Pro Val Asn Ala Thr Glu Thr Pro Ile Asp Phe Thr Lys Asn
385                 390                 395                 400
Asp Leu Leu Leu Gly Ser Gln Asp Ala Phe Phe Trp Phe Leu Val Pro
                405                 410                 415
Val Phe Gly Leu Ile Ser Val Gly Val Cys Val Ile Leu Asn Tyr Ile
            420                 425                 430
Ala Leu Ile Leu Leu Ser Val Leu Ser Phe Ile Tyr Gly Cys Leu Ile
        435                 440                 445
Thr Arg Ser Gly Tyr Ile Lys Arg Asn Glu Lys Gly Tyr Val Asn Asp
    450                 455                 460
Thr Leu Ala Phe Tyr Glu Thr Arg
465                 470
```

<210> 38709
<211> 121
<212> PRT
<213> A.fumigatus

<400> 38709

```
Cys Leu Val His His Ala Phe His Pro Pro Cys Gly Asn His Asp Gln
1               5                   10                  15
Arg Gly His Asp Pro Gln Ser His His Lys Val Cys Ala Ile Ile Ser
            20                  25                  30
Ser Leu Gln Cys Gln Ser Thr Asn His Arg Arg Leu Lys His Val Thr
        35                  40                  45
```

```
Ser Met Ile Leu Phe Ala Ile Ala Val Tyr Ser Ala Val Tyr Gly Val
    50                  55                  60
Ser Tyr Ala Tyr Leu Leu His His Leu Ala Asn Ile Leu Ala Ala Trp
65                  70                  75                  80
Phe Val Val Ile Tyr Phe Phe Ser Ser Gly Phe Ser Leu Arg Arg Leu
                85                  90                  95
Trp Leu Ile Leu Glu Gly Asp Asp Ala Thr Gln Gly Lys Ser Glu Pro
            100                 105                 110
Gly Gly Ser His Gln Lys Lys Lys Pro
        115                 120
```

<210> 38710
<211> 256
<212> PRT
<213> A.fumigatus

<400> 38710

```
Thr His Pro Thr Gln Gly Leu Arg Leu Arg Ser Ala Phe Pro Pro Gln
1               5                   10                  15
Lys Ala Ser Ile Arg Ala Cys Val Leu Asn Glu Leu Arg Ile Ser Pro
            20                  25                  30
Pro Pro Pro Met His Arg Arg Ser Ser Gly Ser Pro Val Glu Asp Asp
        35                  40                  45
Ala Glu Asp Ser Pro Leu Val Ser Arg Ser Pro Thr Glu Ser Thr Ala
    50                  55                  60
His Gly Pro Asn Asn Asn Ala Phe Glu Thr Ala Glu Lys Ser Arg Ser
65                  70                  75                  80
Gln Ile Ala Lys Arg Gly Thr Ser Phe Asp Leu Arg Arg Asp Asn Gly
                85                  90                  95
Ala Ser Thr Pro Arg Ser Arg Asn Ser Gly Leu Trp Arg Thr Pro Ser
            100                 105                 110
Ser Ser Ser Thr Ser Ser Thr Thr Ala Met Ala Thr Ala Ser Thr Glu
        115                 120                 125
Thr Lys Ser Ser Ser Ala Ser Phe Leu Met Pro Leu Ala Ser Gln Arg
    130                 135                 140
Leu Pro Met Gly Thr Ser Pro Glu Ser Ser Arg Phe Arg Ser Ser Arg
145                 150                 155                 160
Leu Arg Ser Pro Trp Thr Cys Ser Ile Leu Thr Ala Leu Thr Thr Leu
                165                 170                 175
Val Ala Ser Val Phe Leu Phe Phe Ile Val Arg Ser Phe Ser Ala Arg
            180                 185                 190
Gln Ala Gly Glu Asp Gly Cys Gly Ile Pro Val Met Ser Pro Thr Phe
        195                 200                 205
Leu His Met Val Gly Phe Asp Thr Glu His Thr Arg Phe Ala Ser Lys
    210                 215                 220
Tyr Asn Leu Tyr Leu Tyr Arg Glu Glu Gly Val Asp Phe Tyr Asn Gln
225                 230                 235                 240
Glu Asn Leu Gly Val Cys Cys Pro Pro Leu Ile Leu Gln Leu Gln Cys
                245                 250                 255
```

<210> 38711
<211> 67
<212> PRT
<213> A.fumigatus

<400> 38711

```
Thr Gly Ala Pro Val Leu Phe Leu Pro Gly Asn Ala Gly Ser Tyr Arg
1               5                  10                  15
Gln Val Arg Ser Leu Ala Ala Glu Ala Ser Arg His Phe His Asp Val
            20                  25                  30
Val Arg His Asp Gln Glu Arg Ile Lys Ala Gly Thr Ala Glu Leu Gly
        35                  40                  45
Phe Leu His Asp Arg Leu Gln Arg Gly Tyr Gly Cys Val Pro Arg Pro
    50                  55                  60
Asn Pro Pro
65
```

<210> 38712
<211> 93
<212> PRT
<213> A.fumigatus

<400> 38712

```
Arg Ser Thr Ala His Tyr Asn Phe Ser Asn Tyr Ala His Ser Ile Phe
1               5                  10                  15
Ile Leu Met Leu Trp Ile Leu Pro Ile Asn Ile Leu Val Leu Leu Val
            20                  25                  30
Trp Ala His Asn Leu Val Val His Trp Phe Met Pro Phe Ser Ser His
        35                  40                  45
His Asn Val Leu Ser Ile Met Pro Phe Ile Leu Leu Val Glu Thr Met
    50                  55                  60
Thr Ser Gly Ala Met Ile Pro Arg Val Thr Thr Arg Tyr Ala Pro Ser
65                  70                  75                  80
Phe Pro Arg Phe Ser Val Ser Arg Leu Ile Thr Ala Gly
                85                  90
```

<210> 38713
<211> 299
<212> PRT
<213> A.fumigatus

<400> 38713

```
Ser Phe Ser Cys Ser Ala Asn Glu Pro Lys Val Glu Arg Gly Leu Pro
1               5                  10                  15
Ser Cys Ser Tyr Arg Glu Met Pro Val Ala Thr Asp Lys Ser Asp His
            20                  25                  30
Leu Leu Pro Lys His Arg Gly Thr Phe Thr Met Ser Ser Val Thr Thr
        35                  40                  45
Lys Ser Ala Ser Arg Pro Val Pro Arg Ser Leu Asp Phe Phe Met Ile
    50                  55                  60
Asp Phe Asn Glu Asp Met Ala Ala Phe His Gly Gln Thr Leu Leu Asp
65                  70                  75                  80
Gln Ala Glu Tyr Val Asn Glu Ala Ile Ala Tyr Ile Leu Ser Leu Tyr
                85                  90                  95
His Asp Pro Lys Arg Ser Arg Arg Asp Pro Glu Leu Pro Asp Pro Ser
            100                 105                 110
Ser Val Ile Leu Ile Gly His Ser Met Gly Gly Ile Val Ala Arg Thr
        115                 120                 125
Ala Leu Thr Met Ser Asn Tyr Gln Ala Asn Ser Val Asn Thr Ile Val
    130                 135                 140
Thr Met Ser Ala Pro His Ala Lys Pro Pro Val Ser Phe Asp Ser Asp
145                 150                 155                 160
```

```
Ile Val His Thr Tyr Lys Gln Ile Asn Asp Tyr Trp Arg Glu Ala Tyr
                165                 170                 175
Ser Gln Thr Trp Ala Asn Asn Asn Pro Leu Trp His Val Thr Leu Ile
            180                 185                 190
Ser Ile Ala Gly Gly Ser Arg Asp Thr Val Val Pro Ser Asp Tyr Ala
        195                 200                 205
Ser Ile Ser Ser Leu Val Pro Glu Thr His Gly Phe Thr Val Phe Thr
    210                 215                 220
Ser Ser Ile Pro Asp Val Trp Ile Gly Val Asp His Leu Ser Ile Thr
225                 230                 235                 240
Trp Cys Asp Gln Phe Arg Lys Ala Ile Ile Lys Ser Leu Phe Asp Ile
                245                 250                 255
Ile Asp Val Arg Arg Ala Ser Gln Thr Lys Pro Arg Ala Glu Arg Met
            260                 265                 270
Arg Ile Phe Lys Lys Trp Tyr Leu Thr Gly Leu Glu Pro Val Ala Glu
        275                 280                 285
Arg Thr Leu Ser Gln Lys Gly Trp Cys Pro Cys
    290                 295
```

<210> 38714
<211> 93
<212> PRT
<213> A.fumigatus

<400> 38714

```
Glu Trp Arg His Gln Leu Arg Ser Ser Ile His Pro Leu Leu Phe Ala
1               5                   10                  15
Ala Val Tyr Ser Ala Ala Asp Val Val Ala Gln Leu Leu Arg Leu Ser
            20                  25                  30
Leu Ala Ser Arg Ala Asp Leu Leu Val Ala Ala Pro Lys Thr Ala Gln
        35                  40                  45
Ala Val Ile Ala Gly Leu Gly Asp Phe Tyr Thr Trp Lys Leu Ala Arg
    50                  55                  60
Tyr Val Tyr Gly Ala Arg Ser Tyr Glu Ala Trp Ala Thr Val Cys Ser
65                  70                  75                  80
Ser His Cys Leu Pro Asn Tyr Arg Tyr Glu Asp Arg Gly
                85                  90
```

<210> 38715
<211> 137
<212> PRT
<213> A.fumigatus

<400> 38715

```
Leu Ser Lys Leu Ala Leu Thr Val Val Ser Pro Trp Gln Trp Phe Cys
1               5                   10                  15
Ser Thr Arg Thr Leu Ser Asn Cys Leu Glu Thr Thr Ile Thr Ile Val
            20                  25                  30
Ala Leu Tyr Leu Trp Pro Trp Ser Trp Ser Phe Glu Thr Pro Val Arg
        35                  40                  45
Lys Lys Ala Thr Arg Ala Ala Ser Arg Glu Arg Ala Gln Arg Gly Pro
    50                  55                  60
Glu Gly Ser Asp Ser Leu Gln Arg Tyr Gly Gly Arg Pro Phe Asp His
65                  70                  75                  80
Thr Tyr Leu Thr Arg Gln Arg Arg Leu Arg Gln Cys Leu Ser Leu Ala
                85                  90                  95
```

```
Ala Val Ala Cys Ile Leu Arg Pro Thr Asn Ile Leu Ile Trp Met Gly
            100                 105                 110
Leu Ala Ser Val Ala Trp Phe Arg Thr Ser Trp Asp Arg Arg Ala Ile
        115                 120                 125
Leu Val Arg Glu Val Leu Leu Cys Gly
    130                 135
```

<210> 38716
<211> 479
<212> PRT
<213> A.fumigatus

<400> 38716

```
Ile His Arg Cys Ala Val Leu Gly Leu Ser Cys Val Val Asp Arg Leu
1               5                   10                  15
Phe Tyr Gly Ser Trp Thr Phe Pro Pro Leu Arg Phe Leu Tyr Phe Asn
            20                  25                  30
Ile Ala Gln Ser Leu Ala Val Phe Tyr Gly Arg Asn Asp Trp His Tyr
        35                  40                  45
Tyr Ile Ser Gln Gly Phe Pro Leu Leu Leu Thr Thr Ala Leu Pro Phe
    50                  55                  60
Ala Leu Val Gly Leu Tyr Arg Ala Leu Ala Gln Val Arg Thr Phe Gly
65                  70                  75                  80
Leu Gly His Leu Gln Ser Leu Val Gln Ala Gln Leu Ala Leu Ile Cys
                85                  90                  95
Val Ile Met Pro Phe Val Leu Ser Leu Val Ser His Lys Glu Val Arg
            100                 105                 110
Phe Ile Tyr Pro Leu Leu Pro Ser Leu His Ile Leu Ser Ala Pro Pro
        115                 120                 125
Leu Val Asp Tyr Phe Leu Pro Ala Val Ile Arg Ser Ser Arg Ser Tyr
    130                 135                 140
Thr Pro Arg Arg Leu Thr Leu Ile Phe Leu Leu Leu Val Asn Ile Val
145                 150                 155                 160
Ile Ala Leu Tyr Thr Thr Ile Tyr His Ala Ser Gly Pro Ser Asn Ile
                165                 170                 175
Leu Ser Tyr Leu Arg Gln Gln His Glu Leu His Ala Pro Ala Ala Gln
            180                 185                 190
Thr Pro Ser Asn Leu Arg Pro Ser Val Lys Asp Pro Ser Pro His Gly
        195                 200                 205
Ile Thr Ala Gly Phe Leu Met Pro Cys His Ser Thr Pro Trp Arg Ser
    210                 215                 220
His Leu Ile Tyr Pro Thr Ile His Ala Trp Ala Leu Thr Cys Glu Pro
225                 230                 235                 240
Pro Val Asp Gln Thr Ala Ala Gln Lys Ala Thr Tyr Ile Asp Glu Ala
                245                 250                 255
Asp Gln Phe Tyr Ala Asn Pro Ala Arg Phe Leu Arg Glu His Met Ala
            260                 265                 270
Gly Gly Leu Arg His Ile Ser Arg Lys Pro Ser Tyr Leu Ser Ala Gln
        275                 280                 285
Pro Arg Pro Gln His Pro Ser Thr Thr Ser Thr Asn Asp Ala Ser His
    290                 295                 300
Glu Trp Pro Asp Tyr Leu Ile Phe Phe Ala Gln Leu Glu Pro Thr Leu
305                 310                 315                 320
Gln Ser Leu Leu Arg Ala Ser Ser Tyr Ala Glu Cys Tyr Arg Thr Phe
                325                 330                 335
Asn Thr Ala Trp His Asp Asp Trp Arg Arg Lys Gly Asp Ile Val Ala
```

```
            340                 345                 350
Trp Cys Leu Asp Pro Ala Glu Gln Gln Ala Trp Arg Ser Ala Thr Arg
        355                 360                 365
Gln Arg Asp Leu Glu Asn Arg Glu Arg Gln Phe Asp Arg Ile Ile Glu
    370                 375                 380
Ser Phe Arg Lys Glu Ala Ser Gly Lys Arg Asp Gly Lys Leu Ser Pro
385                 390                 395                 400
Phe Arg Arg Trp Phe Ser Ser Ser Ser Ser Val Ala Pro Ser Ser Ser
                405                 410                 415
Leu Ser Leu Ser Trp Pro Thr Ser Trp Arg Trp Pro Trp Gly Gln Arg
            420                 425                 430
Lys Arg Thr Ala Trp Leu Gly Val Gln Ile Pro Gln Trp Thr Arg Thr
        435                 440                 445
Arg Pro Ser Trp Thr Ala Trp Gly Gly Asp Trp Phe Gly Gly Trp Arg
    450                 455                 460
Gln Lys Lys Lys Thr Lys Lys Leu Leu Glu Arg Asp Leu Trp Ser
465                 470                 475
```

<210> 38717
<211> 170
<212> PRT
<213> A.fumigatus

<400> 38717

```
Arg Val Thr Ala Val Gly Gly Thr Val Gly Thr Arg Leu Asn Gly Glu
1               5                   10                  15
His Asp Val Phe Ala Thr Gln Asp Thr Arg His Arg Val His Ala Thr
            20                  25                  30
Gly Asn Ser Leu Ala Gln Gln Asn Gln Ile Gly Leu Asp Ser Ala Pro
        35                  40                  45
Leu Met Ala Glu Gln Phe Ala Cys Thr Gly Asn Thr Arg Leu Asn Leu
    50                  55                  60
Ile Thr Asp Glu Gln Asp Ile Val Leu Ile Thr Gln Ser Ser Arg Leu
65                  70                  75                  80
Pro Gln Ile Val Ile Val Gly Asn Asp Asn Ala Cys Phe Ala Leu Asn
                85                  90                  95
Arg Leu Tyr Gln Glu Gly Gly Lys Val Gly Ser Arg Val Leu Lys Gly
            100                 105                 110
Leu Pro Gln Gly Cys Leu Val Ile Ile Leu Glu Gly Leu Ile Gly Ser
        115                 120                 125
Arg Asp Cys Ala Ser Asp Thr Trp Gln Ile Arg Thr Val Val Phe Ala
    130                 135                 140
Arg Leu Gly Ile Ala Arg Gln Arg Asn Ser Gly Glu Leu Asp Glu Glu
145                 150                 155                 160
Gly Trp Ser Ile His His Asp Arg Val Asp
                165                 170
```

<210> 38718
<211> 137
<212> PRT
<213> A.fumigatus

<400> 38718

```
Asn Leu Pro Thr Thr Met Ser Ser Ser Arg Arg Arg Lys Ser Phe Thr
1               5                   10                  15
Ser Ser Ser Ser Ser Ser Ser Pro Ser Phe His Ser Pro Pro Pro Ile
```

```
            20                  25                  30
Ser Arg Leu Arg Pro Arg Ser Pro Pro Ser Ser Asn Thr Lys Thr Ser
        35                  40                  45
Pro Thr Ser Thr Thr Pro Leu Ala Thr Asn Ile Leu Leu Ser Leu Ile
    50                  55                  60
Ala Phe Arg Leu Val Asn Ala Phe Thr Val Arg Thr Phe Phe Gln Pro
65                  70                  75                  80
Asp Glu Phe Phe Gln Ser Leu Glu Pro Ala Trp Gln Ile Ala Phe Gly
                85                  90                  95
Glu Asn Gln Gly Ala Trp Ile Thr Trp Val Ser Gly Val Ala Ser Pro
            100                 105                 110
Gln His Tyr Arg Val Gln Pro Cys Leu Ala Phe Glu Phe Val Ala Asn
        115                 120                 125
Ser His Ile Ile Pro Ala Thr Asn Leu
    130                 135
```

<210> 38719
<211> 201
<212> PRT
<213> A.fumigatus

<400> 38719

```
Pro Gly Gly Pro Leu Ser Leu Ala Pro Arg Pro Ala Pro Arg Arg Arg
1               5                   10                  15
Pro Arg Gln Arg Glu Arg Arg Arg Arg Gly Asn Arg Arg Arg Arg Arg
            20                  25                  30
Lys Pro Pro Thr Glu Arg Arg Glu Leu Ala Ile Ala Leu Pro Ala Arg
        35                  40                  45
Phe Phe Pro Glu Thr Leu Asp Asp Pro Val Glu Leu Ser Leu Ala Val
    50                  55                  60
Leu Glu Val Ala Leu Ala Gly Gly Gly Ser Pro Ser Leu Leu Phe Gly
65                  70                  75                  80
Gly Val Glu Ala Pro Gly Tyr Asp Val Ala Phe Ala Ala Pro Val Val
                85                  90                  95
Val Pro Gly Cys Val Glu Gly Ala Val Ala Phe Gly Val Gly Ala Gly
            100                 105                 110
Ala Glu Glu Gly Leu Gln Gly Trp Leu Glu Leu Arg Glu Glu Asp Glu
        115                 120                 125
Val Val Arg Pro Phe Val Ala Gly Val Val Gly Ala Cys Arg Arg Arg
    130                 135                 140
Val Leu Gly Ala Trp Leu Arg Gly Glu Ile Gly Trp Phe Pro Gly Asp
145                 150                 155                 160
Val Ala Glu Ala Ala Gly His Val Leu Ala Glu Glu Pro Gly Gly Val
                165                 170                 175
Gly Val Glu Leu Val Cys Phe Val Tyr Val Gly Gly Phe Leu Gly Gly
            180                 185                 190
Gly Leu Val Asn Gly Gly Leu Thr Gly
        195                 200
```

<210> 38720
<211> 312
<212> PRT
<213> A.fumigatus

<400> 38720

```
Lys Pro Ser Val His Leu Lys Phe Ser Ser Gln Gly Asn Lys Ile Leu
```

```
1               5                   10                  15
Phe Pro Lys Arg Val Trp Arg Glu Ser Gln Asp Pro Phe Phe Gln Phe
            20                  25                  30
Gly Gly Pro Thr Gly Lys Arg Pro Phe Thr Ser Lys Pro Val Asn Pro
        35                  40                  45
Glu Pro Trp Val Gly Pro Asp Lys Pro Phe Phe Gln Pro Val Gly Arg
    50                  55                  60
Gly Gly Gly Ile Gln Gly Ser Asn Asn Leu Ser Gln Ser Phe Gly Ser
65                  70                  75                  80
Ala Val Pro Asn Pro Pro Gln His Ala Asn Ile Met Pro Ala Leu Ser
                85                  90                  95
Ser Thr Ser Pro Phe Ser Gln Val Phe Tyr Gln Gln Gln Gln Gln Pro
            100                 105                 110
Gln Pro Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
        115                 120                 125
Phe Met Gln Asn Gln Pro His Leu Gln Gly Gln Gly Phe Ala Ser Gln
    130                 135                 140
Asn Pro Phe Gln Ser Met Ala Ala Pro Asn Thr Pro Pro Asn Ala Ile
145                 150                 155                 160
Tyr Gln Asn Gln Tyr Gln Pro Gln Val Gln Ala Gly Met Gln Gln Pro
                165                 170                 175
Thr Gln Tyr Met Ala Pro Gln Pro Thr Gly Arg Val Asp Lys Asp Thr
            180                 185                 190
Ile Leu Ser Leu Tyr Asn Thr Ser Ser Pro Gln Ala Ser Gly Met Gln
        195                 200                 205
Gln Pro Ser Gln Met Gln Ala Ser Met Gly Met Ser Leu Asn Gln Ala
    210                 215                 220
Ala Gln Asn Gln Pro Met Pro Ser Ile Ser Glu His Gln Asn Asn Gly
225                 230                 235                 240
Pro Gln Ala Ser Ala Gly Pro Gln Leu Ala Gly Ser Arg Asn Pro Phe
                245                 250                 255
Met Gly Gly Gln Gly Asn Pro Gly Ala Gly Thr Asp Leu Thr Pro Lys
            260                 265                 270
Ala Ser Gln Pro Asn Gly Asn Phe Pro Arg His Met Ser Gln Gln Ser
        275                 280                 285
Val Asp Ile Asn Gly Phe Gln Ser Gly Arg His Ser Pro Asp Ala Phe
    290                 295                 300
Ala Asp Pro Ser Ala Arg Tyr Gln
305                 310
```

<210> 38721
<211> 219
<212> PRT
<213> A.fumigatus

<400> 38721

```
Phe Ala Ala Ile Ser Leu Ser Cys Asp Pro Glu Ser Arg Glu Asn Tyr
1               5                   10                  15
Gly Pro Tyr Leu Pro Gly Ile Gly Cys Thr Ile Pro Gly Thr Asp Lys
            20                  25                  30
Pro Leu Lys Tyr Asn Asp Lys Ala Ala Leu Arg Glu Ala Phe Glu Asn
        35                  40                  45
Ala Gly Pro Asn Leu Ala Ala Phe Leu Val Glu Pro Ile Gln Gly Glu
    50                  55                  60
Ala Gly Ile Val Val Pro Asp Asp Asp Tyr Leu Arg Glu Ala Arg Ala
65                  70                  75                  80
```

```
Leu Cys Asp Lys His Asn Val Leu Leu Ile Cys Asp Glu Ile Gln Thr
                85                  90                  95
Gly Ile Ala Arg Thr Gly Lys Leu Leu Cys His Glu Trp Ser Gly Ile
            100                 105                 110
Lys Pro Asp Leu Val Leu Leu Gly Lys Ala Ile Ser Gly Gly Met Tyr
        115                 120                 125
Pro Val Ser Cys Val Leu Gly Arg Lys Asp Val Met Leu Thr Ile Glu
    130                 135                 140
Pro Gly Thr His Gly Ser Thr Tyr Gly Gly Asn Pro Leu Gly Cys Ala
145                 150                 155                 160
Val Ala Ile Arg Ala Leu Glu Val Ile Gln Glu Glu His Met Val Glu
                165                 170                 175
Arg Ala Glu Lys Val Gly His Val Leu Arg Lys Gly Leu Glu Ala Ile
            180                 185                 190
Arg Ser Pro Ile Ile Gln Thr Val Arg Gly Lys Gly Leu Leu Val Phe
        195                 200                 205
Thr Thr Gly Val Glu Gly Ser Ala Leu Ser Val
    210                 215
```

<210> 38722
<211> 249
<212> PRT
<213> A.fumigatus

<400> 38722

```
Ser Arg Thr Ile Ser Phe Lys Leu Thr Ser Ser Leu Arg Ser Ala Ser
1                   5                  10                  15
Met Ser Ala Asn Gly Thr Ser Phe Tyr His Ala Ser Ser Thr Gln Glu
            20                  25                  30
Ala Ile Gln Ala Glu Lys Glu Phe Ala Ala His Asn Tyr His Pro Leu
        35                  40                  45
Pro Val Val Phe Ala Arg Ala Gln Gly Thr Ser Val Trp Asp Pro Glu
    50                  55                  60
Gly Arg His Tyr Leu Asp Phe Leu Ser Ala Tyr Ser Ala Val Asn Gln
65                  70                  75                  80
Gly His Cys His Pro Lys Leu Val Ala Ala Leu Val Asp Gln Ala Ser
                85                  90                  95
Arg Leu Thr Leu Ser Ser Arg Ala Phe Tyr Asn Asp Val Phe Pro Arg
            100                 105                 110
Phe Ala Glu Phe Val Thr Lys Tyr Phe Gly Phe Asp Met Val Leu Pro
        115                 120                 125
Met Asn Thr Gly Ala Glu Ala Val Glu Thr Gly Ile Lys Ile Ala Arg
    130                 135                 140
Lys Trp Gly Tyr Lys Val Lys Gly Ile Pro Glu Asn Gln Ala Val Val
145                 150                 155                 160
Leu Ser Ala Glu Asn Asn Phe His Gly Arg Thr Val Ser Ala Arg Glu
                165                 170                 175
Asn Gln Ser Thr Arg Ser Trp Cys Ile Asp Gln Pro Ser Ser Ser Ser
            180                 185                 190
Ser Pro Leu Phe Leu Cys Leu Ala Ile Pro Ser Arg Ala Lys Thr Thr
        195                 200                 205
Val Arg Ile Cys Gln Val Ser Asp Ala Gln Ser Leu Glu Pro Ile Ser
    210                 215                 220
Pro Ser Ser Ile Met Thr Arg Gln Pro Cys Gly Arg Pro Leu Arg Thr
225                 230                 235                 240
Arg Asp Pro Thr Leu Pro Pro Ser Trp
```

245

<210> 38723
<211> 125
<212> PRT
<213> A.fumigatus

<400> 38723
Val Leu Lys Gln Cys Leu Leu His Val Leu Leu Phe Arg Ser His Pro
1 5 10 15
Gln Ile Leu Phe Asn Ser Thr Arg Phe Val Gln Gly Phe Lys Met Arg
20 25 30
Glu Leu Asn Pro Leu Val Ser Glu Val Gln His Asp Lys His Arg Pro
35 40 45
Arg Glu Ala Glu Ala Leu Leu Met Leu Arg Lys Ile Ala Ser Leu Val
50 55 60
Lys Pro Ile Met Arg Gln Arg Ala Trp Arg Val Gly Thr Leu Cys Glu
65 70 75 80
Phe Tyr Pro Gln Gln Arg Asn Leu Leu Gly Leu Asn Ile Asn Ala Gly
85 90 95
Gln Lys Ile Cys Leu Arg Leu Arg Tyr Pro Ser Asp Glu Arg Gln Phe
100 105 110
Leu Pro Leu Glu Gln Val Val Asp Thr Met Leu His Glu
115 120 125

<210> 38724
<211> 74
<212> PRT
<213> A.fumigatus

<400> 38724
His Thr Phe Pro His Tyr Thr Thr Ala Met Ala Asp Ala Arg Arg Thr
1 5 10 15
Ser Pro Tyr Leu Pro Ala Lys Arg Ser Tyr Pro Asp Ser Val Ser His
20 25 30
Leu Tyr Asn Gly Pro Gly Cys His Tyr Ser Thr Val Asn Leu Gly Arg
35 40 45
Tyr His Gln Tyr Ser Thr Pro Phe Ser Tyr Thr Asp His Ser Asp Leu
50 55 60
Pro Ala Ser Ser Tyr Thr Ser Gln His Gln
65 70

<210> 38725
<211> 284
<212> PRT
<213> A.fumigatus

<400> 38725
Asp Thr Ser Leu Ile Pro Gly Thr Asn Thr Thr Asn Thr Met Ile Leu
1 5 10 15
Leu Gln Leu Leu Leu Phe Pro Ser Leu Leu Ser His Ser Leu Ala Ala
20 25 30
Val Leu Pro Arg His Ser Gln Arg Ile Leu Asn Pro Ala Ala Asp Asp
35 40 45
Leu Thr Lys Ile Phe Thr Phe Ser Asn Asp Phe Pro Ala Pro Asn Ser
50 55 60

```
Gly Asn Leu Gln Val His Asp Pro Asn Ile Ile Glu Glu Gln Asp Thr
65                  70                  75                  80
Leu Tyr Leu Phe Arg Gly Gly Leu His Ile Pro Tyr Trp Lys Ala Ser
                85                  90                  95
Ser Ile Ser Gly Pro Trp Thr Lys Val Gly Thr Val Leu Ser Lys Ala
            100                 105                 110
Ser Val Ile Ser Lys Lys Asn Asn Asn His Pro Trp Ala Pro Thr Val
        115                 120                 125
Thr Lys Tyr Lys Gly Arg Phe Tyr Cys Leu Tyr Ala Ile Ser Gln Thr
    130                 135                 140
Gly Ser Gln Asp Ser Ala Ile Gly Tyr Ala Ser Thr Ser Asp Leu Glu
145                 150                 155                 160
Lys Glu Trp Thr Asp His Gly Ala Leu Ile Asn Thr Gly Ser Gly Glu
                165                 170                 175
Arg Ser Gln Ile Ala Pro Gly Lys Asn Thr Asn Ala Ile Asp Pro Ala
            180                 185                 190
Phe Gln Val Asp Gln Lys Thr Gly Lys Pro Tyr Leu Ile Tyr Gly Ser
        195                 200                 205
Tyr Trp Asp Asp Ile Tyr Ser Leu Pro Leu Gln Val Asn Gln Asp Gly
    210                 215                 220
Thr Leu Ala Ile Lys Asn Glu Asn Lys Pro Asp Ala Thr His Leu Ser
225                 230                 235                 240
Tyr Gln Pro Gly Asn Trp Arg Pro Gln Glu Gly Ala Tyr Met Ser Tyr
                245                 250                 255
His Glu Pro Tyr Tyr Tyr Leu Trp Phe Ser Gln Gly Ile Cys Cys Gln
            260                 265                 270
Met Val Gln Lys Gly Phe Pro Leu Lys Gly Glu Glu
        275                 280
```

<210> 38726
<211> 86
<212> PRT
<213> A.fumigatus

<400> 38726

```
His Leu Thr Ser Arg Gly Thr Asp Ala Pro Phe Arg Tyr Arg Ile Arg
1               5                   10                  15
Val Gly Arg Ser Lys Ser Ile Thr Gly Pro Phe Val Asp Arg Ser Gly
            20                  25                  30
Lys Lys Leu Leu Glu Gly His Gly Glu Thr Val Tyr Gly Ser Asn Asn
        35                  40                  45
Gly Asn Val Tyr Ala Pro Gly Gly Glu Gly Val Leu Pro Gly Asn Gly
    50                  55                  60
Lys Arg Gly Asp Ile Leu Tyr Tyr His Phe Cys Glu Ser Phe Pro Ile
65                  70                  75                  80
Pro Met Gly Leu Ser Gly
                85
```

<210> 38727
<211> 896
<212> PRT
<213> A.fumigatus

<400> 38727

```
Gly Leu Thr Glu Tyr Pro Asp Leu Ala Tyr Gly Arg Glu Ala Lys Leu
1               5                   10                  15
```

```
Leu Cys Lys Lys Ile Val Ala Phe Phe Ala Leu Leu Ser Lys Thr Gln
            20                  25                  30
Glu Ala Gly Val Arg Lys Leu Gly Val Thr Gln Glu Leu Leu Ser Leu
        35                  40                  45
Val Thr Gly Leu Ala His Tyr Leu Lys Leu Leu Ile Arg Ile Gly Leu
    50                  55                  60
Gln Gly Ala Leu Lys Leu Glu Arg Glu Lys Glu Ser Pro Glu Gly Leu
65                  70                  75                  80
Tyr His Phe Leu Asn His Leu Ala Asp Ile Glu Thr Leu Arg Pro Pro
                85                  90                  95
Glu Gln Glu Glu Ser Pro Ala Asp Leu Met Ala Gly Val Ala Ser Leu
            100                 105                 110
Ala Asp Gln Leu Ser Asp Cys Cys Ala Ala Cys Lys Glu Pro Ile Asp
        115                 120                 125
Asp Glu Cys Val Met Leu Gly Glu Ser Arg Trp His Ile Lys Pro Pro
    130                 135                 140
His Leu Thr Cys Ala Ala Cys Gln Thr Asp Leu Thr Asp Thr Cys Gln
145                 150                 155                 160
Glu Ala Leu Trp Ser Pro Arg Ile Lys Lys Val Phe Cys Asn Asn Cys
                165                 170                 175
Ala Ser Gln Gln Gly Leu Ala Asn Glu Thr Gln Gly Gly Phe Thr Arg
            180                 185                 190
Val Ser Lys Leu Lys Gln Phe Val Phe Leu Leu Arg Val Ala Leu Ala
        195                 200                 205
Arg Leu Leu Ala Val Leu His Ala Gly Gly Thr Leu Gln Pro Thr Ser
    210                 215                 220
Gly Met Leu Phe Arg Arg Asn Ala Asn Thr Gly Gln Leu Trp Val Asn
225                 230                 235                 240
Thr Phe Leu Pro Leu Asp Asp Pro Ser Phe Ala Gly Ser Glu Thr Gln
                245                 250                 255
Asp Gly Asn Gln Thr Gln Ser Gly Gly Asn Ile His Arg Ser Thr Thr
            260                 265                 270
Arg Ser Lys Tyr Ala Gly Arg Asp Gly Ala Ala Glu Ser Ser Leu Glu
        275                 280                 285
Gln Thr Val Gly Glu Met Arg Arg Leu Arg Ser Ile Arg Asn Glu Arg
    290                 295                 300
Thr Leu Ser Thr Thr Tyr Lys Arg Ala Arg Ala Ser Arg Ile Ile Asp
305                 310                 315                 320
Gly Pro Glu Gly Arg Ser Val Arg Pro Gly Ser Ser Gly Gly Glu Gly
                325                 330                 335
Ser Asp Ala Arg Gly His Gly Phe Gln Ile Val Glu Glu Arg Asp Ala
            340                 345                 350
Asn Gly Glu Thr Val Thr Asp Leu Thr Phe Gly Asn Gln Asp Ala Leu
        355                 360                 365
Thr Leu Asp Asp Ile Pro Arg Ile Val Ala Ala Glu Gln Ala Lys Glu
    370                 375                 380
Gln Arg Pro Asn Ala Tyr Arg His Ala Gly Thr Lys Leu Val Gly Thr
385                 390                 395                 400
Thr Glu Pro Leu Pro Arg Tyr Asn Gln Gly His Gln Arg Gly Val Ser
                405                 410                 415
Ser Gly Asn Leu Glu Ser His Leu Ala Glu Arg Thr Thr Lys Thr Lys
            420                 425                 430
Lys Tyr Phe Ser Glu Leu Ser Ala Leu Glu Tyr Phe Ile Val Arg His
        435                 440                 445
Val Ala Val Leu Ser Met Glu Pro Leu Leu Glu Gly Tyr Phe Thr Leu
    450                 455                 460
```

```
Asp Glu Leu Leu Ser Leu Ile Glu Ser Arg Lys Pro Thr Ile Trp Asn
465                 470                 475                 480
Ile Phe Gly Arg Ala Phe Asn Lys Asp Ala Lys Lys Ala Gly Lys Lys
                485                 490                 495
Lys Gly Val Phe Gly Val Ser Leu Asp Phe Leu Val Glu Lys Glu Gly
            500                 505                 510
Thr Glu Ser Thr His Gly Val Gly Pro Gly Ala Leu Arg Val Pro Ala
        515                 520                 525
Leu Val Asp Asp Ala Val Ser Ala Met Arg Gln Met Asp Met Ser Val
    530                 535                 540
Glu Gly Val Phe Arg Lys Asn Gly Asn Ile Arg Arg Leu Lys Glu Ile
545                 550                 555                 560
Ser Glu Leu Ile Asp Asn Lys Tyr Asp Gln Val Asp Leu Thr Lys Glu
                565                 570                 575
Thr Pro Val Gln Ile Ala Ala Leu Leu Lys Lys Phe Leu Arg Glu Met
            580                 585                 590
Pro Asp Pro Leu Leu Thr Phe Lys Leu His Asn Leu Phe Val Ile Ser
        595                 600                 605
Gln Ser Lys Leu Ser Ser Arg Ile Pro Asp Ser Lys Pro Leu Leu Thr
    610                 615                 620
Ser Pro Phe Thr Glu Ile Pro Asp Pro Glu Lys Gln Lys Arg Leu Leu
625                 630                 635                 640
His Leu Thr Cys Cys Leu Leu Pro Lys Ala His Arg Asp Thr Met Glu
                645                 650                 655
Val Leu Phe Ala Phe Leu Asn Trp Thr Ser Ser Phe Ser His Val Asp
            660                 665                 670
Glu Asp Thr Gly Ser Lys Met Asp Ile His Asn Leu Ala Thr Val Ile
        675                 680                 685
Thr Pro Asn Ile Leu Tyr Pro Asn Thr Lys Asn Ser Thr Val Asp Glu
    690                 695                 700
Ser Phe Leu Ala Ile Glu Ala Val Asn Ala Leu Ile Thr Tyr Asn Asp
705                 710                 715                 720
Thr Met Cys Glu Val Asn Pro Ser Thr Thr Gln Cys Pro Val Asp Gln
                725                 730                 735
Leu Ala Asp Cys Leu Ile Lys Ile Pro Glu Asp Leu Gln Ala Val Leu
            740                 745                 750
Ser Asp Thr Thr Phe Phe Lys Asp Asn Asn Glu Val Ser Thr Lys Glu
        755                 760                 765
Ile Leu Lys Arg Tyr Gly Asp Ile Ala Arg Gly Ser Phe Ser Pro Lys
    770                 775                 780
Pro Asn Asn Gly Gly Glu Thr Val Thr Ile Thr Asn Pro His Asn Arg
785                 790                 795                 800
Gly Ala Asn Thr Pro Thr Ser Ala Arg Ile Glu Thr Asp Gln Ser Gln
                805                 810                 815
Asp Gly Pro Trp Gln Ala Gln Asn Pro Val Arg His Val Gln Asn Thr
            820                 825                 830
Gly Gly His Asn His Ala Ser Ser Ala Ser Ala Pro Tyr Asn Gly Met
        835                 840                 845
Glu Leu Ala Pro Gly Gln Ser Ala Ser Tyr Arg Glu Arg Ser Thr Ser
    850                 855                 860
Asn Gly Ser Gln Gln Asn Pro Ile Pro Gln Glu Gly Gln Pro Gln Gln
865                 870                 875                 880
Met Pro Tyr Arg Ser Arg Pro Gly Ala Gly Pro Met Gly Val Ala Gly
                885                 890                 895
```

<210> 38728

<211> 193
<212> PRT
<213> A.fumigatus

<400> 38728

```
Trp Asn Val Asp Ala Pro Ala Pro Gly Glu Asp Pro Thr Val Cys Gly
1               5                  10                  15
Ala Gln Asp Ser Tyr Tyr Glu His Glu Gly Arg Val Tyr Cys His Phe
            20                  25                  30
His Tyr Ser Thr Gln Phe Ala Gln Arg Cys His Gly Cys His Thr Ala
        35                  40                  45
Ile Leu Lys Gln Phe Val Glu Ile Phe Arg Asn Gly Gln Asn Gln His
    50                  55                  60
Trp His Pro Glu Cys Tyr Met Ile His Lys Phe Trp Asn Val Arg Leu
65                  70                  75                  80
Ala Pro Asn Gly Gln Pro Leu Glu His Pro Glu Ala Gly Leu Asp Ala
                85                  90                  95
Thr Asp Glu Glu Arg Asn Arg Val Arg Glu Glu Glu Asp Met Met Glu
            100                 105                 110
Glu Lys Val Tyr Lys Ile Trp Ser Ile Leu Ser Gly Phe Glu Glu Ser
        115                 120                 125
Ser Ala Ala Cys Ile Ser Asp Met Leu Leu His Val Ser Asn Gly Ser
    130                 135                 140
Tyr Leu Asp Gly Val Leu Val Ala Lys Arg Phe Ile Gly His Val Glu
145                 150                 155                 160
Val Leu Phe Arg Ala Ile Asp Glu Leu Ala Gly Tyr Ile Lys Ala Gln
                165                 170                 175
Glu Met Lys Gly Lys Tyr Arg Leu Ala Arg Thr Glu Asn Glu Val Glu
            180                 185                 190
Asp
```

<210> 38729
<211> 296
<212> PRT
<213> A.fumigatus

<400> 38729

```
Arg Leu Phe Gln Trp Phe Leu Ser Pro Arg Tyr Ala Ala Ser Lys Thr
1               5                  10                  15
Ser Met Gly Ala Asp Ser Lys Thr Arg Lys Gln Glu Ile Glu Asp Trp
            20                  25                  30
Ser Asn Asp Ile Tyr Arg Pro Gly Pro Arg Leu Ala Asp Gln His Leu
        35                  40                  45
Pro Asp Arg Pro Asn Lys Arg Ala Ser Phe Leu Pro Thr Thr Ser Arg
    50                  55                  60
Phe Ser Ser Pro Tyr Thr Val Ser Asn Gly Gly Lys Gln Lys Pro Gln
65                  70                  75                  80
Tyr Ile Thr Met Ala Ser Gln Asn Ser Thr Ser Arg Leu Leu Pro Ser
                85                  90                  95
Thr Ala Gly Ser Met Tyr Lys Gln Ser His Asn Ser Ser Gly Gly Ser
            100                 105                 110
Leu His Leu Glu Pro Ser Arg Leu Asn Pro Ala Ala Ser Gly Thr Ser
        115                 120                 125
Leu Ala Val Gly Ala Glu Ser Asp Val Leu Gly Ser Ser Ala Tyr Ile
    130                 135                 140
```

```
His Glu Ala Val Val Pro Gln Pro Pro Pro Glu Trp Gln Pro Tyr Gly
145                 150                 155                 160
Phe Pro Leu Ala His Ala Leu Cys Leu Val Thr Cys Tyr Ser Glu Gly
                165                 170                 175
Glu Glu Gly Ile Arg Thr Thr Leu Asp Ser Ile Ala Met Thr Asp Tyr
            180                 185                 190
Pro Asn Ser His Lys Thr Ile Ile Val Ile Cys Asp Gly Ile Ile Lys
        195                 200                 205
Gly Lys Gly Glu Glu Tyr Ser Thr Pro Asp Ile Val Leu Arg Met Met
    210                 215                 220
Arg Asp Pro Val Ile Pro Thr Asp Glu Val Glu Ala Phe Ser Tyr Val
225                 230                 235                 240
Ala Val Ala Thr Gly Ser Lys Arg His Asn Met Ala Lys Val Tyr Ser
                245                 250                 255
Gly Phe Tyr Asp Tyr Gly Glu Thr Ser Val Ile Pro Pro Glu Lys Gln
            260                 265                 270
Gln Arg Val Pro Met Met Ile Val Val Lys Cys Gly Thr Pro Ala Glu
        275                 280                 285
Ala Thr Gln Ala Lys Ala Trp Lys
    290                 295
```

<210> 38730
<211> 61
<212> PRT
<213> A.fumigatus

<400> 38730

```
Pro Glu Arg Gly Ile Thr Ala Val Val Ser Leu Phe Ile His Arg Leu
1               5                   10                  15
Pro Ser Ala Ser Val Ser Tyr Asp Ile Ala Arg Ala Tyr Gly Leu Ser
            20                  25                  30
Glu Thr Ile Ala Phe Leu Arg Thr Tyr Pro His Thr Asn Cys Asp Thr
        35                  40                  45
Ala Pro His His Phe Glu Ile Asn His Leu Pro Arg Tyr
    50                  55                  60
```

<210> 38731
<211> 419
<212> PRT
<213> A.fumigatus

<400> 38731

```
Ser Ala Val His Gln Leu Arg Gln Leu Arg Pro Lys Pro Gly Asn Arg
1               5                   10                  15
Gly Lys Arg Asp Ser Gln Ile Ile Leu Met Ser Phe Leu Gln Lys Val
            20                  25                  30
Met Phe Asp Glu Arg Met Thr Glu Leu Glu Tyr Glu Met Phe Asn Gly
        35                  40                  45
Leu Trp Asn Val Thr Gly Ile Pro Pro Asp Phe Tyr Glu Val Val Leu
    50                  55                  60
Met Val Asp Ala Asp Thr Lys Val Phe Pro Asp Ser Leu Thr His Met
65                  70                  75                  80
Ile Ser Ala Met Val Lys Asp Pro Asp Val Met Gly Leu Cys Gly Glu
                85                  90                  95
Thr Lys Ile Ala Asn Lys Thr Asp Ser Trp Val Thr Met Ile Gln Val
            100                 105                 110
```

```
Phe Glu Tyr Val Phe Pro Phe Leu Leu His Leu Ser Ser Phe Gly Leu
        115                 120                 125
Ser Leu Ser Phe Ile Ser Leu Ser Asn Lys Thr Cys Arg Tyr Phe Ile
    130                 135                 140
Ser His His Gln Ser Lys Ala Phe Glu Ser Val Phe Gly Gly Val Thr
145                 150                 155                 160
Cys Leu Pro Gly Cys Phe Cys Met Tyr Arg Ile Lys Ala Pro Lys Gly
                165                 170                 175
Gly Gln Asn Tyr Trp Val Pro Ile Leu Ala Asn Pro Asp Val Val Glu
            180                 185                 190
His Tyr Ser Glu Asn Val Val Asp Thr Leu His Arg Lys Asn Leu Leu
        195                 200                 205
Leu Leu Gly Glu Asp Arg Tyr Leu Ser Thr Leu Met Leu Arg Thr Phe
    210                 215                 220
Pro Lys Arg Lys Gln Ile Phe Val Pro Gln Ala Val Cys Lys Thr Val
225                 230                 235                 240
Val Pro Asp Lys Phe Met Val Leu Leu Ser Gln Arg Arg Arg Trp Ile
                245                 250                 255
Asn Ser Thr Val His Asn Leu Met Glu Leu Val Leu Val Arg Asp Leu
            260                 265                 270
Cys Gly Thr Phe Cys Phe Ser Met Gln Phe Val Val Phe Ile Glu Leu
        275                 280                 285
Val Gly Thr Leu Val Leu Pro Ala Ala Ile Ala Phe Thr Phe Tyr Val
    290                 295                 300
Val Ile Ile Ser Ile Ile Lys Lys Pro Val Gln Ile Ile Pro Leu Val
305                 310                 315                 320
Leu Leu Ala Leu Ile Leu Gly Leu Pro Gly Val Leu Ile Val Val Thr
                325                 330                 335
Ala His Arg Leu Val Tyr Val Leu Trp Met Phe Ile Tyr Leu Leu Ser
            340                 345                 350
Leu Pro Ile Trp Asn Phe Val Leu Pro Thr Tyr Ala Tyr Trp Lys Phe
        355                 360                 365
Asp Asp Phe Ser Trp Gly Asp Thr Arg Lys Thr Ala Gly Glu Gln Asp
    370                 375                 380
Lys Gly His Glu Ala Gly Glu Gly Glu Phe Asp Ser Ser Lys Ile Thr
385                 390                 395                 400
Met Lys Arg Trp Arg Asp Phe Glu Arg Gly Met Met Leu Ser Thr Pro
                405                 410                 415
Tyr Glu Arg
```

<210> 38732
<211> 398
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (393)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38732

```
Ser Pro Thr Arg Asn Asn Val Val Gly Tyr Leu Ser Val Cys Thr Thr
1               5                   10                  15
Leu Gly Ala Val Trp Cys Leu Ser Ile Ser Thr Trp Asn Asn Thr Leu
            20                  25                  30
```

```
Cys Asp Leu Leu Ala Leu Ser Ala Ala Thr Trp Leu Asp Tyr Pro Ser
        35                  40                  45
Val Ala Cys Ala Ser Leu Arg Leu Gly Lys Lys Gln Ser Val Tyr Asn
    50                  55                  60
Gln Gly Met Pro Gly Pro Ser Asp Phe Ala Phe Thr Thr Ser Ala Ser
65                  70                  75                  80
Ser Ser Pro Ser Tyr Phe Phe Thr Ser Pro Ser Glu His Pro Thr His
                85                  90                  95
Pro Arg Tyr Arg Asn Arg Thr Ser His Ala Ser Ser Cys Asp Ala Pro
            100                 105                 110
Gly Pro Ser Arg Leu Arg Pro Val Asp Met Ser Phe Gly Gln Ala Ser
        115                 120                 125
Phe Tyr Asp Asp Gln Asp Ser Asp Glu Met Ser Arg Glu Gly Asp Glu
    130                 135                 140
His Ala Ala Leu Arg Thr Asp Ile Asp Glu Phe Pro Ile Val Ala Thr
145                 150                 155                 160
Ile Ser Glu Ser His Gln Val Gly Leu Thr Pro Thr Asn Asp Leu Gly
                165                 170                 175
Ser Ser Asp Ala Gly Ile Ser Ala Phe Thr Ala Val Ser Gln Tyr Pro
            180                 185                 190
Asn Ala Phe Asp Asn Asp Ser Asn Ala Phe Ala Val Thr Glu Val Val
        195                 200                 205
Asn Ala Val Ile Gly Arg Glu Glu Tyr Leu Arg Gly Glu Gly Arg His
    210                 215                 220
Val Arg Ala Ala Ser Val Gly Arg Ser Ser Ser Pro Pro Ala Asp Leu
225                 230                 235                 240
Tyr Met Ser Asp Ser Glu Thr Thr Asp Val Leu Gly His Gln Gly Gly
                245                 250                 255
Val Pro Ile Gly Pro Tyr Met Ala Asp Gly Gly Met Thr Met Asp Asn
            260                 265                 270
Ile Leu Ala Asp Asp Pro Thr Leu Glu His His Phe Ser Thr Ile Pro
        275                 280                 285
Glu Glu Ser Asp Glu Asp Asp Val Gly Asp Leu Ile Met Asp Tyr Glu
    290                 295                 300
Ser Pro Met Thr Arg Asp Gly Phe Ser Val Ser Asp His Glu Glu Asp
305                 310                 315                 320
Pro Asp Asp Thr Gln Lys Phe Tyr Val Asp His Asp Asp Asp Tyr Tyr
                325                 330                 335
Glu Glu His Ile Asp Arg Pro Arg Thr Arg Glu Ala Thr Ala Gln Leu
            340                 345                 350
Thr Asp Val Asp Phe Asn Asp Phe Tyr Arg Ala Phe Asp Tyr Asp Pro
        355                 360                 365
Phe Leu Val Met Glu Ala Ala Pro Thr Gly Asn His Gly Asp His Asn
    370                 375                 380
Lys Ser Ser Pro Arg Gly Trp Lys Xaa Pro Arg Ser Phe Leu
385                 390                 395
```

<210> 38733
<211> 199
<212> PRT
<213> A.fumigatus

<400> 38733

```
Cys Leu Met Ser Arg Asp Val Asp Val Arg Gln Glu Ile Leu His Lys
1               5                   10                  15
Thr Leu Gln Glu Val Ala Gln Glu Asp Asn Gly Asp Glu Leu Ala Asn
```

```
            20                  25                  30
Pro Cys Val Ile Cys Leu Glu Ala Ile Thr Glu Pro Ala Val Thr Val
        35                  40                  45
Pro Cys Ala His Ala Asn Phe Asp Phe Leu Cys Ile Val Ser Trp Leu
    50                  55                  60
Glu Gln Arg Arg Asn Cys Pro Leu Cys Met Pro Pro Tyr Leu Cys Asn
65                  70                  75                  80
Arg Pro Ser Leu Ser Val His Phe Val Leu Thr Phe Leu Gly Lys Ser
                85                  90                  95
Asp Val His Thr Val Lys Tyr Glu Leu Glu Asn Pro Gln Gly Pro Lys
            100                 105                 110
Leu Tyr Lys Leu Pro Ala Val Pro Pro Ser Ala Ala Asn Ala Pro Asp
        115                 120                 125
Ser Thr Ser Gln His Arg Gly Leu Leu Ser Arg Gly Pro Arg His Arg
    130                 135                 140
Arg Gln Pro Ala Glu Ser Pro Arg Pro Arg Glu Pro Asp Asp Pro Ile
145                 150                 155                 160
Ile Arg Arg Gln Tyr Val Tyr Arg His Gln Leu Tyr Ser Leu Arg Val
                165                 170                 175
Gly Ser Asn Arg Leu Ser Gln Tyr Arg Glu Leu Ser Pro Glu Ser Phe
            180                 185                 190
Asn Arg Asp Glu Glu Leu Val
        195
```

<210> 38734
<211> 80
<212> PRT
<213> A.fumigatus

```
<400> 38734
Ala Arg Val Met Phe Thr Leu Ser Ser Thr Ser Leu Arg Thr Pro Lys
1               5                   10                  15
Val Arg Ser Phe Thr Asn Tyr Leu Leu Phe Leu His Pro Leu Gln Met
            20                  25                  30
Arg Leu Thr Leu His Leu Asn Thr Glu Gly Cys Tyr Pro Val Val Leu
        35                  40                  45
Ala Thr Asp Val Ser Pro Gln Lys Ala His Asp Pro Glu Ser Arg Thr
    50                  55                  60
Ile Pro Leu Tyr Gly Gly Asn Met Ser Thr Val Ile Ser Phe Thr His
65                  70                  75                  80
```

<210> 38735
<211> 68
<212> PRT
<213> A.fumigatus

```
<400> 38735
Thr Phe Phe Val Arg Thr Ile Ser Thr Arg Phe Ile Pro Pro Ile Cys
1               5                   10                  15
Gly Phe Pro Tyr Ile Ser Ala Met Trp Leu Thr Arg Pro Leu Leu Thr
            20                  25                  30
Leu Asn Gln Asn Gln Phe Thr Gly Arg Gly Asn Glu Phe Ile Ser Leu
        35                  40                  45
Arg Asn Glu Tyr Asn Pro Lys Leu Trp Leu Lys Ser Gln Ala Ala Leu
    50                  55                  60
Asn Tyr Ser Asn
```

65

<210> 38736
<211> 110
<212> PRT
<213> A.fumigatus

<400> 38736
Thr Asp Cys Val Thr Arg Asn Val Leu Tyr Gly Leu Val Trp Phe Ala
1 5 10 15
Asp Trp Pro Gln Val Arg Leu Val Glu Leu Ser Met Glu Gln Lys Asp
20 25 30
Ala Leu Thr Val Leu Leu Thr Gly Arg Ser Glu Asn Gly Phe Ala Asp
35 40 45
Ile Ile Arg Arg Met Val Gly Ser Lys Lys Leu Glu Phe Asp Leu Ile
50 55 60
Cys Leu Lys Pro Glu Val Gly Pro Asn Ser Glu Arg Phe Ser Thr Thr
65 70 75 80
Met Glu Phe Lys Gln Thr Phe Leu Gln Asp Leu Val Leu Thr Tyr Glu
85 90 95
Gln Ala Asp Glu Ile Arg Val Tyr Glu Asp Arg Val Lys Gln
100 105 110

<210> 38737
<211> 81
<212> PRT
<213> A.fumigatus

<400> 38737
Glu Thr Asn Thr Ile Tyr Phe Phe Asn Ala Leu Gly Phe Asn Thr Gly
1 5 10 15
Ser Ser Pro Ser Gly His Ile Leu Val Asp Phe Ser Pro Arg Arg Pro
20 25 30
Asn Gln His Ala Ser Gly Leu Arg Ser Pro Ser Leu Pro Ala Asp Phe
35 40 45
Arg Leu Gln Gly Thr Pro Arg Phe Val Gly Asp Ser Ser Ser Ser Thr
50 55 60
Trp Arg Phe Ile Gln Asn Leu Arg Gly Leu Gln Ile His Gly Ala Ser
65 70 75 80
Ser

<210> 38738
<211> 377
<212> PRT
<213> A.fumigatus

<400> 38738
Asn Ser Lys Pro Ser Val Arg Arg Pro Cys Leu Arg Asp Tyr Ser Phe
1 5 10 15
Gly Ala Ser Val Lys Gly Phe Arg Asp Phe Phe Glu Asp Leu Asn Arg
20 25 30
Ser Leu Gln Val Val Pro Ala Pro Arg Lys Pro Ile Asn Ala Glu Val
35 40 45
Ile Gln Val Ala Glu Gly Cys Thr Phe Leu Ser Pro Val Val Glu Thr
50 55 60

```
Ala Glu Val Gln Arg Met Ile Asn Ser His Asn Lys Ser Ile Arg Gln
65                  70                  75                  80
Ala Thr Ser Asn Ala Thr Gln Ser Pro Tyr Gly Arg Leu Arg Ile Lys
                85                  90                  95
Arg Thr Ile Phe Tyr Thr Gly Tyr Leu Ile Ser Asn Ala Asp Ser Asn
            100                 105                 110
Gln Leu Ile Ser Gln Leu Leu Thr Pro Leu Leu Pro Ser Gly Leu Ala
        115                 120                 125
Glu Ser Asn Asp Leu Lys Tyr Met Ala Asn Ser Ile Leu Ile Thr Pro
    130                 135                 140
Arg Pro Ala Pro Arg Ser Ile Leu Asn Lys Val Gly Gly Ile Gly Lys
145                 150                 155                 160
Lys Leu Thr Trp Gln Val Thr Gly Thr Ala Val Phe Glu Asn Lys Val
                165                 170                 175
Trp Ala Ala Arg Val Ala Pro Val Pro Ala Thr Glu Lys Tyr Tyr Thr
            180                 185                 190
Glu Asn Pro Leu Pro Val Ile Val Leu Ala Val Arg Lys Gly Ala Arg
        195                 200                 205
Pro Ile Asp Ala Gly Lys Ile Gln Asn Trp His Pro Val Pro Ala Glu
    210                 215                 220
Lys Ala Leu Thr Phe Glu Thr Val Val Gly Glu Lys Val Val Leu Arg
225                 230                 235                 240
Val Glu Glu Glu Asn Pro His Glu Gly Glu Trp Glu Ser Gln Phe Leu
                245                 250                 255
Asn Lys Asn Arg Lys Arg Arg His Gln Gln Glu Arg Asp Gln Asp Ile
            260                 265                 270
Leu Tyr Pro Gln Ser Cys Gln Asn Asp Glu Pro Leu Ser Gln Thr Arg
        275                 280                 285
Pro Gln Pro Tyr Tyr Asn Ser Arg His Gly Gly Ser Ser Arg His His
    290                 295                 300
Asp Asp Gly Leu Arg Arg Gly Gly Ser His Arg Ser Gly Arg Gly Arg
305                 310                 315                 320
Gly Gly Ala Pro Arg Gly Lys Gly His Ser Ser Arg Gly Gly Thr Arg
                325                 330                 335
Gly Arg Ala Arg Gly Arg Asp Gly Gly Pro Ala Gly Tyr Arg Ser Leu
            340                 345                 350
Asp Asp His Val Gly Tyr Asp Gly Gly Tyr Glu Asp Lys Pro Gly Pro
        355                 360                 365
Gly Gly Ala Gly Pro Val Met Asn Tyr
    370                 375
```

<210> 38739
<211> 381
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (346)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38739

```
Arg Phe Ile Gly Glu Val Ser Leu Tyr Cys Arg Thr Ile Leu Leu Pro
1               5                   10                  15
Asn Arg Glu Leu Ser Ile Arg Arg Leu Ser Phe Cys Phe Asn Thr Arg
            20                  25                  30
```

```
Arg Trp Tyr Glu Asn Pro Ser Ile Asn Ile Ile Glu Met Met Met Arg
        35                  40                  45
Ser Phe Val Leu Gly Ser Ile Val Pro Thr Val Leu Gly Leu Val Pro
    50                  55                  60
His His Val Ser Val Ala Asn Glu Lys Thr Ser Leu Thr Leu Leu Tyr
65                  70                  75                  80
Gln Asn Asn Leu Asn Ala Ser Asp Ala Ser Asn His Ile Ser Ala Ile
                85                  90                  95
Leu Leu Asp Pro Met His Gln His Asp Val Arg Glu Ala Cys Gln Gln
            100                 105                 110
Phe Gly Glu Thr Leu Ile Ser Gln Thr Ser Leu Arg Asp His Lys Glu
        115                 120                 125
Asp Phe Lys Asn Leu Phe Thr Trp Leu Ala His Thr Gly Lys Thr Lys
    130                 135                 140
Ser Asp Ala His Phe Tyr Ile Arg Glu Gly Val Leu Ser Val Pro Lys
145                 150                 155                 160
Asp Ser Asp Asp Phe Ala Val Ser Ser Phe Pro Arg Gln Asn Ala Arg
                165                 170                 175
Leu Pro Val Leu Cys Thr Gln Thr Gly Asn Asp Ser Val Ile Glu Asp
            180                 185                 190
Ala Asp Ser Arg Pro Lys Gln Leu Arg Val Ile Ser Glu Gly Asn Ser
        195                 200                 205
Tyr Ile Gly Phe Arg Asp Gln Lys Ser Phe Arg Phe Leu Gly Ile Pro
    210                 215                 220
Tyr Ala Asp Pro Pro Gly Arg Phe Lys His Ala Ile Pro Tyr Ser His
225                 230                 235                 240
Arg Asp Gln Thr Ile His Ala Thr Lys Tyr Gly Ser Ala Cys Ala Gln
                245                 250                 255
Ser Gly Gly Gly Ser Glu Asp Cys Leu Tyr Leu Asn Ile Gln Thr Pro
            260                 265                 270
Tyr Ile Pro Lys Lys Gly Ser Gln Glu Gly Leu Lys Pro Val Met Phe
        275                 280                 285
Trp Ile His Gly Gly Gly Phe Thr Gly Gly Thr Gly Ala Asp Pro Leu
    290                 295                 300
Thr Asp Gly Gly Asn Leu Ala Ser Arg Glu Asp Leu Val Val Val Thr
305                 310                 315                 320
Phe Asn Tyr Arg Leu Ser Thr Leu Gly Phe Leu Ala Ile Pro Gly Thr
                325                 330                 335
Asp Ile Thr Gly Asn Tyr Gly Ile Ser Xaa Gln Ile Leu Ala Leu Glu
            340                 345                 350
Val Leu Phe Pro Leu Leu His Ile Asp Ala Ser Glu Thr Asn Ile Thr
        355                 360                 365
Val Thr Gly Asp Tyr Lys Arg Tyr Arg Ala Asn Ser Lys
    370                 375                 380
```

<210> 38740
<211> 485
<212> PRT
<213> A.fumigatus

<400> 38740

```
Leu His Pro Leu Leu Gln His Leu Asp Ile His Leu Ser Leu Phe Pro
1               5                   10                  15
Lys Lys Lys Ala Phe Phe Leu Pro Ile Phe Ile Pro Ala Pro Leu Ser
            20                  25                  30
Cys Phe Arg Gln Ser Ser Thr Cys His Arg Lys Met Ser Ile Leu Ser
```

```
        35                  40                  45
Asp Ala Ile Val Val Val Ala Val Val Ser Pro Met Phe Ile Ser Ala
    50                  55                  60
Val Lys Ser Ile Leu Glu Tyr Leu Ala Cys Ala Asn Ile Tyr Ile Ser
65                  70                  75                  80
Lys Ala Phe Arg Trp Met Ser Ala Phe Lys Leu Asp Gly Ile Leu Lys
                85                  90                  95
Lys Leu Asp Leu Trp Arg Glu Leu His Thr Ser Asn Val Lys Pro Phe
            100                 105                 110
Ser Ala Ser Thr Pro Val Pro Glu Phe Asp Asn Ala Cys Leu Gly Thr
        115                 120                 125
Asp Asn Leu His His Lys Asn His Thr Phe Phe Asp Leu Asp Leu Gly
    130                 135                 140
Asp Leu Gly Ser Leu Trp Leu Gly Arg Ile Ser Gln Asn Leu Val Pro
145                 150                 155                 160
Thr Ser Gly His Leu Asn Asn Gly Pro Thr Phe Gly Ser Leu His Ser
                165                 170                 175
Glu Val Leu Leu Leu Asn Trp Gln Val Leu Leu Phe Met Met Ile Phe
            180                 185                 190
Leu Leu Ile Ile Pro Ala Val Thr Ser Ile Cys Thr Trp Tyr Ser Arg
        195                 200                 205
Arg His Cys Phe Gln Val Ala Asn Ile Glu Ile Leu Asp Phe Ile Asn
    210                 215                 220
Glu Val Arg Ser Trp Arg Glu Phe Leu Phe Lys Arg Met Ser Ala Ala
225                 230                 235                 240
Val Ser Ile Leu Asn Gly Lys Ile Asp Ser Met Ile Lys Gln Ile Val
                245                 250                 255
Met Glu His Glu Arg Val Ser Ala Glu Leu Pro Thr Phe Leu Asp Ala
            260                 265                 270
Glu Val Arg Glu Leu Arg Asp Ala Leu Asp Thr Gln Phe Gln Asn Glu
        275                 280                 285
Asp Asp His His Ile Leu Gly Val Lys Asn Ser Ala Asp Asn Leu Glu
    290                 295                 300
Arg Ala Arg Arg Arg Phe Pro Asp Pro Gly Gly Ile Glu Ala Glu Cys
305                 310                 315                 320
Lys Gly Leu Gln Ser Val Phe Gln Arg Trp Arg Gln Arg Met Gly Asn
                325                 330                 335
Phe Leu Glu His Ala Ser Ser Glu Ala Glu Arg Ser Asp Asn Ile Gln
            340                 345                 350
Ile Pro Val Lys Arg Ile Met Glu Leu Pro Glu Lys Ala Pro Thr Thr
        355                 360                 365
Gln Ala Thr Gln Thr Lys Tyr Glu Ala Met Gln Asp Lys Val Asp Lys
    370                 375                 380
Asn Glu Pro Ala Ser Leu Thr Val Ser Glu Lys Gln Cys Ser Glu Ala
385                 390                 395                 400
Glu Glu Pro Ile Ser Thr Met Gly Leu Trp Ala Thr Ala Ser Gly Tyr
                405                 410                 415
Pro Ala Pro Thr Pro Ala Glu Ile Glu Glu Gly Arg Arg Ile Arg Arg
            420                 425                 430
Glu Arg Val Ala Lys Arg Leu Thr Glu Asn Asn Gly Gln Arg Tyr Val
        435                 440                 445
Arg Ser Glu Ser Gly Pro Arg Lys His Arg Cys Leu Phe Arg Asn Arg
    450                 455                 460
Leu His Gly Leu His Lys Gln Asp His Ala Ala Ala Arg Gln Ser Leu
465                 470                 475                 480
Asn Leu Thr Leu His
```

485

<210> 38741
<211> 66
<212> PRT
<213> A.fumigatus

<400> 38741
Gln Ile Ile Lys Cys Ile Ile Asn Cys Trp Thr Gly Asn Met Thr Asp
1 5 10 15
Pro Arg Pro Tyr His Leu Leu Arg Tyr Arg Ile Pro Gly Tyr Gln Asp
20 25 30
Val Asn Met Ser Leu Thr Ser Gly Ala Ser Tyr Gly Thr Leu Leu Gly
35 40 45
Val Gln Val Ser Gln Val Asn Phe Ile Leu Pro Ala Arg Tyr Pro Leu
50 55 60
Arg Cys
65

<210> 38742
<211> 99
<212> PRT
<213> A.fumigatus

<400> 38742
Trp Gln Glu Glu Leu Arg Pro Cys Thr Pro Leu Lys Gly Asp Asp Gly
1 5 10 15
Ser Glu Gln Glu Ile Arg Gln Thr Ser Trp Ser Val Lys Ser Asp Gln
20 25 30
His Gly Gln Pro Tyr Cys Tyr Ser Leu Leu Arg Cys Ser Ser Gln Gln
35 40 45
Ala Leu Val Leu Lys Gly Ser Leu Asn Gly Thr Phe Leu Leu Ile Ala
50 55 60
Asn Leu Arg Ile Ala Tyr Gln Ser Ile Lys Leu Phe Leu Tyr Val Leu
65 70 75 80
Asn Ala Leu Tyr Ile Ser Phe Gln Gln Gly Asp His Thr Ser Thr Arg
85 90 95
Leu Gln Val

<210> 38743
<211> 63
<212> PRT
<213> A.fumigatus

<400> 38743
Ser Ile Leu Ile Met Ala Glu Lys Glu Ala Thr Val Tyr Ile Val Asp
1 5 10 15
Val Gly Lys Ser Met Gly Glu Lys Arg Asn Gly Arg Ser Met Thr Asp
20 25 30
Leu Glu Trp Ala Met Gln Tyr Val Trp Asp Cys Ile Thr Ala Thr Val
35 40 45
Ser Ile Ala Leu Ser Met Arg Gly Tyr Gly Arg Glu Ala Asn Cys
50 55 60

<210> 38744

<211> 149
<212> PRT
<213> A.fumigatus

<400> 38744
Asp Lys Asp Thr Glu His Pro Gly Phe Val Pro Arg Thr Arg Leu Val
1 5 10 15
Leu Phe Val Ser Arg Arg Trp Gly Cys Leu Arg His Val Ile Glu Ser
20 25 30
Ala Tyr Val Met His Arg Pro Gly Arg Ser Thr Ala Ala Leu Asn Cys
35 40 45
Ile Thr Lys Asp Lys Ser Cys Arg Gly Ser Val Val Gly Ser Asp Gln
50 55 60
Lys Met Pro Ser Thr Arg Val Arg Pro Ile Glu Lys Phe Ala Lys Ala
65 70 75 80
Ala Ser Lys Cys Ser Ala Glu Val Cys Ser Cys Ser Pro Cys Cys Leu
85 90 95
Tyr Cys Arg Cys Leu Ile Ser Pro Gln Ala Ala Thr Tyr Gly Lys Cys
100 105 110
Ile Val Ala Asp Tyr Asn Ala Val His Lys Asp Met Cys Ala Lys Glu
115 120 125
Phe Met Lys Leu Lys Asp Cys Phe Leu Val Cys Cys Leu Glu Pro Met
130 135 140
Val Asp Ala Ala Tyr
145

<210> 38745
<211> 246
<212> PRT
<213> A.fumigatus

<400> 38745
Thr Leu Ala Ala Gly Gln Asp Pro Ala Val His His Val Ser Ile Gly
1 5 10 15
Ser Phe Ser Leu Gly Val Glu Asp Lys Val Asn Ala Ile Val Leu Leu
20 25 30
Glu Gln Ser Gly Leu Thr Leu Glu Glu Leu Val Ala Val Pro Gln Arg
35 40 45
Glu Glu Asn Leu Gly Asn Asp Leu Leu His Thr Arg Leu Leu Glu Ser
50 55 60
Glu Arg Leu Arg Thr His Asn Gly Arg Val Asp Gln Ile Glu Ser Lys
65 70 75 80
Gly Ile Gly Thr Val Ala Leu His Asp Gln Arg Arg Ile Arg Val Val
85 90 95
Leu Gln Ser Phe Arg His Leu Leu Ser Ile Phe Ser Lys Asn Asn Ser
100 105 110
Val His Asn Ala Val Leu Glu Gly Gln Ser Ala Glu Glu Met Cys Ser
115 120 125
Gln Asp Ser Gln Ser Val Glu Pro Thr Thr Arg Leu Ile Glu Thr Leu
130 135 140
Gly Asn Glu Ile Thr Gly Glu Ala Leu Leu Lys Leu Leu Leu Val Leu
145 150 155 160
Lys Gly Ile Met Leu Gly Cys Val Trp His Ala Thr Arg Phe Glu Pro
165 170 175
Ala Val Lys His Leu Ala Asp Thr Ser Glu Asp Thr Leu Ala Leu Leu
180 185 190

```
Thr Trp Asp Ser Asp Leu Val His Leu Val Thr Met Lys Val Ser Asp
        195                 200                 205
Phe Ser Phe Val Ala Thr Gln Leu Leu Glu Leu Leu Asp Thr Ser Tyr
    210                 215                 220
Ser His Asp Phe Leu Glu Val Val Ala Asp Pro Gln Arg Lys Trp Cys
225                 230                 235                 240
Ser Pro Glu Ala Val Ser
                245
```

<210> 38746
<211> 67
<212> PRT
<213> A.fumigatus

<400> 38746

```
Val Arg Asn Arg Gln Glu Thr Arg His Val Gly Leu Glu Ala Val Glu
1               5                   10                  15
Lys Leu Gly Ile Glu Lys Tyr Asn Glu Glu Cys Arg Ala Ile Val Met
            20                  25                  30
Arg Phe Ala Ser Glu Trp Arg Glu Thr Ile Glu Arg Leu Gly Arg Trp
        35                  40                  45
Ile Asp Phe Asp Asn Asp Tyr Lys Ala Arg Tyr Pro Pro Cys Glu Tyr
    50                  55                  60
Ile Ser Val
65
```

<210> 38747
<211> 156
<212> PRT
<213> A.fumigatus

<400> 38747

```
Arg Ser Leu Leu Leu Lys Arg Arg Cys Leu Leu Thr Ala Ser Ser Ser
1               5                   10                  15
Ser Lys Gly Asp Leu Val Val Lys Arg Gly Leu Lys Glu Asp Val Ala
            20                  25                  30
Ser Glu Gly Met Glu Pro Asn Ala Asp Ala Asp Val Leu Thr Ile Leu
        35                  40                  45
Asp Ala Asn Leu Tyr Pro Glu Leu Ala Gln Gln Gly Leu Gly Arg Glu
    50                  55                  60
Ile Ile Asn Arg Leu Gln Arg Leu Arg Lys Lys Ala Gly Leu Val Pro
65                  70                  75                  80
Thr Asp Asp Val Arg Met Glu Tyr Ala Val Leu Ser Asp Pro Asp Ser
                85                  90                  95
Val Gly Ile Asp Glu Ala Phe Lys Thr Gln Ala Lys Ala Ile Glu Lys
            100                 105                 110
Ala Val Arg Arg Pro Leu Glu Gln Val Ala Val Val Asp Gly Lys Val
        115                 120                 125
Pro Ser Gly Asp Lys Glu Ala Leu Ile Met Glu Glu Glu Gln Glu Val
    130                 135                 140
Gln Lys Ala Thr Phe Leu Leu Arg Leu Leu Lys Leu
145                 150                 155
```

<210> 38748
<211> 156
<212> PRT

<213> A.fumigatus

<400> 38748

```
Val Ile Ala Ala Leu His Leu Ser Ser Phe Phe Ile Tyr Pro Ala Thr
1               5                  10                  15
His Pro Ser Leu Pro Ala Thr Asp Arg Thr Asp Ser His Tyr Leu Thr
            20                  25                  30
Thr Val Pro Ser Pro Val Met Ser Ile Asp Phe Pro Ala Glu Glu Glu
        35                  40                  45
Ile Thr Leu Lys Arg Trp Arg Glu Ile Asn Ala Phe Gly Arg Gln Val
    50                  55                  60
Glu Leu Ser Arg Gly Arg Lys Pro Tyr Thr Phe Tyr Asp Gly Pro Pro
65                  70                  75                  80
Phe Ala Thr Gly Leu Pro His Tyr Gly His Leu Leu Ala Ser Thr Ile
                85                  90                  95
Lys Asp Ile Ile Pro Arg Tyr Trp Ser Met Lys Gly Tyr Tyr Val Glu
            100                 105                 110
Arg Arg Phe Gly Trp Asp Thr His Gly Val Pro Ile Glu Tyr Glu Ile
        115                 120                 125
Asp Lys Lys Leu Gly Met Trp Ala Trp Arg Leu Ser Lys Asn Ser Ala
    130                 135                 140
Ser Lys Ser Thr Met Arg Ser Ala Glu Leu Leu Ser
145                 150                 155
```

<210> 38749
<211> 775
<212> PRT
<213> A.fumigatus

<400> 38749

```
Thr Met Asn Ser Ser Phe Met Glu Ser Val Trp Trp Val Phe Lys Gln
1               5                  10                  15
Leu Phe Asp Lys Gly Leu Val Tyr Arg Gly Tyr Arg Val Met Pro Tyr
            20                  25                  30
Ser Thr Ala Leu Asn Thr Pro Leu Ser Asn Phe Glu Ala Gln Gln Asn
        35                  40                  45
Tyr Lys Asp Val Gln Asp Pro Ala Val Val Val Ser Phe Pro Leu Val
    50                  55                  60
Asp Asp Pro Glu Thr Cys Leu Leu Ala Trp Thr Thr Thr Pro Trp Thr
65                  70                  75                  80
Leu Pro Ser Asn Val Ala Leu Ala Val Asn Pro Gly Phe Glu Tyr Ile
                85                  90                  95
Lys Ile Leu Asp Glu Ala Ser Lys Lys His Tyr Ile Leu Leu Glu Ser
            100                 105                 110
Leu Leu Arg Thr Leu Tyr Lys Asp Pro Lys Lys Ala Lys Phe Lys Ile
        115                 120                 125
Val Asp Arg Phe Lys Gly Val Asp Met Lys Asp Trp Lys Tyr Gln Pro
    130                 135                 140
Leu Phe Asp Tyr Phe Tyr Glu Glu Phe Lys Asp His Gly Phe Arg Val
145                 150                 155                 160
Ile Asn Gly Asp Tyr Val Ser Ala Glu Asp Gly Thr Gly Ile Val His
                165                 170                 175
Gln Ser Pro Ala Phe Gly Glu Glu Asp Tyr Asn Val Ala Met Ala Ser
            180                 185                 190
Gly Val Ile Ser Glu Thr Arg Leu Pro Pro Asn Pro Val Asp Glu Lys
        195                 200                 205
```

```
Gly Cys Phe Thr Ala Glu Val Pro Asp Phe Val Gly Gln His Val Lys
    210                 215                 220
Ala Ala Asp Lys Ala Ile Ile Lys His Leu Lys Gly Thr Gly Arg Leu
225                 230                 235                 240
Ile Val Asp Ser Gln Ile Thr His Ser Tyr Pro Phe Cys Trp Arg Ser
                245                 250                 255
Asp Thr Pro Leu Ile Tyr Arg Ala Val Pro Ser Trp Phe Val Lys Ile
            260                 265                 270
Gly Pro Ile Ile Pro Gln Met Leu Gln Gly Ile Glu Glu Ser His Trp
        275                 280                 285
Val Pro Ser Phe Val Lys Glu Arg Arg Phe Ala Ser Trp Ile Gln Asn
    290                 295                 300
Ala Arg Asp Trp Asn Ile Ser Arg Asn Arg Phe Trp Gly Thr Pro Leu
305                 310                 315                 320
Pro Leu Trp Val Ser Asp Asp Phe Lys Glu Val Val Ala Val Gly Ser
                325                 330                 335
Val Glu Glu Leu Lys Gln Leu Ser Gly Tyr Glu Gly Glu Ile Thr Asp
            340                 345                 350
Leu His Arg Asp Lys Val Asp Lys Ile Thr Ile Pro Ser Lys Gln Gly
        355                 360                 365
Lys Gly Val Leu Arg Arg Val Ser Glu Val Phe Asp Cys Trp Phe Glu
    370                 375                 380
Ser Gly Ser Met Pro Tyr Ala Ser Gln His Tyr Pro Phe Glu Asn Lys
385                 390                 395                 400
Glu Gln Phe Glu Lys Ser Phe Pro Gly Asp Phe Ile Ala Glu Gly Leu
                405                 410                 415
Asp Gln Thr Arg Gly Trp Phe Tyr Thr Leu Thr Val Leu Gly Thr His
            420                 425                 430
Leu Phe Gly Thr Leu Pro Phe Lys Asn Cys Val Val Asn Gly Ile Val
        435                 440                 445
Leu Ala Glu Asp Gly Lys Lys Met Ser Lys Arg Leu Lys Asn Tyr Pro
    450                 455                 460
Asp Pro Thr Leu Ile Met Gln Arg Tyr Gly Ser Asp Ala Leu Arg Leu
465                 470                 475                 480
Tyr Leu Ile Asn Ser Pro Val Val Arg Ala Glu Pro Leu Arg Phe Lys
                485                 490                 495
Glu Ser Gly Val Lys Glu Ile Val Ala Lys Val Leu Leu Pro Leu Trp
            500                 505                 510
Asn Ser Tyr Lys Phe Phe Glu Gly Gln Ala Ala Leu Phe Lys Lys Asn
        515                 520                 525
Asn Ser Ile Asp Phe Val Phe Asp Pro Lys Ala Glu Ala Thr Asn Thr
    530                 535                 540
Asn Val Met Asp Arg Trp Ile Leu Ala Ser Cys Gln Ser Leu Leu Lys
545                 550                 555                 560
Phe Val Asn Glu Glu Met Ala Gly Tyr Arg Leu Tyr Thr Val Val Pro
                565                 570                 575
Arg Leu Leu Glu Leu Ile Asp Asn Thr Thr Asn Trp Tyr Ile Arg Phe
            580                 585                 590
Asn Arg Lys Arg Leu Lys Gly Glu Asn Gly Ile Asp Asp Thr Leu His
        595                 600                 605
Ala Leu Asn Thr Leu Phe Glu Val Leu Tyr Thr Leu Val Arg Gly Leu
    610                 615                 620
Ala Pro Phe Thr Pro Phe Ile Thr Asp Thr Ile Tyr Gln Lys Leu Leu
625                 630                 635                 640
Pro His Ile Pro Gln Ala Leu Arg Gly Glu Asp Ser Arg Ser Val His
                645                 650                 655
```

```
Phe Leu Ser Phe Pro Glu Val Arg Glu Glu Leu Phe Asp Glu Val Val
            660                 665                 670
Glu Arg Arg Val Ala Arg Met Gln Lys Val Ile Glu Met Ala Arg Val
        675                 680                 685
Ser Arg Glu Arg Arg Ser Ile Gly Leu Lys Ser Pro Leu Lys Thr Leu
    690                 695                 700
Val Val Ile His Gln Asp Gln Gln Tyr Leu Asp Asp Val Lys Ser Leu
705                 710                 715                 720
Glu Gly Tyr Ile Leu Glu Glu Leu Asn Ile Leu Glu Leu Val Leu Ser
                725                 730                 735
Ser Asp Glu Ala Lys Tyr Asn Val Gln Tyr Ser Val Ser Ala Asp Trp
            740                 745                 750
Pro Thr Leu Gly Lys Lys Leu Lys Lys Asp Ala Gln Lys Val Lys Lys
        755                 760                 765
Ala Ile Ala Ile Pro His Glu
    770                 775

<210> 38750
<211> 110
<212> PRT
<213> A.fumigatus

<400> 38750
Ala Phe Val Ser Ser Cys Phe Arg Leu Leu Leu Ile Ala Cys Ser Val
1               5                   10                  15
Val Ser Tyr Lys Thr Pro Ile Met Asp Pro Ser Gln Val Lys Ile Pro
            20                  25                  30
Pro Met Lys Asp Leu Thr Val Asp Asn Ile Thr Glu Asn Val Ile Arg
        35                  40                  45
Ile Asn Ser Leu Cys Glu Asp Glu Arg Met Lys Tyr Val Leu Glu Arg
    50                  55                  60
Leu Val Thr His Leu His Asp Phe Ala Arg Glu Thr Arg Leu Ser Ser
65                  70                  75                  80
Gln Glu Trp Met Ala Gly Leu Thr Phe Leu Lys Glu Val Gly Gln Ile
                85                  90                  95
Ser Ser Asp Val Arg Gln Val Arg Ile Ser Pro Ala Leu Leu
            100                 105                 110

<210> 38751
<211> 203
<212> PRT
<213> A.fumigatus

<400> 38751
Tyr Glu His Met Gly Asn Gln Pro Gln Gly Trp Lys Thr Lys Glu Phe
1               5                   10                  15
Ile Leu Leu Ser Asp Val Leu Gly Leu Ser Ile Leu Val Asp Ser Ile
            20                  25                  30
Asp His Pro Lys Pro Pro Gly Ser Thr Glu Gly Thr Val Leu Gly Pro
        35                  40                  45
Phe His Thr His Glu Ala Glu Glu Ile Thr Gln Gly Gly Leu Met Ser
    50                  55                  60
His Asp Pro Lys Gly Glu Pro Leu Leu Val Val Cys Thr Ile Lys Asp
65                  70                  75                  80
Thr Asn Gly Lys Pro Ile Glu Gly Val Lys Ile Asp Ile Trp Glu Thr
                85                  90                  95
```

```
Asp Ser Thr Gly His Tyr Asp Val Gln Tyr Pro Gly Arg Asp Gly Pro
            100                 105                 110
Asp Gly Arg Cys Ile Met Arg Ser Asp Lys Asp Gly Val Phe Trp Phe
        115                 120                 125
Asn Ala Ile Thr Pro Val Pro Tyr Pro Ile Pro His Asp Gly Pro Val
    130                 135                 140
Gly Lys Leu Leu Lys Lys Leu His Arg His Pro Tyr Arg Pro Ser His
145                 150                 155                 160
Met His Phe Met Phe Glu Lys Glu Gly Tyr Asp His Leu Ile Thr Tyr
                165                 170                 175
Val Cys Ala Leu Leu Pro Ala Ser Leu Ser Ala Glu Arg Asn Gly Ala
            180                 185                 190
Asn Glu Met Arg Gln Ser Ser Leu Pro Pro Lys
        195                 200
```

<210> 38752
<211> 91
<212> PRT
<213> A.fumigatus

<400> 38752

```
Gly Arg Ala Leu Tyr Leu Arg Asn Asp Pro Tyr Glu Thr Ser Asp Ala
1               5                   10                  15
Val Phe Gly Val Lys Asp Ser Leu Val Val Asp Leu Gly Lys Ala Gly
            20                  25                  30
Pro Glu Tyr Ala Lys Lys Tyr Asn Val Pro Glu Asp Arg Ala Leu Leu
        35                  40                  45
Thr Tyr Asp Phe Val Leu Val Thr Asp Gln Glu Thr Ala Asp Leu Arg
    50                  55                  60
Ala Lys Asn Ser Lys Glu Ala Leu Asp Lys Leu Gly Arg Lys Val Arg
65                  70                  75                  80
Ile Val Asn Gly Leu Pro Val Pro Asp Leu Asp
                85                  90
```

<210> 38753
<211> 234
<212> PRT
<213> A.fumigatus

<400> 38753

```
Phe Thr Gly Pro His Thr Leu His Ser Phe Met Glu Ser Arg Thr Pro
1               5                   10                  15
Ala Ala Ala Glu Pro Ser Asn Lys Arg Pro Arg Ser Pro Ser Gly Asp
            20                  25                  30
Tyr His Pro Ile Ala Ser Lys Val Pro Lys Ser His Ser Asn His Leu
        35                  40                  45
Gln Ile Asn Tyr Leu Ala Arg Gln Tyr Pro Asp Asn Leu Pro Leu Val
    50                  55                  60
Ser Leu Asp Asp Thr Met Pro Ala Ile Leu His Leu Val Gly Glu Tyr
65                  70                  75                  80
Asp Gly Val Leu His Arg His Glu Ser Ile Ala Gly Asn Leu Gly Ala
                85                  90                  95
Cys Pro Leu Gly Pro Ile Leu Ile Lys Arg Phe Glu Arg Leu Phe Asp
            100                 105                 110
Gly Pro Pro Arg Val Leu Lys Ser His Gly Lys Glu Pro Pro Asn Ile
        115                 120                 125
```

```
Thr Trp Leu Asp Val Val Glu Phe Ala Lys Ser Lys Pro Glu Gln Phe
    130                 135                 140
Asn Leu Glu Lys Ser Arg Asn Gly Val Arg Val Cys Gln Phe Tyr Thr
145                 150                 155                 160
Lys Gln Cys Arg Val Glu Ile Ser Glu Glu Asp Tyr Val Leu Ile Ala
                165                 170                 175
Ser Gly Met Pro Gln Lys Met Ile Pro Pro Gln Pro Ile Ile Glu Asp
            180                 185                 190
Glu Glu Lys Glu Leu Gly Ala Leu Glu Ile Leu Glu Lys Asn Leu Gln
        195                 200                 205
Gln Ile Ile Gln Val Ala Asp Gln Gly Arg Ser Met Ser Ser Phe Lys
    210                 215                 220
Cys Gly His Met Phe Ser Phe Ser Gly Ile
225                 230
```

<210> 38754
<211> 307
<212> PRT
<213> A.fumigatus

<400> 38754

```
Tyr Thr Gln Tyr Ala Asp Asp Leu Leu Ser Tyr Tyr Leu Asp Thr Val
1               5                   10                  15
Leu Ser Val Leu Glu Ser Ser Pro Thr Ala Arg Glu Ser Leu Ala Glu
            20                  25                  30
Ser Tyr Ser Thr Tyr Arg Ala Leu Arg Pro Pro Lys Pro Ser Tyr Met
        35                  40                  45
Asn Phe Ile Met Glu Asn Thr Pro Ala Glu Pro Trp Trp Gln Ser Arg
    50                  55                  60
Leu Arg Leu Leu Gln Leu Leu Gly Gly Gly Ser Ser Ser Gln Phe Ser
65                  70                  75                  80
Ser Met Pro Ser Pro Ser Lys Leu Thr Tyr Ser Ile Pro Ala Val Leu
                85                  90                  95
Ala Arg Ile Glu Pro Phe Gln Asn Glu Leu Val Ser Glu Ser Val Ile
            100                 105                 110
Leu Asp Gly Leu Gln Gly Arg His Arg Glu Ala Leu Arg Leu Leu Thr
        115                 120                 125
His Gly Leu Gly Asp Tyr Asp Ser Ala Val Arg Tyr Cys Leu Phe Gly
    130                 135                 140
Gly Pro Arg Ser Thr Ser Ser Ala Gly Thr Val Glu Leu Pro Asp Arg
145                 150                 155                 160
Ser His Gln Ser Glu Leu Phe Arg Tyr Leu Leu Asp Glu Phe Leu Gln
                165                 170                 175
Ile Gln Asp Val Ser Glu Arg Ile Glu Arg Thr Ser Asp Leu Leu Ala
            180                 185                 190
Arg Phe Ala Ala Trp Phe Asp Ile Lys Asp Val Leu Gln Leu Ile Pro
        195                 200                 205
Asp Asp Trp Ser Val Asp Ile Leu Ser Gly Phe Leu Ala His Val Phe
    210                 215                 220
Arg Val Leu Val Ser Gln Thr Arg Glu Ala Arg Ile Glu Arg Ala Leu
225                 230                 235                 240
Ser Ala Ser Leu Asn Leu Arg Ile Gly Ala Glu Tyr Ile Asp Gly Met
                245                 250                 255
Glu Lys Val Gly Gly Trp Val Glu Asp Asp Ser Gly Val Arg Arg Leu
            260                 265                 270
Lys Asp Ala Ala Ala Gly Asp Ala Ser Ser Asn Thr Ala Ala Val Gln
```

```
        275                 280                 285
Val Ala Gly Gly Gly Ser Asp Phe Gly Asp Met Val Glu Ala Ser Gln
    290                 295                 300
Ser Gly Pro
305
```

<210> 38755
<211> 1082
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (533)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38755

```
Asn His Asp Leu Val Trp Pro Pro Asp Arg Thr Ala Tyr Met Val Gly
1               5                  10                  15
Gly Leu Phe Pro Phe Cys Phe Ala Leu Arg Ile Ala Ala Tyr His Ile
            20                  25                  30
Ser Thr Ala Glu Val Phe Gly Lys Asn Gln Thr Gly Asp Thr Val Ala
        35                  40                  45
Ala Glu Trp Leu Thr Gln Tyr Gln Lys Asp Ala Lys Ala Ala Met His
    50                  55                  60
Ala Met Ile Asn Phe Ile Leu Lys Cys Ala Gly Thr Asp Leu Glu Val
65                  70                  75                  80
Ser Asp Ala Asp Ile Asp Asp Pro Asp His Ala Pro Glu Arg Ile Asn
                85                  90                  95
Asp Leu Ser Thr Glu Tyr His Ala Leu Gly Ile Phe Glu Tyr Pro Leu
            100                 105                 110
Ile Ser Lys Ala Arg Thr Phe Lys Ala Phe Gln Pro Ile Leu Glu Asp
        115                 120                 125
Phe Phe Ala Ala Leu Val Gln Thr Leu His His Ser Ser Val Leu Tyr
    130                 135                 140
Lys Gln Gln Glu Leu Tyr Glu Asn Leu Gln Ile Trp Leu Ala Ala Leu
145                 150                 155                 160
Ser Thr Ser Gly Cys Arg Pro Phe Arg His Thr Ser Thr Val Ile Ser
                165                 170                 175
Leu Thr Ile Met Asn Ala Leu Cys Asp Val Ala Arg Glu Val Met Thr
            180                 185                 190
Thr Val Ser Ala Ser Arg Lys Gln Leu Glu Ala Glu Lys Lys Lys Lys
        195                 200                 205
Thr Val Asn Gln Gly Arg Val Asn Ala Ile Thr Ser Thr Val Glu Glu
    210                 215                 220
Gly Glu Ser Lys Leu Glu Ala Ile Asp Glu Tyr Leu Lys Asp Gly Val
225                 230                 235                 240
Asn Ile Val Phe Val His Arg Tyr Arg Asp Ile Asp Pro Lys Ile Arg
                245                 250                 255
Ser Glu Cys Ile Ala Ala Leu Gly Arg Trp Met His Thr Tyr Arg Glu
            260                 265                 270
Tyr Phe Phe Glu Gly Gln Phe Leu Arg Tyr Phe Gly Trp Ile Leu Ser
        275                 280                 285
Asp Pro Ser Ala Glu Thr Arg Ser Ile Val Val Thr Gln Leu Gln Arg
    290                 295                 300
Leu Tyr Ser Asn Lys Asp Asn Ile Ala Gly Leu Arg Ser Phe Thr Glu
```

```
305                 310                 315                 320
Arg Phe Arg Gln Arg Met Val Glu Met Ala Ala His Asp Ala Asp Val
                325                 330                 335
Gly Val Arg Ala Ser Ser Ile Glu Leu Leu Asp Leu Ile Arg Glu Ala
            340                 345                 350
Gly Leu Leu Glu Pro Ala Asp Ile Asp Thr Val Gly Arg Leu Val Phe
        355                 360                 365
Asp Val Glu Pro Arg Val Arg Arg Ala Ala Gly Pro Phe Phe Val Ala
    370                 375                 380
Asn Val Glu Asp Val Phe Glu Ser Thr Thr Glu Glu Val Gly Asp Glu
385                 390                 395                 400
Met Asn Glu Met Phe Gly Asp Glu Asp Glu Asp Asp Tyr Glu Ser Pro
                405                 410                 415
Lys Arg Ser Trp Ile Lys Phe Lys Cys Leu Val Asp Ile Leu Gln Ala
            420                 425                 430
Tyr Asp Glu Gln Glu Asn Glu Leu Ala Pro Glu Arg Lys Ser Ser Thr
        435                 440                 445
Ala Arg Asp Ala Leu Phe Gly Ala Ser Leu Asp Ser Arg Phe Val Leu
    450                 455                 460
Ala Thr Glu Ala Ile Tyr Pro His Phe Ala Glu Leu Ser Gln Trp Gln
465                 470                 475                 480
Ser Leu Ala Gly Phe Leu Leu Tyr Asp His Ser Gln Ile Pro Asp Asp
                485                 490                 495
Pro Thr Gly Asp Ser Ala Thr Gly Met Val Lys Lys Leu Tyr Lys Met
            500                 505                 510
Gln Glu Gly Gln Glu Val Ile Leu Leu Glu Val Leu Cys Cys Ala Val
        515                 520                 525
Lys Leu Arg Ile Xaa Asp Val Ala Lys Ser Asp Ile Asp Lys Arg Gly
    530                 535                 540
Arg Lys Val Lys Ala Leu Thr Asp Lys Ile Pro Glu Leu Gln Glu Glu
545                 550                 555                 560
Ile Ala His Ser Leu Ala Gln Ile Ile Pro Gln Leu Leu Asn Lys Tyr
                565                 570                 575
Gly Ser Val Pro Glu Ala Ala Ser Ala Val Leu Arg Leu Glu His Leu
            580                 585                 590
Val Asp Leu Asp Lys Ile Gln Asp Leu Gln Lys Asp Ala Thr Ala Tyr
        595                 600                 605
Thr Ser Leu Leu Asn Asp Ile Asn Lys Gln Phe Leu Thr His Ser Asp
    610                 615                 620
Gln Asp Val Leu Ala Glu Ala Gly Val Ala Phe Leu His Ala Lys Ser
625                 630                 635                 640
Ser Asp Asp Met Arg Glu Ala Leu Glu Ser Lys Val Gln Glu Leu Trp
                645                 650                 655
Asp Asp Ile Ile Asp Ala Leu Glu Ala Leu Ser Gln Lys Lys Gly Val
            660                 665                 670
Val Glu Gly Ser Ser Ile Pro Met Pro Thr Leu Asn Asp Leu Ala Asn
        675                 680                 685
Thr Ala Met Arg Ile Leu Asn Leu Ala Ser Val Thr Asp Cys Thr His
    690                 695                 700
Val Leu Glu Lys Lys Pro Ala Ser Lys Ser Lys Gly Arg Lys Lys Glu
705                 710                 715                 720
Asn Pro Glu Ala Pro Phe Asn Val Leu Ile His Leu Val Lys Arg Gly
                725                 730                 735
Leu Arg Glu Glu Glu Glu Asp Asp Glu Ser Ala Lys Ala Glu Thr Glu
            740                 745                 750
Leu Val Thr Ser Ser Ile Arg Thr Leu Leu Phe Tyr Phe Met Trp Lys
```

```
        755                 760                 765
Val Gln Ala Leu Thr Thr Ala Leu Ser Ala Gly Lys Ala Ala Phe Thr
    770                 775                 780
Thr Ala Tyr Phe Glu Thr Leu Thr Lys Ser Arg Glu Val Phe Val Ala
785                 790                 795                 800
Ser Leu Val Ala Val Met Arg Gln Arg Ser Gly Leu Asp Asp Ile Arg
                805                 810                 815
Phe Thr Ala Thr Thr Thr Leu Leu Asp Leu Gln Thr Leu Phe Gly Thr
            820                 825                 830
Leu Arg His Ala Gly Leu Asn Thr Gly Asn Asp Glu Glu Val Ile Met
        835                 840                 845
Gln Thr Gln Ser Leu Val His Glu Ile Asp Ser Asn Thr Gln Ala Leu
    850                 855                 860
Ile Ala Lys Ile His Gly Ile Ala Glu Arg Thr Tyr Ala Arg Lys Leu
865                 870                 875                 880
Arg Gln Pro Leu Glu Pro Ala Glu Asp Asp Glu Pro Ala Ser Glu Ser
                885                 890                 895
Asp Val Glu Arg Glu Pro Ser Asp Glu Glu Asp Glu Thr Gly Ala Glu
            900                 905                 910
Gly Glu Ser Ile Ala Asn Glu Arg Leu Arg Ala Thr Ile Leu Ala Glu
        915                 920                 925
Gln Arg Leu Cys Glu Leu Thr Gly Lys Ile Val Leu Ala Ile Ile Gly
    930                 935                 940
Arg Ile Ile Asp Ala Ser Gly Ser Glu Arg Gly Gln Leu Lys Gln Arg
945                 950                 955                 960
Leu Val Arg His Lys Ser Arg Leu Gly Gln Asn Tyr Arg Glu Val Leu
                965                 970                 975
Ser Phe Leu Asp Glu Arg Lys Pro Lys Val Ile Gly Pro Arg Pro Ser
            980                 985                 990
Arg Ser Lys Gly Lys Pro Pro Pro Leu Gly Gly Ala Gln Gln Asp Arg
        995                 1000                1005
Ala Ser Ala Thr Lys Leu Pro Lys Val Ser Lys Ser Ala Glu Arg Met
    1010                1015                1020
Asp Asp Asp Asp Glu Glu Glu Asp His Glu Pro Asp Val Asp Ala Glu
1025                1030                1035                1040
Gln Asp Asp Glu Asp Asp Leu Arg Ala Arg Gly Leu Val Glu Glu Asp
                1045                1050                1055
Asn Val Asp Glu Asp His Glu Glu Glu Asp Asp Asn Pro Thr Ala Pro
            1060                1065                1070
Asp Pro Asp Glu Asp Glu Val Met Gly Asp
        1075                1080
```

<210> 38756
<211> 248
<212> PRT
<213> A.fumigatus

<400> 38756

```
Phe Ile Leu Gln Arg Ala Ile Leu Ser Pro Ile Arg Met Glu Asn Glu
1               5                   10                  15
Ser Pro Leu Ser Ser Pro Glu Pro Gly Leu Thr Asp Leu Asp Ser Pro
            20                  25                  30
Gln Ala Ser Ile Arg Arg Lys Ser Gly Arg Val Ser Arg Lys Pro Glu
        35                  40                  45
Phe Leu Ser Gln Ser Tyr Ser Asp Ser Asn Pro Gly Ala Ala Lys Arg
    50                  55                  60
```

```
Lys Arg Asp Ile Thr Arg Asp Glu Asp Glu Glu Asp Asp Ala Asp Glu
65                  70                  75                  80
Asp Asp Ala Ser Glu Ser Glu Glu Ile Ser Asp Gly Glu Pro Asp Glu
                85                  90                  95
Glu Glu Leu Arg Glu Lys Arg Arg Ala Ala Arg Lys Ala Ser Ala Lys
            100                 105                 110
Lys Ala Thr Ser Gly Val Lys Ser Lys Thr Thr Lys Ser Gln Ala Thr
        115                 120                 125
His Gly Ala Lys Arg Pro Arg Val Ala Gly Asn Gly Ile Pro Asn Gln
    130                 135                 140
Leu Ala Ile Arg Pro Ala Val Asn Gly Lys Lys Thr Val Ser Arg Pro
145                 150                 155                 160
Arg Lys Val Lys Pro Arg Pro Ser Leu Ala Ala Gly Gln Asn Gly Leu
                165                 170                 175
Tyr Gly Arg Trp Leu Ile Ser Phe Leu Phe Arg Leu Ala His Arg Gly
            180                 185                 190
Leu Pro Tyr Leu Asn Ser Gly Gly Leu Trp Glu Lys Pro Asp Trp Arg
        195                 200                 205
His Cys Cys Cys Arg Met Ala Tyr Pro Val Ser Glu Gly Cys Gln Gly
    210                 215                 220
Cys Asp Ala Cys His Asp Gln Leu Tyr Thr Gln Val Cys Arg Asp Arg
225                 230                 235                 240
Phe Gly Ser Glu Arg Cys Gly Tyr
                245
```

<210> 38757
<211> 62
<212> PRT
<213> A.fumigatus

<400> 38757

```
Ser Phe Leu Tyr His Ser Leu Thr Ser Leu Arg Ser His Ser Gly Ala
1               5                   10                  15
Tyr Leu Ser Thr Ser Leu Leu Glu Ile Ser Ser Ile Ala Pro Ser Asp
            20                  25                  30
Ile Pro Ile Leu Leu Leu Ser Ser Phe Phe Thr Ser Leu Val Ile Ile
        35                  40                  45
Asn Ser Ile Val Ser Gln Ala Ser Asn Leu Asn Arg Ala His
    50                  55                  60
```

<210> 38758
<211> 153
<212> PRT
<213> A.fumigatus

<400> 38758

```
Tyr Asn Asp Ile Arg Gln Glu Asp Gly Phe Lys Asn Ile Ile Phe Ala
1               5                   10                  15
Asn Arg Met Ile Ala Glu Ser Gln Arg Ala Arg Gly Ile His Met Ile
            20                  25                  30
His Glu Ser Glu Arg Lys Val Phe Gln Glu His Arg Phe Thr Ala Tyr
        35                  40                  45
Tyr Ile Trp Val Val Leu His Glu Ile Leu Gly His Gly Thr Ser Lys
    50                  55                  60
Leu Leu Gln Glu Asp Ser Gln Gly His Phe Asn Phe Asp Arg Glu His
65                  70                  75                  80
```

```
Pro Pro Leu Asn Pro Leu Thr Gly Lys Pro Ile Asp Ser Trp Tyr Gly
                85                  90                  95
Pro Gly Glu Thr Trp Thr Gly Val Phe Thr Asp Leu Ser Thr Thr Val
            100                 105                 110
Asp Glu Cys Arg Ala Glu Leu Ala Gly Ala Tyr Leu Ile Asp Val Ala
        115                 120                 125
Glu Ile Leu Gln Leu Phe Gly Cys Thr Val Asp Ser Lys Ile Lys Pro
    130                 135                 140
Ala Asp Gly Lys Ser Pro Met Gly Ala
145                 150
```

<210> 38759
<211> 361
<212> PRT
<213> A.fumigatus

<400> 38759

```
Tyr Asn Pro Trp Trp Cys Ile Gln Gly Thr Met Ser Ala Ser Ser Asp
1               5                   10                  15
Val Met Pro Thr Asp Gly Gly His Ser Gln Gln Thr Ala Pro Pro Gln
            20                  25                  30
Gln Leu Asn Arg Ser Cys Glu Ser Cys Arg Gly Leu Lys Val Arg Cys
        35                  40                  45
Ile Pro Asp Pro Thr Thr Ala Asn Gln Cys Gln Arg Cys Thr Lys Thr
    50                  55                  60
Gly Arg Val Cys Ile Phe Val Ala Pro Gln Arg Arg Arg Pro Arg Lys
65                  70                  75                  80
Arg Thr Asp Ser Arg Val Ala Gln Leu Glu Arg Glu Met Arg Gln Met
                85                  90                  95
Arg Ser Leu Leu Lys Asp Arg Leu His Ala Asp Asp Ser Ser Gly Glu
            100                 105                 110
Ser Val Asp Ser Asp His Asp Glu Ser Pro Glu His Asp Ser Gly Val
        115                 120                 125
Glu Ser Lys Asp His Leu Ser Ser Ile Pro Glu Ala Pro Ser Ser Val
    130                 135                 140
Ser Thr Ser Thr Arg His Thr Asp Gln Ser Tyr Gly Gly Val Pro Leu
145                 150                 155                 160
Ser Ser Tyr Pro Thr Val Val Glu Ser Ser Ser Val Ser Ile Pro Ser
                165                 170                 175
Phe Thr Pro Gly Phe Ser Asp Asn Ser Pro Glu Met Pro Ile Gly Asp
            180                 185                 190
Asp Val Ile Asp Arg Gly Val Ile Pro Leu Glu Tyr Ala Asn Glu Leu
        195                 200                 205
Val Ala Phe Phe Ile Arg Asp Leu Met Ala Phe Ala Pro Val Val Val
    210                 215                 220
Leu Pro Pro Glu Thr Thr Ala Ser His Leu Arg His Ser Lys Pro Val
225                 230                 235                 240
Leu Phe Leu Ser Ile Ile Ala Ala Ala Ala Ile Ala Val Asp Ala Thr
                245                 250                 255
Val Ala Ala Val Leu Asn Arg Glu Leu Val Arg Leu Tyr Ala Glu Arg
            260                 265                 270
Phe Phe Ile Gln Gly Glu Lys Ser Leu Glu Leu Val Gln Ala Leu Val
        275                 280                 285
Leu Met Thr Val Phe Tyr Tyr Pro Pro Asp Ser Pro Met Lys Leu Gln
    290                 295                 300
His Phe Gln Tyr Thr His Ile Ala Ala Thr Met Ala Leu Glu Ile Gly
```

```
305                 310                 315                 320
Leu Ala Ser Lys Arg Arg Val Ser Pro Lys Ala Gly Gly Lys Lys Asp
                325                 330                 335
Lys Arg Asn Ala Tyr Asp Glu Gln Met Ala Glu Gln Ala Arg Ala Ile
            340                 345                 350
Leu Glu Cys Tyr His Leu Ala Ser Thr
        355                 360
```

<210> 38760
<211> 64
<212> PRT
<213> A.fumigatus

<400> 38760

```
Ala Val Ser Ser Pro Glu Ala Leu Leu Asp Lys Ala Arg Arg Gln Asn
1               5                   10                  15
Asp Ser Ile Asn Glu Ala Leu Asn Asp Pro Glu Gln Asn Thr Thr Gly
            20                  25                  30
Ala Gln Phe Asp Lys Ser Lys Tyr Pro Ser Glu Ala Val Phe Asp Lys
        35                  40                  45
Gly Ser Thr Thr Lys Val Ala Val Asp Val Pro Pro Thr Gly Arg Met
    50                  55                  60
```

<210> 38761
<211> 82
<212> PRT
<213> A.fumigatus

<400> 38761

```
Asn Ser Ile Val Ser Leu Arg Leu Gly Ile Gly Val Val Val Val Val
1               5                   10                  15
Pro Tyr Ile Ile Val Leu Ile Ile Cys Ser Tyr Leu Val Ile Ile Tyr
            20                  25                  30
Tyr Asn Ile Ser Asn Phe Thr Leu Ser Ser Leu Ile Cys Tyr Phe Asn
        35                  40                  45
Ile Ile Thr Phe Leu Thr Phe Thr Tyr Ile Ala Tyr Leu Tyr Phe Tyr
    50                  55                  60
Leu Thr Phe Ile Thr Ser Ser Leu Tyr Lys Glu Leu Leu Leu Tyr Ile
65                  70                  75                  80
Ile Phe
```

<210> 38762
<211> 71
<212> PRT
<213> A.fumigatus

<400> 38762

```
Tyr Cys Asn Pro Arg Ser Ser Gly Lys Thr Thr Ser Ile Ala Leu Cys
1               5                   10                  15
Ser Ser Ala Pro Asp Leu Ala Phe Phe Gln Asp Phe Asn Phe Leu Arg
            20                  25                  30
Trp His Val Phe Leu Ile Tyr Val Gly Phe Asn Leu Ile Ala Phe Leu
        35                  40                  45
Val Asn Ala Phe Trp Asn Ser Ile Leu Ser Ala Leu Asn Arg Ala Thr
    50                  55                  60
```

Cys Lys Ala Phe Leu Ser Lys
65 70

<210> 38763
<211> 146
<212> PRT
<213> A.fumigatus

<400> 38763
Ser Thr Leu Leu Leu Gly Thr Asp Lys Ser Pro Glu Ser Ala Tyr Gln
1 5 10 15
Gln Leu Leu Arg Val Lys Ser Cys Thr Asn Cys Ser Cys Arg Asp Ser
20 25 30
Gly Leu Pro Phe Ser Pro Ile Trp Thr Thr Val His Ala Arg Leu Lys
35 40 45
Thr Pro Val Asn Ala Leu Val Leu Asn Ala Ala Ala Val Phe Cys Cys
50 55 60
Gly Cys Ile Phe Leu Gly Ser Ser Arg Tyr Ser Leu Leu Leu Leu Glu
65 70 75 80
Pro Cys Leu Ser Asn Leu Asn Phe Val Glu Arg Pro Thr Tyr Cys Ile
85 90 95
Phe Leu Leu Val His Ser Thr His Ser Ala Leu Arg Pro Ser Tyr Ala
100 105 110
Leu Ile Tyr Arg Ile Ala Phe Arg Phe Ser Ser Ile Ala Tyr Val Ala
115 120 125
Ala Asn Cys Ser Leu His Ala His Gly Ser Ser Ile Pro Pro Leu Asp
130 135 140
Gly Leu
145

<210> 38764
<211> 307
<212> PRT
<213> A.fumigatus

<400> 38764
Cys Pro Arg Asp His Trp Ser Val Ser Ser Asn Thr Pro Arg Thr Asn
1 5 10 15
Glu Ser Leu Val Ala Asn Tyr Leu Ile Phe Ser Gly Arg Val Ala Ala
20 25 30
Gly Ala Ile Ala Glu Lys Tyr Leu Arg Leu Ser His Gly Val Glu Ile
35 40 45
Val Ala Phe Val Ser Ser Val Gly Asn Glu His Leu Phe Pro Pro Thr
50 55 60
Pro Glu His Pro Ser Pro Ser Thr Asn Pro Glu Phe Leu Lys Leu Ile
65 70 75 80
Glu Thr Ile Asp Arg Lys Thr Val Asp Ala Phe Val Pro Thr Arg Cys
85 90 95
Pro Asn Glu Glu Ala Ala Ala Arg Met Thr Lys Val Ile Glu Thr Phe
100 105 110
Arg Asp Asn Gln Asp Ser Ile Gly Gly Thr Val Thr Cys Val Ile Arg
115 120 125
Asn Val Pro Val Gly Leu Gly Glu Pro Cys Phe Asp Lys Leu Glu Ala
130 135 140
Lys Leu Ala His Ala Met Leu Ser Ile Pro Ala Thr Lys Gly Phe Glu
145 150 155 160

```
Ile Gly Ser Gly Phe Gly Gly Cys Glu Val Pro Gly Ser Ile His Asn
                165                 170                 175
Asp Pro Phe Thr Val Ser Glu Val Gln Thr Arg Thr Gly Ser Thr Gln
            180                 185                 190
Arg Leu Thr Thr Lys Thr Asn Asn Ser Gly Gly Ile Gln Gly Gly Ile
        195                 200                 205
Ser Asn Gly Ala Pro Ile Tyr Phe Arg Val Ala Phe Lys Pro Pro Ala
    210                 215                 220
Thr Ile Gly Gln Ala Gln Thr Thr Ala Ser Tyr Ser Phe Glu Glu Gly
225                 230                 235                 240
Ile Leu Glu Ala Lys Gly Arg His Asp Pro Cys Val Thr Pro Arg Ala
                245                 250                 255
Val Pro Ile Val Glu Ala Met Ser Ala Leu Val Val Met Asp Ala Leu
            260                 265                 270
Met Ala Gln Tyr Ala Arg Glu Ser Ala Lys Asn Leu Leu Pro Pro Leu
        275                 280                 285
Pro Ser Thr Leu Pro Thr Lys Pro Thr Leu Gly Ser Ser Gly Ala Pro
    290                 295                 300
Ala Ser Ser
305
```

<210> 38765
<211> 197
<212> PRT
<213> A.fumigatus

<400> 38765

```
Pro Val Phe Ala Cys Ser Tyr Gly Glu Ser His Cys Arg Ser Val Gly
1               5                   10                  15
Cys Ile Val Asp Gly Cys Pro Pro Gly Met Glu Leu Thr Glu Glu Asp
            20                  25                  30
Ile Gln Pro Gln Met Thr Arg Arg Arg Pro Gly Gln Ser Ala Leu Thr
        35                  40                  45
Thr Pro Arg Asn Glu Lys Asp Arg Val Glu Ile Gln Ser Gly Thr Glu
    50                  55                  60
Phe Gly Ile Thr Leu Gly Thr Pro Ile Gly Met Met Val Arg Asn Glu
65                  70                  75                  80
Asp Gln Arg Pro Lys Asp Tyr Gly Gly Ser Thr Met Asp Leu Tyr Pro
                85                  90                  95
Arg Pro Ser His Ala Asp Tyr Thr Tyr Leu Glu Lys Tyr Gly Val Lys
            100                 105                 110
Ala Ser Ser Gly Gly Gly Arg Ser Ser Ala Arg Glu Thr Ile Gly Gln
        115                 120                 125
Phe Arg Ala Thr Pro Pro Glu Gln Met Asn Arg Leu Leu Leu Thr Thr
    130                 135                 140
Ser Ser Phe Gln Ala Val Ser Pro Gln Glu Pro Leu Arg Arg Ser Thr
145                 150                 155                 160
Tyr Ala Cys Arg Met Val Ser Lys Leu Ser Pro Leu Cys Pro Pro Leu
                165                 170                 175
Val Thr Asn Thr Phe Ser Arg Arg Pro Pro Ser Thr Leu Leu His Arg
            180                 185                 190
Pro Thr Leu Ser Ser
        195
```

<210> 38766
<211> 243

<212> PRT
<213> A.fumigatus

<400> 38766
Ile Leu Cys Thr Phe Ala Gly Ile Leu Gly His Glu Arg Ile His Asp
1 5 10 15
Asp Glu Gly Gly His Gly Leu Asp Asp Gly Asp Ser Thr Arg Gly Asn
20 25 30
Ala Gly Val Val Ala Ala Leu Gly Leu Glu Asp Ala Leu Leu Glu Ala
35 40 45
Val Arg Gly Gly Gly Leu Ser Leu Ala Asp Gly Gly Gly Gly Leu Glu
50 55 60
Gly Asn Ala Glu Ile Asp Gly Ser Ala Val Gly Asp Pro Ala Leu Asp
65 70 75 80
Ala Ala Gly Val Val Gly Leu Gly Gly Gln Ala Leu Cys Ala Ala Gly
85 90 95
Ala Gly Leu Asp Leu Gly Asp Gly Glu Gly Val Val Val Asp Gly Ala
100 105 110
Gly Asp Leu Ala Ala Thr Glu Ala Arg Ala Asp Leu Lys Ala Leu Gly
115 120 125
Gly Gly Asp Ala Glu His Gly Val Arg Gln Leu Gly Leu Glu Leu Val
130 135 140
Glu Ala Arg Leu Ala Gln Ala Asp Gly Asp Val Ala Asp His Ala Gly
145 150 155 160
Asp Gly Ala Ala Asp Ala Ile Leu Val Val Pro Glu Ser Leu Asp His
165 170 175
Phe Cys His Ala Cys Arg Arg Leu Leu Val Arg Ala Ala Ser Gly Asp
180 185 190
Glu Gly Ile Asp Ser Leu Thr Val Asp Gly Leu Asp Glu Leu Gln Glu
195 200 205
Leu Arg Val Gly Arg Trp Arg Arg Val Leu Gly Gly Arg Arg Glu Lys
210 215 220
Val Phe Val Thr Asn Gly Gly His Lys Gly Asp Asn Phe Asp Thr Met
225 230 235 240
Arg Gln Ala

<210> 38767
<211> 191
<212> PRT
<213> A.fumigatus

<400> 38767
Met Gly Ala Pro Leu Glu Ile Pro Pro Trp Met Pro Pro Glu Leu Leu
1 5 10 15
Val Leu Val Val Arg Arg Cys Val Leu Pro Val Arg Val Trp Thr Ser
20 25 30
Glu Thr Val Lys Gly Ser Leu Trp Met Glu Pro Gly Thr Ser Gln Pro
35 40 45
Pro Lys Pro Glu Pro Ile Ser Lys Pro Leu Val Ala Gly Met Leu Ser
50 55 60
Met Ala Cys Ala Ser Leu Ala Ser Ser Leu Ser Lys Gln Gly Ser Pro
65 70 75 80
Arg Pro Thr Gly Thr Leu Arg Ile Thr Gln Val Thr Val Pro Pro Met
85 90 95
Leu Ser Trp Leu Ser Arg Lys Val Ser Ile Thr Phe Val Met Arg Ala

```
            100                 105                 110
Ala Ala Ser Ser Phe Gly Gln Arg Val Gly Thr Lys Ala Ser Thr Val
        115                 120                 125
Leu Arg Ser Met Val Ser Met Ser Phe Arg Asn Ser Gly Leu Val Asp
    130                 135                 140
Gly Glu Gly Cys Ser Gly Val Gly Gly Lys Arg Cys Ser Leu Pro Thr
145                 150                 155                 160
Glu Asp Thr Lys Ala Thr Ile Ser Thr Pro Cys Asp Arg Arg Arg Tyr
                165                 170                 175
Phe Ser Ala Met Ala Pro Ala Ala Thr Arg Pro Glu Lys Met Arg
            180                 185                 190
```

<210> 38768
<211> 438
<212> PRT
<213> A.fumigatus

<400> 38768

```
Gly Arg Lys Arg Asp Glu Val Gly Leu Phe Asn Asn Ser His Arg Cys
1               5                   10                  15
Cys Leu Ser Gly Phe Ser Ala Pro Ala Ile Gly Asp Ile Phe His Gln
            20                  25                  30
Gln Asp Leu Thr Leu Gln Tyr Pro Ala Ser Ile Phe His Leu Arg Leu
        35                  40                  45
Gly Asp Arg Gln Phe Thr Ile Arg Tyr Ile Val Ser Pro Ser Asp Leu
    50                  55                  60
Arg His Gly Val Arg Ile Ser Asn Ser Phe Asn His Ala His Pro Val
65                  70                  75                  80
Pro Glu Pro Arg Arg Ser Ser Met Arg Arg Leu Leu Arg Gly Gln Cys
                85                  90                  95
Leu Leu Thr Ser Ala Leu Ala Pro Arg Arg Ser Gly Ser Ser Pro Tyr
            100                 105                 110
Glu Gly Ala Val Arg Tyr Asn Ser Ala Leu Ser Thr Asp His Phe Ala
        115                 120                 125
His Leu Ala Ser Arg Gln Ser Ser Arg His Gln Ile Tyr Gln Ser Leu
    130                 135                 140
Ser Ser Asp Pro Tyr Val Asn Leu Ser Ile Glu His Phe Leu Leu Glu
145                 150                 155                 160
His Ala Pro Val Asp Ser Ser Ile Leu Phe Leu Tyr Val Asn Arg Pro
                165                 170                 175
Cys Val Val Ile Gly Arg Asn Gln Asn Pro Trp Leu Glu Thr Asn Leu
            180                 185                 190
Glu Ala Leu Tyr Asn Asp Arg Val Glu Thr Gln Lys Gly Asp Asp Glu
        195                 200                 205
Ser Glu Asp Val Leu Leu Val Arg Arg Arg Ser Gly Gly Gly Ala Val
    210                 215                 220
Phe His Asp Phe Gly Asn Leu Asn Tyr Ser Val Ile Ser Pro Arg Thr
225                 230                 235                 240
Thr Phe Thr Arg Asn Lys His Ala Glu Met Val Val Gln Ala Leu His
                245                 250                 255
Asn Ile Gly Ala Thr Asn Thr Ser Val Asn Asp Arg His Asp Ile Val
            260                 265                 270
Met Thr Ser Gly Thr Ser Glu His Gly Gly Ser Gly Ala Ser Met Pro
        275                 280                 285
Arg Lys Ile Tyr Gly Ser Ala Phe Lys Leu Thr Arg His Arg Ala Leu
    290                 295                 300
```

```
His His Gly Thr Cys Leu Leu Asp Ser Pro Asn Ile Asn Asp Leu Gly
305                 310                 315                 320
Phe Phe Leu Arg Ser Pro Ala Arg Asp Tyr Ile Lys Ala Lys Gly Val
                325                 330                 335
Asp Ser Val Arg Ser Pro Val Thr Asn Val Ser Thr Ala Phe Glu Asp
            340                 345                 350
Ala Phe Ala Pro Phe Ser Ile Gln Ala Val Met Glu Gly Ile Met Glu
        355                 360                 365
Gln Phe Ala Gln Leu Tyr Gln Val Ser Pro Asp Ala Val Arg Arg Ala
    370                 375                 380
Gln Arg Ala His Ala Asn Glu Pro Glu Leu Tyr Ala Gly Ser Asp Trp
385                 390                 395                 400
Val Ala Gly Val Val Gly Ala Gln Glu Gly Tyr Gly Glu Leu Glu Ile
                405                 410                 415
Arg Lys Gly Ile Asp Glu Leu Arg Val Arg Arg Met His Ile Val Tyr
            420                 425                 430
Glu Thr Leu Thr His Val
        435
```

<210> 38769
<211> 150
<212> PRT
<213> A.fumigatus

<400> 38769

```
Trp Met Leu Leu Ala Pro Gly Trp Thr Asn Leu Trp Arg Met Tyr His
1               5                   10                  15
Val Arg Lys Gly Lys Val His Ile Leu Thr Thr Glu Leu His Lys Lys
            20                  25                  30
Tyr Gly Pro Val Val Arg Ile Ala Pro Asn Val Val Asp Leu Asp Met
        35                  40                  45
Pro Glu Met Ile Arg Thr Ile Tyr Ser Thr Arg Gly Asp Tyr Arg Lys
    50                  55                  60
Thr Glu Phe Tyr His Gly Ser Ser Ala Lys Asn Asn Gly Lys Ile Ile
65                  70                  75                  80
Tyr Asn Leu Phe Ser Glu Cys Asp Pro Gln Val His Ala Leu Gln Lys
                85                  90                  95
Arg Pro Ile Ala Lys Tyr Tyr Ser Met Ser Gly Val Leu Pro Leu Glu
            100                 105                 110
Pro His Ile Asp Glu Thr Ile Gly Phe Leu Cys Arg Arg Leu Glu Glu
        115                 120                 125
Glu Phe Ile Asp Gly Pro Lys Ala Gly Arg Pro Cys Asp Leu Gly Gln
    130                 135                 140
Trp Leu Leu Tyr Cys Lys
145                 150
```

<210> 38770
<211> 767
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (53),(59),(61),(69),(677)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38770

```
Val Gln Leu Arg Lys Ser Pro Pro Pro Leu Gly Arg Lys Ile Pro Lys
1               5                  10                  15
Val Asn Lys Ser Ser Glu Asp Tyr Pro Lys Ser Glu Gly Val Ser Thr
            20                  25                  30
Trp His Val Pro Pro Val Leu Ala Glu Ser Lys Asn Arg Val Ala His
        35                  40                  45
Lys Ile Ser Val Xaa Gln Glu Leu Ser Gln Xaa Gly Xaa Thr Glu Pro
    50                  55                  60
Ala Lys Asp Ile Xaa Arg Lys Leu Arg Pro Gln Val Met Val Tyr Lys
65                  70                  75                  80
Met Ser Arg Pro Val Ala Thr Ser Thr Leu Trp Pro Asp Ile Arg Ser
                85                  90                  95
Gly Pro Phe Cys Asn Asp Asn Gly Ser Thr Asp Pro Asp Arg Leu Ile
            100                 105                 110
Val Ile Val Asp Ala Glu Asp Leu Arg Arg Glu Gly Ile Glu Leu Ser
        115                 120                 125
Arg His Leu Ser Trp Glu Lys Thr Cys Glu Asp Phe Val Arg Glu Leu
    130                 135                 140
Ala Cys Asn Gly Gln Val Val Ser Leu Leu Glu Cys Ala His Leu Ile
145                 150                 155                 160
Val Cys Phe Asp Ser Asp Gly Val Ile His His Asp Arg Ile Lys Gly
                165                 170                 175
Lys Asp Thr Leu Tyr Phe Ser Gly Ser Tyr Ala Glu Gly Asp Tyr Ile
            180                 185                 190
Lys Ser Cys Ala Glu Asn Ser Gly Asp Met Pro Gly Leu Ile Thr Thr
        195                 200                 205
Phe Thr Ala Gly Phe Val Ser Lys Ile Ala Glu Phe Asp Leu Ser Glu
    210                 215                 220
Thr Asp Ala Met Asp Asn Cys Leu Gln Glu Gly Ile Leu Asn Gly Leu
225                 230                 235                 240
Arg Cys Ala Arg Arg Leu Cys Trp His Gly Phe Arg Ser Asn Leu Asp
                245                 250                 255
Gly Gln Pro Asp Met Ser Trp Glu Tyr Ile Met Thr Gly Leu Glu Gln
            260                 265                 270
Tyr Ser Asn Ile Phe Thr Asn Ala Ser Val Asp Asn Pro Glu Asn Asp
        275                 280                 285
Leu Arg Phe Glu Ala Ile Thr Ile Pro Thr Asp Arg Ile Ile Gln Gly
    290                 295                 300
Leu His Trp Thr Thr Leu Glu Ser Ile Ala Gly Asp Pro Ala Glu Val
305                 310                 315                 320
Ala Tyr Arg Ile Val Lys Asp Gly Pro Asp Ile Leu Ser Arg Val Pro
                325                 330                 335
Ile Ala Arg Phe Gly Lys Ile Val Thr Ala Asp Arg Gly Glu Ile Glu
            340                 345                 350
Ser Tyr Arg Ala Ile Thr Asn Leu Ile Glu Glu Tyr Ala Thr Ala Asn
        355                 360                 365
Pro Arg Arg Met Thr Pro Leu Cys Ile Gly Gly Phe Gly Pro Pro Gly
    370                 375                 380
Ser Gly Lys Ser Phe Ala Leu Lys Arg Val Ala Glu Thr Ala Leu Pro
385                 390                 395                 400
Asp Asp Asp Leu Pro Thr Leu Glu Phe Asn Leu Ser Gln Phe Arg Asp
                405                 410                 415
Tyr Ser Glu Leu Val Val Ala Phe Gln Leu Ile Arg Asp Thr Ala Leu
            420                 425                 430
Ser Glu Arg Leu Pro Ile Val Leu Phe Asp Glu Phe Asp Ala Asn Phe
```

```
        435                 440                 445
Gly Gly Lys Leu Gly Trp Leu Lys Tyr Phe Leu Thr Pro Met Asn Asp
    450                 455                 460
Gly Lys Phe Leu Asp His Gly Thr Thr His Pro Ile Gly Arg Ala Ile
465                 470                 475                 480
Phe Phe Phe Ile Gly Gly Thr Ser Ser Thr Leu Glu Asp Phe Lys Ser
                485                 490                 495
Asp Thr Asn Ser Lys Glu Gly Val Thr Ala Lys Gly Pro Asp Phe Ile
            500                 505                 510
Ser Arg Leu Ser Gly Tyr Val Asn Val Arg Gly Val Asp Pro Ile Pro
        515                 520                 525
Asp Glu Lys Arg Asp Gln Lys Tyr Ala Ile Arg Arg Ala Leu Ile Leu
    530                 535                 540
Arg Glu Leu Leu Arg Thr Tyr His Leu Glu Gly Ala Ile Asp Asp Ala
545                 550                 555                 560
Val Leu Asn Gly Ile Leu Arg Val Ser Arg Phe Lys His Gly Ala Arg
                565                 570                 575
Ser Leu Arg Ala Ile Leu Gln Met Ser Arg Ile Ser Gly Arg Glu Lys
            580                 585                 590
Phe Glu Arg Ala Ala Leu Pro Ser Asp Ala Gln Leu Arg Leu His Val
        595                 600                 605
Asp Pro Gly Asp Phe Leu Gln Trp Ile Arg Asp Pro Arg Leu Gln Trp
    610                 615                 620
Asp Leu Pro Ile Tyr Thr Cys Pro Ser Ala Asp His Leu Ala Ala Pro
625                 630                 635                 640
Asn Ser Ser Pro Leu Arg Glu Ala Ile Ala Ile Arg Leu His Arg Arg
                645                 650                 655
Tyr Cys Asp Gly Ile Lys Arg Ile Gln Lys Gln Asp Pro Cys Leu Leu
            660                 665                 670
Glu Arg Gly Ile Xaa Ile Thr Ile Lys Glu Trp His Glu Leu Glu Asp
        675                 680                 685
Met His Arg Lys Asn Ser Arg Ala Gln Ala Asp Asp Ile Ala Ser Lys
    690                 695                 700
Leu Arg Leu Ile Lys Cys Tyr Phe Ser Arg Lys Asp Ile Glu Arg Pro
705                 710                 715                 720
Ala Ser Phe Glu Phe Thr Thr His Gln Asn Glu Ile Leu Ala Gln Arg
                725                 730                 735
Asp His Glu Arg Pro Cys Tyr Ser Glu Ile Gly Lys Trp Leu Glu Ile
            740                 745                 750
Trp Glu Ile Glu Gly Asp Ser Glu Gln Ser Ile Pro Gln Leu Gly
        755                 760                 765
```

<210> 38771
<211> 88
<212> PRT
<213> A.fumigatus

<400> 38771

```
Leu Val Lys Leu Leu Ile Thr Ser Ile Val Val Asn Thr Pro Tyr Asp
1               5                   10                  15
Leu Gly Asn Tyr Lys Pro Ile Tyr Ser Leu Leu Leu Glu Tyr Leu Leu
            20                  25                  30
Asp Lys Thr Glu Ser Leu Glu Glu Leu Leu Gln Val Arg Val Val Ile
        35                  40                  45
Leu Thr Gly Trp Ala Gly Phe Ser His Leu Ser Asn Pro Thr Gln Thr
    50                  55                  60
```

```
Arg Arg Val Leu Arg Lys Ala Asn Leu Leu Gly Ser Ile Leu Pro Lys
65                  70                  75                  80
Asn Gln Leu Ser Thr Tyr Leu Ile
                85
```

<210> 38772
<211> 126
<212> PRT
<213> A.fumigatus

<400> 38772

```
Cys Gln Val Phe Leu Leu Leu Tyr Thr Val Phe Leu Thr Leu Ser Ser
1               5                  10                  15
Gln His Gly Phe Gly Gln Pro Ile Met Thr Leu Ser Met Asp Glu Ala
            20                  25                  30
Val His Ala Ile Tyr Leu Glu Met Val Gly Gln Thr Phe Ala Val Leu
        35                  40                  45
Gly Met Ala Ile Ala Lys Leu Ser Leu Gly Ile Phe Leu Leu Arg Ile
    50                  55                  60
Val Val Lys Thr Trp His Arg Val Ser Ile Trp Ala Ser Met Val Ser
65                  70                  75                  80
Leu Ser Ile Val Ser Val Met Thr Ala Val Leu Phe Trp Thr Gln Arg
                85                  90                  95
Leu Pro Ser Arg Ser Ile Tyr Asp Pro Arg Val Pro Gly Arg Thr Val
            100                 105                 110
Val Asn Ile Val Pro Phe Ser Val Leu Leu Gly Cys Lys Ser
        115                 120                 125
```

<210> 38773
<211> 65
<212> PRT
<213> A.fumigatus

<400> 38773

```
Gln Glu Cys Ala Thr Arg Leu Glu Leu Thr Asp Leu Ala Trp Cys Ala
1               5                  10                  15
Ala Val Asp Phe Tyr Phe Ala Ile Leu Pro Trp Ile Phe Ile Trp Lys
            20                  25                  30
Leu Asn Met Lys Gln Lys Glu Lys Leu Val Ile Ala Ile Ser Leu Ser
        35                  40                  45
Leu Gly Phe Met Ser Val Ala Ile Leu Pro Cys Leu Ala Val Asp Ala
    50                  55                  60
His
65
```

<210> 38774
<211> 142
<212> PRT
<213> A.fumigatus

<400> 38774

```
His Thr Trp Tyr Ile Pro Glu Asp Thr Ile Asp Leu Ile Ile Trp Ser
1               5                  10                  15
Ala Val Glu Leu Ala Ala Thr Ile Ile Cys Val Gly Ile Pro Thr Ile
            20                  25                  30
Arg Pro Leu Tyr Arg His Ile Val His Gly Ser Arg Phe Lys Glu Ser
```

```
        35                  40                  45
Asn Glu Gly Tyr Lys Lys His Asp Glu Ser Gly Glu Ser Asn Pro Gly
    50                  55                  60
Phe Arg Met Lys Pro Leu Gly Arg Lys Ala Arg Lys Gly Asp Leu Glu
65                  70                  75                  80
Thr Thr Ile Ser Thr Val Val Gly Asp Thr Val Phe Asp Met Pro Gly
                85                  90                  95
Gly Glu Thr Ser Ser His Val Gln Thr Ala Arg Glu Thr Asp Glu Glu
            100                 105                 110
Arg Leu Val Ser Pro Pro Arg Ala Pro His Val Asn Ser Ile Gln Val
        115                 120                 125
His Glu Glu Val Thr Val Glu Arg Ser Thr Met Leu Ser Arg
    130                 135                 140
```

<210> 38775
<211> 114
<212> PRT
<213> A.fumigatus

<400> 38775

```
Pro Gly His Ile Ser Arg Ile Phe Ser Ala Arg Phe Asp Val Ile Ser
1               5                   10                  15
Leu Cys Val Arg Ala Thr Glu Val Lys Ser Ile Leu Pro Leu Asn Ser
            20                  25                  30
Ile Met Val Asp Asp Ser Ile Arg Ile Glu Ala His Asn Lys Met Gly
        35                  40                  45
Ala Phe Glu Gln Arg His Asp Leu Ser Val Ala Gly Lys Leu Pro Asn
    50                  55                  60
Lys Ile Phe Ala Gly Leu Phe Pro Arg Glu Met Ala Thr Gln Leu Tyr
65                  70                  75                  80
Ser Phe Ser Ala Glu Val Phe Arg Ile Asp Tyr His Asn Lys Thr Ile
                85                  90                  95
Arg Ile Ser Gly Pro Val Ile Val Thr Glu Arg Thr Gly Ala Asp Val
            100                 105                 110
Arg Pro
```

<210> 38776
<211> 64
<212> PRT
<213> A.fumigatus

<400> 38776

```
Asn Leu Ala Val Tyr Cys Asp Ser Asn Ser Gln Gln Arg Thr Gly Glu
1               5                   10                  15
Val Lys Trp Thr Asp Ile Asp Ser Ile Arg Leu Gln His Pro Glu Trp
            20                  25                  30
Asn Asp Asp Ala Ser Ser Cys Arg Lys Ser Asp Ser Asn Gly His Pro
        35                  40                  45
Asn Ser Ser Phe Asp Ala Phe Thr Gly Thr Lys Cys Phe Glu Arg Gln
    50                  55                  60
```

<210> 38777
<211> 1292
<212> PRT
<213> A.fumigatus

<400> 38777

```
Leu Lys Asp Gly Pro Lys Lys Leu Gly Leu Asn Gly Ser Ser Asp Thr
1               5                  10                  15
Asn Gly Cys Phe Ala Ser Leu Ile Leu Lys Pro Phe Glu Phe Arg Ala
            20                  25                  30
Tyr Val Pro Lys Asn Arg Phe Ile Ala Pro Arg Pro Met Ile Thr Gln
        35                  40                  45
Ile Thr Pro Gly His Asp Thr Pro Leu Leu Ser Lys Val Ala Pro Asp
    50                  55                  60
Gln Ala Glu Glu Ile Asp Val Ser Ile Tyr Phe Ser Ala Glu Met Asp
65                  70                  75                  80
Cys Asp Ser Val Thr Lys Ser Ile Thr Leu Asn Ser Thr Thr Glu Ser
                85                  90                  95
Gly Lys Thr Pro Ser Val Asp Ser Lys Ser Ala Ser Cys Arg Lys Ile
            100                 105                 110
Pro Ala Thr Asp Thr Gln Trp Thr Gly Gln Leu Pro Asn Val Trp Val
        115                 120                 125
Trp Thr Gly Lys Leu Thr Gly Val Tyr Asn Gly Ile His Arg Leu Thr
    130                 135                 140
Val Thr Asn Ala Ser Asp Ser Ala Gly Thr Ser Ala Thr Asn Ala Ile
145                 150                 155                 160
Asp His Phe Leu Phe Arg Val Gly Gln Ser Asp Asn Pro Met Val Phe
                165                 170                 175
Thr Ser Ala Asn Tyr Ser Ser Ser Leu Leu His Glu His Glu Asn Gly
            180                 185                 190
Thr Leu Phe Ile Gln His His Ala Ala Gly Ala Asp Lys Tyr Arg Tyr
        195                 200                 205
Ser Thr Asn Trp Gly Ser Ser Phe Ser Asp Trp Met Asp Tyr Lys Gly
    210                 215                 220
Gly Asn Glu Thr Ile Glu Glu Leu Pro Trp Ser Gly Thr Glu Lys Gln
225                 230                 235                 240
Lys Trp Gln Gly Lys His Val Arg Val Glu Tyr Trp Ser Lys Leu Thr
                245                 250                 255
Gly Ser Ser Asp Tyr Val Gln Glu Gly Asp Ser Gly Trp Asp Ser Asn
            260                 265                 270
Arg Pro Arg Arg Phe Pro His Leu Phe Phe Asn Gly Pro Tyr Asn Gln
        275                 280                 285
Tyr Gly Tyr Asp Ala Gly Leu Asp Asn Ala Val Gln Leu Gly Asp Asp
    290                 295                 300
Gly Leu Trp Arg Phe Arg Phe Val Ala Glu Trp Pro Ala Gln Gly Gln
305                 310                 315                 320
Phe Asn Val Trp Gly Ile Asn Pro Asp Gly Gln Pro Asp Gln Ser Phe
                325                 330                 335
Val Phe Gly Asp Ala Asp Met Asp Gly Val Leu Asp Arg Met Pro Pro
            340                 345                 350
Ser Ser Leu Ser Thr Thr Leu Ile Asn Ile Thr Asp His Pro Pro Ala
        355                 360                 365
Pro His Leu Ala Trp Val Leu His Leu Asp Asp Ser Thr Leu Gln Phe
    370                 375                 380
Gln Leu Glu Pro Thr Gly Ser Arg Ala Ala Gln Met Ala Ala Phe Phe
385                 390                 395                 400
Leu Leu Trp Leu Ile Pro Val Leu Thr Ala Ala Ala Cys Val Tyr Gly
                405                 410                 415
Phe Lys Lys Ser Phe Tyr Gln Val Lys Phe Asn Gln Val Gly Val Ser
            420                 425                 430
```

```
Glu Lys Lys Lys Leu Leu Pro Leu Trp Leu Arg Arg Lys Ile Lys Arg
        435                 440                 445
Ala Asp Leu Glu Asp Gly Glu Pro Met Asn Pro Leu Val Arg Phe Ala
    450                 455                 460
Asn Arg Ser Ser Phe Val Gln Ser Arg Ser Ala Phe Asn Glu Gly Thr
465                 470                 475                 480
Leu Lys Arg Arg Thr Val Leu Ile Ala Thr Met Glu Tyr Asp Ile Glu
                485                 490                 495
Asp Trp Ala Ile Lys Ile Lys Ile Gly Gly Leu Gly Val Met Ala Gln
            500                 505                 510
Leu Met Gly Lys Asn Leu Gly His Gln Asn Leu Ile Trp Val Val Pro
        515                 520                 525
Cys Val Gly Gly Val Asp Tyr Pro Glu Asp Gln Arg Ala Asp Pro Met
    530                 535                 540
Phe Val Thr Val Leu Gly Asn Ser Tyr Glu Val Asn Val Gln Tyr His
545                 550                 555                 560
Val Ile Lys Asn Ile Thr Tyr Val Leu Leu Asp Ala Pro Val Phe Arg
                565                 570                 575
Gln Gln Thr Lys Thr Glu Pro Tyr Pro Ala Arg Met Asp Asp Leu Asp
            580                 585                 590
Ser Ala Ile Tyr Tyr Ser Ala Trp Asn Gln Cys Ile Ala Gln Ala Ile
        595                 600                 605
Arg Arg Phe Ser Val Glu Leu Tyr His Val Asn Asp Tyr His Gly Ser
    610                 615                 620
Ile Ala Pro Leu Tyr Leu Leu Pro Gln Thr Ile Pro Ile Cys Leu Ser
625                 630                 635                 640
Leu His Asn Ala Glu Phe Gln Gly Leu Trp Pro Met Arg Thr Gln Lys
                645                 650                 655
Glu Lys Asp Glu Val Cys Ser Val Phe Asn Leu Asp Leu Asp Val Ala
            660                 665                 670
Ser Arg Tyr Val Gln Phe Gly Glu Val Phe Asn Met Leu His Ala Gly
        675                 680                 685
Ala Ser Tyr Leu Arg Leu His Gln Gln Gly Phe Gly Ala Val Gly Val
    690                 695                 700
Ser Lys Lys Tyr Gly Lys Arg Ser Tyr Ala Arg Tyr Pro Ile Phe Trp
705                 710                 715                 720
Gly Leu Lys Lys Val Gly Asn Leu Pro Asn Pro Asp Pro Thr Asp Thr
                725                 730                 735
Gly Glu Trp Asn Gly Glu Pro Thr Arg Gln Ser Asp Ile Lys Val Asp
            740                 745                 750
Ala Ala Tyr Glu Ala Ser Arg Gly Glu Phe Lys Arg Gln Ala Gln Glu
        755                 760                 765
Trp Ala Gly Leu Glu Gln Asn Pro Asn Ala Asp Leu Leu Val Phe Val
    770                 775                 780
Gly Arg Trp Ser Met Gln Lys Gly Ile Asp Leu Ile Ala Asp Val Met
785                 790                 795                 800
Pro Ala Val Leu Glu Ser Arg Ser Asn Val Gln Leu Ile Cys Val Gly
                805                 810                 815
Pro Val Ile Asp Leu Tyr Gly Lys Phe Ala Ala Leu Lys Leu Asp Arg
            820                 825                 830
Met Met Glu Leu Tyr Pro Gly Arg Val Phe Ser Arg Pro Glu Phe Thr
        835                 840                 845
Ala Leu Pro Pro Phe Ile Phe Ser Gly Ala Asp Phe Ala Leu Ile Pro
    850                 855                 860
Ser Arg Asp Glu Pro Phe Gly Leu Val Ala Val Glu Phe Gly Arg Lys
865                 870                 875                 880
```

```
Gly Ala Leu Gly Ile Gly Ala Arg Val Gly Gly Leu Gly Gln Met Pro
                885                 890                 895
Gly Trp Trp Tyr Asn Val Glu Ser Thr Thr Thr Ser His Leu Leu His
            900                 905                 910
Gln Phe Lys Leu Ala Ile Gly Ser Ala Leu Asp Ser Lys Pro Lys Val
        915                 920                 925
Arg Ala Ile Met Arg Ala Arg Ser Ala Lys Gln Arg Phe Pro Val Ala
    930                 935                 940
Gln Trp Val Glu Asp Leu Glu Ile Leu Gln Ser Thr Ala Ile Arg Ile
945                 950                 955                 960
His Ser Lys Glu Leu Ala Lys Ser Ser Gly Gln Thr Leu Thr Pro Ser
                965                 970                 975
Gly Cys Asn Thr Pro Ser Gly Thr Met Thr Pro Pro Val Ala Gly Asn
            980                 985                 990
Leu Thr Pro Thr Gly Ile Gln Thr Pro Pro Leu Met His Ser Arg Glu
        995                 1000                1005
Pro Ser Val Ser Asn Ala Ser Arg Leu Ser Val Leu Gly Pro Gln Gln
    1010                1015                1020
Arg Asn Thr Ile Val Tyr Ser Arg Asp Pro Ser Pro Gly Met Ile Glu
1025                1030                1035                1040
Lys Pro Lys Ser Gly Leu Ser Arg Gln Leu Ser Leu Gly Val Arg Ala
                1045                1050                1055
Gly Pro Gly His Leu Glu Arg Arg Gly Arg Arg Lys Leu Lys Lys Met
            1060                1065                1070
Asn Gln Ala Gly Ser Asp Asp Asn Gln Asn Ser Thr Thr Asp Val Glu
        1075                1080                1085
Ser Ser Ser Asp Asp Asp Ile Ile Pro Ser Tyr Tyr Gly Asp Asp Glu
    1090                1095                1100
Tyr Thr Leu Thr Pro Glu Gln Ala Glu Ala Gly Arg Gln Thr Glu Ile
1105                1110                1115                1120
Ser Gln Gln Gln Gly His His Ser Val Trp Thr Pro Arg Asp Phe Phe
                1125                1130                1135
Ser Gln Arg His Ser Ser Gln Thr Ser Ile Ser Phe Asn Thr Pro Leu
            1140                1145                1150
Ser Pro Thr Ser Thr Gly Val Thr Glu Ala Asp Asp Ala Ile Phe Pro
        1155                1160                1165
Pro Ala Arg Arg Met Leu Glu Pro Ala Asn Pro Ser His Arg Leu Ser
    1170                1175                1180
Ser Ala Ser Val Leu Ser Val Asp Ser Ile Val Gly Ala Lys Arg Asp
1185                1190                1195                1200
Tyr Arg Leu Gln Arg Val Asp Pro Phe Phe Thr Asp Ser Thr Gly Glu
                1205                1210                1215
Phe Tyr Arg Ile Phe Glu Lys Lys Leu Glu Thr Leu Asn Gly Leu Asn
            1220                1225                1230
Ser Glu Ser Gln Leu Cys Ile Glu Glu Tyr Leu Val Lys Ser Glu Lys
        1235                1240                1245
Lys Trp Phe Asn Arg Phe Arg Asp Ala Arg Leu Gly Arg Asn Gln Ser
    1250                1255                1260
Pro Ala Ser Ser Val Phe Arg Ile Lys Arg Asp Tyr Ser Pro Ser Ser
1265                1270                1275                1280
Pro Arg Gly Trp Lys Gly Pro Ser Val Val Tyr Ser
                1285                1290
```

<210> 38778
<211> 173
<212> PRT

<213> A.fumigatus

<400> 38778

```
Ala Pro Ile Leu Leu Arg Leu Gln Ser His Pro Ala Pro Leu Pro Pro
1               5                  10                  15
Arg His Pro Pro Pro Pro Pro Pro His Pro Leu Leu Arg Pro Ile Pro
            20                  25                  30
Pro Pro Ala His Leu His Pro Arg Cys Pro His His Arg Thr Cys Leu
        35                  40                  45
Arg Leu Gln Ser His Leu Arg Val Arg Leu Arg Pro Ser Pro Leu Leu
    50                  55                  60
Asn Tyr Gly Asn Asp Pro Phe Pro Gln Gln Pro Val Val Leu Gln Leu
65                  70                  75                  80
Asn Arg Pro Arg Ile Trp His Gln Thr Asp His Arg Leu Pro Val Leu
                85                  90                  95
Tyr Trp Tyr Gln Leu Lys Phe Pro Arg Pro Arg Ser Leu His Asp Ala
            100                 105                 110
Ser Tyr His Leu Gly Glu Ser His Cys Leu Arg Arg His Arg Val Val
        115                 120                 125
Val Asp Phe Val Val Leu Glu His Leu His Ile His Ala Leu Arg Leu
    130                 135                 140
Ser Arg His Leu Pro Pro Arg Leu Thr Pro Leu Gln Leu Thr Leu Leu
145                 150                 155                 160
Leu Ala Pro Phe Leu Thr Ala Leu Pro Thr His Leu Arg
                165                 170
```

<210> 38779
<211> 165
<212> PRT
<213> A.fumigatus

<400> 38779

```
Thr Arg Tyr Leu Leu Ala Glu Lys Cys Phe Asp Lys Ile Asp Val Phe
1               5                  10                  15
Glu Gln Arg Gly Ser Val Gly Gly Val Trp Asn Tyr Thr Pro Ala Ala
            20                  25                  30
Leu Lys Ala Ser Leu Val Thr Gln Val Pro Gln Leu Asn Pro Asp Gly
        35                  40                  45
Pro Ile Glu Glu Pro Ile Trp Tyr Arg Phe Gly Glu Thr Glu Glu Thr
    50                  55                  60
Arg Gln Leu Thr Phe Thr Ser Pro Ile Tyr Ser Thr Leu Asp Thr Asn
65                  70                  75                  80
Ile Pro Lys Glu Leu Met Ala Tyr Ser Asp Lys Pro Phe Pro Ala Asp
                85                  90                  95
Cys Gln Ala Leu Pro Arg His Ser Thr Val Lys Lys Tyr Leu Glu Glu
            100                 105                 110
Tyr Ala Glu Asp Val Lys Asp Leu Ile Gln Phe Glu Thr Gln Val Leu
        115                 120                 125
Asp Val Arg Pro Glu Gly Gln Thr Asn Lys Ala Trp Ala Leu Thr Thr
    130                 135                 140
Arg Asn Leu Arg Thr Gly Ala Lys Glu Thr Gln Ser Arg His Thr Gly
145                 150                 155                 160
Leu Glu Tyr Arg Gly
                165
```

<210> 38780

<211> 209
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (39),(40),(42),(52)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38780
Ala Tyr Thr Leu Arg Phe Pro Ser Asn Arg Gly Arg Asn Gly Pro Ser
1 5 10 15
Arg Arg Arg Met Leu Leu Ser Gln Asn Lys Glu Arg Gly Asp Leu Ser
20 25 30
Ala Thr Leu Ala Gln Arg Xaa Xaa Thr Xaa Pro Ser Pro Arg Thr Asp
35 40 45
Pro Thr Ile Xaa Val Ala Val Leu Ser Ala Asp Ala Lys Arg Ile Leu
50 55 60
Phe Gly Arg Ser Lys Arg Phe Pro Pro Asn Trp Tyr Ser Thr Leu Ala
65 70 75 80
Gly Phe Ile Glu Pro Ala Glu Ser Val Glu Asp Ala Val Arg Arg Glu
85 90 95
Val Trp Glu Glu Ala Gly Val Thr Leu Ser Arg Val Val Ile His Ser
100 105 110
Ser Gln Pro Trp Pro Tyr Pro Ala Asn Leu Met Ile Gly Ala Ile Ala
115 120 125
Gln Val Ser Asp Pro Glu His Glu Lys Ile Ser Leu Leu His Asp Pro
130 135 140
Glu Leu Glu Asp Ala Lys Trp Phe Glu Ile Gln Glu Val Glu Glu Ala
145 150 155 160
Leu Arg Val Gly Thr Ser Ala Leu Gly Glu Thr Pro Gly Pro Glu Tyr
165 170 175
Lys Gly Gly Leu Arg Leu Pro Pro Pro Thr Ala Ile Ala His Gln Leu
180 185 190
Ile Arg Ala Ala Ile Thr Gly Asp Tyr Ile Ile Ser Lys Glu Ser Lys
195 200 205
Met

<210> 38781
<211> 83
<212> PRT
<213> A.fumigatus

<400> 38781
Leu Gly Phe Arg Ile Arg Thr Val Ile Val Ile Leu Val Arg Leu Leu
1 5 10 15
Leu Val Leu Lys His Arg Ser Phe Phe Val Phe Asn Leu Ile Leu Leu
20 25 30
Leu Phe Leu Leu Val Ile Leu Leu Leu Leu Leu Leu Ile Leu Phe Phe
35 40 45
Ala Gln Tyr Leu Arg Pro Pro Ile Ser Thr Leu Asp Ala Leu Ile Ile
50 55 60
Glu Arg Ala Phe Val Phe Lys Val Thr Phe Val Phe Val Phe Ala Pro
65 70 75 80
Leu Leu Phe

<210> 38782
<211> 134
<212> PRT
<213> A.fumigatus

<400> 38782
Lys Arg Arg Gly Ala Lys Thr Asn Thr Lys Val Thr Leu Lys Thr Lys
1 5 10 15
Ala Arg Ser Met Met Arg Ala Ser Arg Val Glu Met Gly Gly Arg Arg
20 25 30
Tyr Trp Ala Lys Lys Arg Met Arg Arg Arg Arg Arg Arg Met Thr Arg
35 40 45
Arg Lys Arg Ser Arg Met Arg Leu Lys Thr Lys Lys Asp Arg Cys Leu
50 55 60
Arg Thr Ser Lys Arg Arg Thr Arg Met Thr Met Thr Val Arg Ile Leu
65 70 75 80
Asn Pro Ser His Ile Gln Val Lys Ile Pro Gln Leu Gly Pro Arg Lys
85 90 95
Leu Phe Ile Arg Arg Ser Ser Ser Trp Thr Ala Thr Ala Lys Thr Arg
100 105 110
Leu Leu Ser Val Leu Arg Gln Thr Leu Ile Cys His Arg Pro Asn Met
115 120 125
Leu Leu Gln Leu Met Met
130

<210> 38783
<211> 1254
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (906),(1059)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38783
Ile Trp Arg Ser Ser Gln His Phe Ser Thr Val Lys Leu Asp Pro Ser
1 5 10 15
Thr Val Ser Thr Gln Asp Thr Glu Asn Val Phe Ala Pro Pro Ala Thr
20 25 30
Pro Ile Thr Asn Gly Cys Val Glu Arg Asp Glu Ala Thr Ser Ala Ala
35 40 45
Arg Phe Glu Ser Gly Arg Ser Pro Ala Phe Val Glu Arg Thr Arg Thr
50 55 60
Ser Phe Gly Gly Leu Val Asp Ser Ala Tyr Asp Pro Phe Ala Glu Ala
65 70 75 80
Asp Gly Phe Val Pro Gly Lys Gly Arg Lys Arg Pro Arg Phe Ser Phe
85 90 95
Lys Gly Ala Asn Trp Arg Leu Val Asp Glu Pro Ala Ser Pro Gly Glu
100 105 110
Thr Glu Ala Pro Ala Asp Trp Thr Trp Met Phe Glu Glu Ala Glu Thr
115 120 125
His Glu Ser Asp Ile Gly Gly Glu Asp His Ile Asp Ser Ala Thr Val
130 135 140

```
Pro Gln Glu Val Ser Ala Val Thr Ala Thr Val Pro Asn Thr Pro Glu
145                 150                 155                 160
Ala Ala Asp Thr Val Ala Asp Val Asp Asn Glu Ser Leu Asp Val Gly
                165                 170                 175
Leu Met Ser Thr Glu Arg Met Ala Glu Gln Pro Thr Arg Pro Ser Phe
            180                 185                 190
Glu Phe Ser Gln Pro Leu Arg Ala Pro Gly Phe Pro Gln His Phe Ala
        195                 200                 205
Arg Gln Gln Leu Ala Asp Ser Asp Phe Pro Tyr Pro Thr Asp Thr Pro
    210                 215                 220
Arg Leu Tyr Pro Ile Pro Ser Pro Gly Leu Pro Ile Pro Ser Pro Leu
225                 230                 235                 240
Val Thr Arg Ser Ser Ser Ala His Asp Tyr Phe Pro Thr Val Ala Ser
                245                 250                 255
Asn Val Gln Thr Pro Ser Ala Ala Asp Gly Glu Asn Val Glu Met Thr
            260                 265                 270
Glu Lys Glu Asn Ile Val Val Tyr Lys Val Gln Pro Asp Val Pro Thr
        275                 280                 285
Ser Lys Glu Leu Gln Pro Leu Val Thr Thr Pro Gln Pro Ala Ile Ala
    290                 295                 300
Arg Asn Thr Leu Asp Leu Thr Ser Gln Asn Ala Ser Ile Asp Leu Glu
305                 310                 315                 320
Ala Asp Arg Gln Gly Asp Met Lys Ser Thr Ser Thr Ala Asp Thr Met
                325                 330                 335
Pro Ile Glu Tyr Arg Ala Pro Ala Gln His Pro Glu Asp Val Glu Lys
            340                 345                 350
Gln Ile Ser Asn Ala Pro Leu Val Ser Leu Asp Gln Ser Tyr Ala Gly
        355                 360                 365
Lys Pro Ala Glu Phe Ala Asn Ser Asp Ile Arg Asn Val Val Glu Glu
    370                 375                 380
Glu Leu Glu Gln Ser Asp Ile Asn Gln Glu Asn Gly Glu Ile Gln Val
385                 390                 395                 400
Glu Glu Ser Asn Gly Thr Ser Glu Asp Glu Leu Glu Glu Gln Ser Glu
                405                 410                 415
Met Glu Leu Thr Glu Glu Ser Val Glu Glu Glu Ser Ala Glu Glu Glu
            420                 425                 430
Asp Asp Asp Leu Val Glu Glu His Gly Tyr Gly Asp Val Gln Glu Gln
        435                 440                 445
Arg Ser Gln Arg Pro Pro Asp Ala Phe Gly Asp Asn Asp Phe His Gln
    450                 455                 460
Asp Asp Thr Arg Arg His Glu Asp Ser Glu Val Glu Glu Ile Ser Ile
465                 470                 475                 480
Gly Thr Asn Arg Ala Leu Glu Asp Asp Asp Leu Ser Asp Ala Arg Ser
                485                 490                 495
Glu Ala Tyr Ser Ala Ala Glu Arg Gln Ala Ala Glu Glu Arg Gly His
            500                 505                 510
Phe His Asn Leu Glu Glu Glu Arg Gly Glu Asp Glu His Glu Gly Asp
        515                 520                 525
Phe Glu Asp Glu Gly Thr Phe Asp Asp Glu Gly Ile Glu Gly Gly Asp
    530                 535                 540
Gly Arg Ala Glu Val Leu Gly Glu Glu Glu Asp Glu Glu Glu Glu Glu
545                 550                 555                 560
Glu Asp Asp Glu Glu Glu Glu Glu Gln Asp Glu Ile Glu Asp Glu Glu
                565                 570                 575
Gly Ser Val Leu Lys Asp Glu Gln Glu Ala Tyr Glu Asp Asp Tyr Asp
            580                 585                 590
```

```
Arg Ser Asp Ser Glu Ser Glu Ser Tyr Thr Gly Glu Asp Ser Pro Ala
        595                 600                 605
Arg Pro Glu Lys Val Val His Pro Glu Val Ile Val Leu Asp Ser Asp
    610                 615                 620
Ser Glu Asp Glu Ala Val Val Ser Pro Pro Thr Asn Thr His Met Ser
625                 630                 635                 640
Ser Ala Lys Tyr Ala Ala Thr Val Asp Asp Val Asp Ser Ser Ala Thr
                645                 650                 655
Ser Ala Gly Glu Asn Asp Gly Tyr Asp Arg Gly Ser Val Gly Ser Glu
            660                 665                 670
Ala Glu Glu Gly Pro Glu Asp Glu Leu Ala Glu Asp Asp Gln Thr Gly
        675                 680                 685
Asp Asp Lys Thr Glu Glu Glu Ser Thr Gln Asp Glu Val Asp Val Arg
    690                 695                 700
Asp Asn Ala Glu Asp Glu Leu Met Glu Asp Ala Pro Ser Asp Glu Asp
705                 710                 715                 720
Phe Val Ser Glu Glu Pro Ile Glu Val Gln Ala Asp Ala Glu Glu Asn
                725                 730                 735
Ser Ala Ser Ala Asp Pro Val Gln Cys Glu Val Gln Gln Glu Ala Asp
            740                 745                 750
Ile Glu Asn Glu Leu Ile Ser Glu Thr Leu Asn Val Leu Gln Ala Thr
        755                 760                 765
Ser Gly Ala Pro Gln Ser Ile Glu Gly Gln Ser Met Ala Ser Leu Gly
    770                 775                 780
Val Ser Val Val Gln Ser Thr Gln Gly Pro Tyr Thr Asp Ser Val Tyr
785                 790                 795                 800
Gly Pro Gln Pro Arg Asp Leu Ala Ile Asp Pro Glu Leu Tyr Arg Leu
                805                 810                 815
Gly Gly Thr Gly Glu Asp Glu Thr Arg Arg Pro Glu Thr Asp Ala Arg
            820                 825                 830
Ala Glu Ser Gly Pro Asp Lys Ser Gly Leu Glu Asp Glu Gly Ile Arg
        835                 840                 845
Glu Pro Phe Phe Gln Cys Ala Val Ser Pro Gln Pro Val Asp Ser Ser
    850                 855                 860
Ala Glu Leu Ala Ser Pro Val Gln Glu Pro Ser Thr Gln Ala Pro Gln
865                 870                 875                 880
Leu Val Thr Pro Asp Ala Ser Gln Leu Ala Thr His Ser Arg Arg Leu
                885                 890                 895
Pro Thr Ala Ile Pro Val Ala Glu Phe Xaa Pro Thr Pro Glu Gln Thr
            900                 905                 910
Gln Glu Val Pro Gln Gly Leu Ser Thr Gln Tyr Asp Gly His Thr Asp
        915                 920                 925
Ala Pro Glu Arg Thr Leu Leu His Ile Ser Thr Thr Ser Val Glu Thr
    930                 935                 940
Asp Val Ser Ser Thr Asn Glu Tyr Asn Val Gln Met Ser Ser Ala Leu
945                 950                 955                 960
Ala Glu Gln Gln Arg Gln Met Gln Thr Asp Gly Val Ser Val His Asp
                965                 970                 975
Glu Glu Tyr Ala Ile Ser Ser Val Ala Asp Glu Ile Ala Ser Gly Val
            980                 985                 990
His Asp Trp Glu Val Ser Ala Leu His Ser Glu Arg Leu Ser Ser Val
        995                 1000                1005
Val Asn Arg Asp His Pro Gly Leu Arg Ser Lys Tyr Ser Tyr Phe Ala
    1010                1015                1020
Pro Leu Ala Met Leu Ile Asp His Tyr Asn Ser Leu Ile Asp Thr Ile
1025                1030                1035                1040
```

```
Ser Val Val Ser Asp Ala Ser Pro Ile Ser Arg Ala Pro Thr Cys Lys
                1045                1050                1055
Glu Asp Xaa Thr Trp Ser Leu Leu Phe Thr Asp Pro Ser Met Ala Gly
            1060                1065                1070
Thr Ile Val His Val Glu Ile Phe Arg Pro His Lys Tyr Ala Leu Pro
        1075                1080                1085
Ser Val Thr Glu Gly Asp Ala Ile Leu Leu Arg Asn Phe Gln Val Lys
    1090                1095                1100
Ser Phe Asn Arg Ser Met Met Leu Val Ser Val Asp Thr Ser Ala Trp
1105                1110                1115                1120
Ala Val Phe His Asn Ala Ser Lys Glu Ala Gln Ile Ala Gly Pro Pro
                1125                1130                1135
Val Glu His Gly Asp Glu Glu Thr Ala Tyr Ala Thr Asp Leu Arg Gln
            1140                1145                1150
Trp Tyr His Glu Val Gly Val Ala Met Val Ala Asp Tyr Gln Leu Gln
        1155                1160                1165
Ala Ser Val Leu Thr Ala Ser Arg Glu Ala Thr Pro Val Ser Ser Ala
    1170                1175                1180
Ala His Ser Asp Ala Gly Ser Val Asp Ser Ala Ser Arg Glu Val Arg
1185                1190                1195                1200
Gly Glu Ser Ser Val Ser Asn Arg Gly Ser Lys Arg Arg Lys Ser His
                1205                1210                1215
Arg Arg Ile Thr Ile His Glu Leu Arg Asp Gly Arg Arg Tyr Thr Glu
            1220                1225                1230
Val Gly Ser Pro Ser Asp Lys Glu Ser Ile His Glu Leu Arg Asp Gly
        1235                1240                1245
Thr Leu Tyr Ala Asn Leu
    1250

<210> 38784
<211> 101
<212> PRT
<213> A.fumigatus

<400> 38784
Phe Gly Cys Arg Leu Gly Asn Pro Val Met Tyr Phe Val Arg Gly Gln
1               5                   10                  15
Ala Leu Tyr Val Tyr Gln Leu Arg Glu Phe Phe Phe Phe Phe Leu Ser
            20                  25                  30
Asp Lys Trp Phe Arg Tyr Asp Arg Thr Gly Ser Trp Leu Leu Gly Asp
        35                  40                  45
Gly Asp Gln Ile Ala Gly Ala His His Arg Leu Lys Val Arg Asp Tyr
    50                  55                  60
Tyr Asp Gln Lys Asn Phe Val His Lys Leu Arg Thr Ser Leu Ser Pro
65                  70                  75                  80
Arg Ser Met Ala Arg Cys Ser Tyr Asn Met Ile Tyr Gly Ser Asn Thr
                85                  90                  95
Val Tyr Thr Arg His
            100

<210> 38785
<211> 72
<212> PRT
<213> A.fumigatus

<400> 38785
```

```
Gly Cys Asp Ala Thr Cys Asp Leu Arg Gly Glu Tyr Phe Phe Ser Ala
1               5                  10                  15
Ile Leu Arg Gly Val His Leu Ser Val Thr Ala Ile Ser Thr Met Leu
            20                  25                  30
Thr His Arg Val Arg Val Ser Gly Asn Ser Ser Leu Glu Ala Glu Ala
        35                  40                  45
Arg Thr Phe Ala Ala Arg Phe Leu Phe Phe Val Ser Asp Phe Asp Thr
    50                  55                  60
Gly Cys Ala Gly Ala Ser Thr Asp
65                  70
```

<210> 38786
<211> 79
<212> PRT
<213> A.fumigatus

<400> 38786

```
Ser Tyr Leu Ser Asp Lys Ile Val His Asn Val Asp Val Thr Leu Ala
1               5                  10                  15
Leu Ile Ala Gly Ser Arg Cys Ser Ala Tyr Gly Asp Asn Met Ala Tyr
            20                  25                  30
Ser Leu Asp Leu Lys Gln His His Ser Ser Arg Leu Arg Arg Tyr Arg
        35                  40                  45
Pro Thr Ala Thr Glu Ser Ala Thr Ile Lys Ser Val Asn Gln Asn Gly
    50                  55                  60
Ser Gly Gly Asn Glu Val Val Gly Met Arg Val Gly Ser Leu Gln
65                  70                  75
```

<210> 38787
<211> 62
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (8),(56)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38787

```
Ile Leu Ser Glu Glu Thr Ala Xaa Gly Asn His Val Thr Ser Lys Ser
1               5                  10                  15
Gly Lys Arg Leu Tyr Asn Ser Ile Val Asp Lys Arg Gly Ser Ala Ala
            20                  25                  30
Glu Trp Leu Val Ser Asp Asn Tyr Ser Gly Leu Asp Gln Leu Asp Arg
        35                  40                  45
Asp Cys Asp Met Gly Asp Ala Xaa Leu Ser Leu Phe Gly Ile
    50                  55                  60
```

<210> 38788
<211> 74
<212> PRT
<213> A.fumigatus

<400> 38788

```
Glu Leu Leu Met Ile Ala Ser Phe Gly Ala Pro Pro Leu Asp Gln Leu
1               5                  10                  15
```

```
His Thr Thr Arg Asp Thr Val Thr Arg Ala Asn Pro Asp Gln Ile Thr
            20                  25                  30
Arg Thr Pro Ile Thr Thr Met Ala Lys Gln Pro Leu Val Lys Thr Leu
        35                  40                  45
Gln Phe Glu Lys Lys Asn Lys Asp Met Leu Lys Leu Pro Lys Cys Thr
    50                  55                  60
Val Leu Ser Cys Pro Thr Gln Leu Asp Ala
65                  70
```

<210> 38789
<211> 330
<212> PRT
<213> A.fumigatus

<400> 38789

```
Ser Gly Gly Ser Arg Arg Gly Ser Glu Arg Thr Phe Tyr Lys Arg Ser
1               5                   10                  15
Ala Leu Leu Ile Ser Leu Ser Val Ser Arg Ser Glu Thr Asp Gln Pro
            20                  25                  30
Ala Glu Ile Asp Glu Ala Phe Glu Lys Ala Phe Leu Tyr Ser Leu Tyr
        35                  40                  45
Lys Leu Lys Gln Asp Asn Pro Thr Ala Pro Asn His Gly Leu Ser Leu
    50                  55                  60
Pro Val Gln Pro Ser Ala Leu Val Ser Asn Met Leu Thr Pro Tyr Leu
65                  70                  75                  80
Pro Ile Tyr Ser Ser Gln Gln Ala Gln Tyr Tyr Gln Ile Lys Lys Thr
                85                  90                  95
Ser Trp Lys Asn Val Lys Lys Phe Ile Lys Tyr Leu Asp Lys Gln Arg
            100                 105                 110
Leu Val Lys Ser Lys Asp Arg Ser Gly Gln Glu Thr Val Ile Ile Asp
        115                 120                 125
Val Asp Phe Asn Asp Pro Arg Val Glu Gln Phe Val Pro Tyr Lys Leu
    130                 135                 140
Pro Ser Lys Asn Ala Val Glu Asn Ala Gly Lys Ser Val Pro Gly Asn
145                 150                 155                 160
Lys Thr Pro Ala Thr Ser Glu Gly Asp Pro Ser Val Gly Gln Thr Ile
                165                 170                 175
Thr Val Gln Thr Leu Tyr Arg Pro Thr Gly Lys Leu Thr Pro Thr Ile
            180                 185                 190
Phe Pro Ala Leu Ser Ser Gly Asp Pro Arg Asn Tyr Tyr Lys Tyr Ser
        195                 200                 205
Glu Val Ser Asn Arg Leu Asp Glu Tyr Ile Gln Ser Gln Asn Pro Pro
    210                 215                 220
Ile Val Ser Ser Glu Asn Arg Arg Ile Ile Ser Leu Asn Pro Phe Leu
225                 230                 235                 240
Ala Asn Thr Ile Phe Thr Ser Ser Ser Ala Glu Asp Lys Thr Thr Ile
                245                 250                 255
Ala Arg Gly Met Thr Thr Arg Asp Gly Leu Leu Lys Arg Ile Val Glu
            260                 265                 270
Asp Ser Ala Phe Leu Thr Pro His Tyr Val Ile Leu Arg Gln Gly Gln
        275                 280                 285
Ala Pro Ser Asp Val Lys Pro Lys Ala Gly Ala Thr Pro Lys Ile Asn
    290                 295                 300
Leu Val Leu Glu Lys Arg Thr Gly Ser Lys Thr Val Thr Lys Val Ser
305                 310                 315                 320
Asn Leu Glu Ile Phe Gly Ile Val Pro Ser
```

325 330

<210> 38790
<211> 271
<212> PRT
<213> A.fumigatus

<400> 38790
Gly Ile Asn Phe Val Lys Val Ile Thr Tyr Met Ala Asn Cys Asn Gly
1 5 10 15
Asp Cys Ala Ser Val Asp Lys Thr Thr Leu Glu Phe Phe Lys Ile Asp
20 25 30
Glu Ser Gly Leu Ile Ser Asp Ser Asn Val Pro Gly Thr Trp Ala Ser
35 40 45
Asp Asn Leu Ile Ala Asn Asn Asn Ser Trp Thr Val Thr Val Pro Ser
50 55 60
Ser Ile Ala Ala Gly Asn Tyr Val Met Arg His Glu Ile Ile Ala Leu
65 70 75 80
His Ser Ala Gly Asn Gln Asn Gly Ala Gln Asn Tyr Pro Gln Cys Ile
85 90 95
Asn Leu Lys Val Thr Gly Gly Gly Ser Asp Lys Pro Ala Gly Thr Leu
100 105 110
Gly Thr Ala Leu Tyr Lys Asn Thr Asp Ala Gly Ile Leu Val Asn Ile
115 120 125
Tyr Gln Ser Leu Ser Ser Tyr Glu Ile Pro Gly Pro Ala Leu Tyr Ser
130 135 140
Gly Ala Ser Ser Gly Ser Ser Asn Asn Gly Gly Ser Ala Ser Ser Ser
145 150 155 160
Ala Thr Ala Pro Ser Ala Thr Ile Thr Gln Pro Ser Thr Ala Val Pro
165 170 175
Thr Ser Ser Ala Thr Ala Tyr Gln Pro Ser Thr Thr Thr Glu Ala Val
180 185 190
Thr Val Thr Ser Ile Pro Ala Gln Gln Ser Tyr Val Gln Ala Pro Thr
195 200 205
Ala Thr Pro Ser Ser Thr Ala Gly Ser Ser Gly Ser Gly Ser Gly Ser
210 215 220
Ser Ser Ser Gly Thr Leu Pro Ser Ser Ser Asn Leu Thr Glu Tyr Phe
225 230 235 240
Asn Ser Leu Ser Ala Glu Glu Phe Leu Lys Val Leu Lys Gln Thr Phe
245 250 255
Ser Trp Leu Val Thr Glu Lys Val His Ala Arg Asp Leu Ser Ala
260 265 270

<210> 38791
<211> 320
<212> PRT
<213> A.fumigatus

<400> 38791
Ile Lys Asn Leu Ala Pro Leu Arg Ser Ser Asp Arg Arg Lys Ile Ala
1 5 10 15
Asp Gln Ile Ile Ser Asp Tyr Asn Ile Ser Ile Pro Ser Ala Ala Pro
20 25 30
Ala Glu Asp Asp Ser Asn Thr Pro Thr Thr Ser Asn Gln Thr Ser Pro
35 40 45
Ser Ile Thr Ala Ile Arg Asn Ser Leu Leu Pro Glu Asn Ser Leu Ser

```
    50                  55                  60
Ala Arg Phe Thr Thr Thr Ala Gly Pro Gln Leu Arg Glu Val Gln Gly
65                  70                  75                  80
Thr Val Tyr Val Gly Thr His Pro Glu Gly Glu Glu Arg Ile Leu Trp
                85                  90                  95
Phe Lys Val Glu His Gly Pro Gly Ala Asp Gly Arg Phe Tyr Pro Thr
            100                 105                 110
Val Tyr Thr Leu Trp His Asn Pro Lys Leu Val Pro Leu Leu His Thr
        115                 120                 125
Pro Glu Met Val Met Gln Lys Leu Arg Gly Gly Ala Asp Leu Met Thr
    130                 135                 140
Pro Gly Leu Ala Asp Glu Pro Pro Phe Pro Glu Ser Ala Val Lys Gly
145                 150                 155                 160
Ala Val Val Ala Val Ala Gly Leu Asp Arg His Thr Val Pro Leu Phe
                165                 170                 175
Val Gly Val Cys Glu Ile Asp Ile Ala Gly Leu Gly Glu Val Gln Gly
            180                 185                 190
Thr Lys Gly His Ala Val Arg Gly Val His Trp Glu Gly Asp Glu Leu
        195                 200                 205
Trp Ala Trp Ser Ser Ser Ser Arg Pro Gly Gln Pro Ala Pro Glu Tyr
    210                 215                 220
Leu Ala Gly Trp Asp Leu Glu Ala Gly Glu Glu Asp Val Ala Glu Ile
225                 230                 235                 240
Glu Glu Arg Ala Thr Glu Leu Ser Leu Asp Gln Gly Gln Gln Thr Gln
                245                 250                 255
Ser Ala Glu Glu Val Pro Pro Val Asp Ser Ala Glu Gln His Glu Val
            260                 265                 270
Gly Ala Pro Val Glu Glu Val Lys Glu Pro Ser Thr Lys Gly Arg Arg
        275                 280                 285
Ser Leu Phe Leu Phe Arg Tyr Leu Val Arg Lys Leu Thr Asn Leu Gln
    290                 295                 300
Arg Ser Thr Arg Leu Leu Arg Lys Pro Ser Ser Ile Leu Cys Thr Asn
305                 310                 315                 320

<210> 38792
<211> 206
<212> PRT
<213> A.fumigatus

<400> 38792
Leu Leu Gln Pro Phe Trp Arg Tyr Lys Asn Cys Leu Arg His Asp Gly
1               5                   10                  15
Gly Gln Leu Ser Ser Val Leu Pro Ile Ser Ile Pro Phe Ser Arg Ser
            20                  25                  30
Gln His Leu Pro Phe Ser His Ser Val Leu Ser Ala Ser Leu Thr Glu
        35                  40                  45
Val Leu Phe Ser Ser Leu Phe Leu Ser Ser Leu Val Arg Phe Glu Pro
    50                  55                  60
Lys Ile Thr Leu Cys Val Asp Arg Leu Asp Asn Pro Thr Lys Ala Tyr
65                  70                  75                  80
Asn Met Ser Val Pro Lys Ile Ala Ala Ala Leu Leu Ser Ser Ala Ala
                85                  90                  95
Leu Val Ala Gly His Gly Phe Val Thr Gly Ala Val Val Asp Gly Lys
            100                 105                 110
Tyr Tyr Thr Gly Tyr Leu Val Asn Gln Tyr Pro Tyr Met Ser Ser Pro
        115                 120                 125
```

```
Pro Asp Ser Ile Gly Trp Ser Glu Thr Ala Thr Asp Leu Gly Phe Val
    130                 135                 140
Asp Gly Ser Gly Tyr Ser Ser Gly Asp Ile Ile Cys His Lys Asp Ala
145                 150                 155                 160
Lys Asn Gly Ala Ile Ser Ala Glu Ile Lys Ala Gly Gly Lys Val Glu
                165                 170                 175
Phe Gln Trp Thr Glu Trp Pro Glu Ser His His Gly Pro Val Cys Leu
            180                 185                 190
Arg Lys Thr Ser Met Glu Gln Leu Val Arg Val Leu Thr Ser
        195                 200                 205
```

<210> 38793
<211> 231
<212> PRT
<213> A.fumigatus

<400> 38793

```
Asp Leu Gln Glu Leu Phe Gly Ala Glu Gly Val Glu Val Leu Ser Glu
1               5                   10                  15
Val Ala Ala Ala Gly Lys Ser Ala Thr Gly Ala Arg Thr Gly Ala Gly
            20                  25                  30
Ala Gly Ala Ala Gly Ser Gly Ala Arg Gly Gly Gly Arg Ser Leu Asp
        35                  40                  45
Val Ala Leu Leu Gly Arg Asn Ala Gly Asp Cys Asp Ser Leu Gly Gly
    50                  55                  60
Ser Gly Gly Leu Val Ser Ser Arg Arg Ala Ser Arg Asp Cys Ser Arg
65                  70                  75                  80
Gly Leu Ser Asp Gly Gly Arg Arg Ser Ser Gly Ala Gly Arg Gly Gly
                85                  90                  95
Thr Thr Val Val Gly Ala Ala Arg Arg Ser Ala Arg Val Glu Ser Gly
            100                 105                 110
Thr Arg Asn Phe Ile Gly Ala Gln Ala Leu Val Asp Val Asp Gln Asp
        115                 120                 125
Ala Ser Ile Ser Val Leu Val Glu Arg Ser Ala Glu Gly Thr Cys Arg
    130                 135                 140
Leu Val Ala Ala Thr Thr Gly Asp Leu Lys Val Asp Ala Leu Arg Val
145                 150                 155                 160
Val Leu Gly Thr Ile Leu Val Ala Ser Gly Val Glu Gly Asn Asn Phe
                165                 170                 175
Val Thr His Asp Ile Val Thr Ser Gly Asp Gly Ala Gly Asn Ser His
            180                 185                 190
Gly Pro Ala Val Val Val Gly Asp Gln Val Val Arg Gly Pro Gly Ala
        195                 200                 205
Arg Asn Ile Gly Val Thr Asp Gln Thr Thr Leu Ile Asn Leu Glu Glu
    210                 215                 220
Leu Gln Ser Ser Leu Val Asn
225                 230
```

<210> 38794
<211> 70
<212> PRT
<213> A.fumigatus

<400> 38794

```
Arg Thr Lys Phe His Leu Glu Met Ser Pro Ser Ile Leu Tyr Met Phe
1               5                   10                  15
```

```
Pro Arg Ile Ile Ile Pro Asn Lys Ser Pro Ser Ile Lys Val Gln Asn
            20                  25                  30
Phe Thr Arg Ser Asn Val Thr Phe Thr Phe Ser Leu Ser Leu Thr Thr
        35                  40                  45
Asn Ala Leu Gly Asp Thr Thr Leu Arg Leu Thr Phe Asp Phe Lys Ala
    50                  55                  60
Tyr Met Cys Asn Ser Ile
65                  70
```

<210> 38795
<211> 82
<212> PRT
<213> A.fumigatus

<400> 38795

```
Ile Val Arg His Pro Gly His His Ser Lys Phe Asp Val Asn Pro Leu
1               5                   10                  15
Val Phe Arg Arg Ser Gly Ser Val Cys Leu Asp Val Ile Asn Gln Thr
            20                  25                  30
Trp Ser Pro Met Tyr Asp Met Ile Asn Ile Phe Glu Val Phe Leu Pro
        35                  40                  45
Gln Leu Leu Arg Tyr Pro Asn Pro Ser Asp Pro Leu Asn Gly Glu Ala
    50                  55                  60
Ala Ala Met Leu Met Arg Glu Pro Lys Ser Tyr Glu Ala Lys Val Lys
65                  70                  75                  80
Gly Glu
```

<210> 38796
<211> 63
<212> PRT
<213> A.fumigatus

<400> 38796

```
Lys Val Ser Asp Thr Ala Ile Gly Ser Gly Gln His Leu Leu Ile Gly
1               5                   10                  15
Ser Thr Glu Tyr Val Ala Lys Tyr Ala Ser Lys Glu Ala Val Asp Glu
            20                  25                  30
Ala Gly Glu Asp Thr Glu Ser Glu Asp Glu Leu Ser Ser Ala Gly Ser
        35                  40                  45
Tyr Glu Ser Gly Gly Glu Glu Pro Ala Gly Thr Met Asp Asp Val
    50                  55                  60
```

<210> 38797
<211> 252
<212> PRT
<213> A.fumigatus

<400> 38797

```
Ser Arg Leu Cys Thr Glu Arg Arg Tyr Asn Pro Val Pro Ser Val Val
1               5                   10                  15
Val Ser Pro Leu Val Met Ala Asp Pro Ala Ser Tyr Cys Pro Ser Thr
            20                  25                  30
Asn Gly Ser Asp Ser Phe Thr Tyr Asn Tyr Pro Ser Leu Leu Gln Ala
        35                  40                  45
Cys Ser Tyr Ile Val Thr Thr Pro Pro Thr His Leu Ser Ile Met Pro
```

```
    50                  55                  60
Gly Arg Leu Glu Glu Lys Val Ala Ile Val Thr Gly Ala Gly Ser Gly
65                  70                  75                  80
Phe Gly Tyr Gly Ile Ala Lys Lys Phe Val Glu Glu Gly Ala Asn Val
                85                  90                  95
Ile Ile Ala Glu Leu Ser Gln Gln Ser Gly Glu Lys Ala Ala Ala Glu
            100                 105                 110
Leu Asn Cys Lys Phe Val Leu Thr Asp Val Thr Arg Arg Glu Ser Trp
        115                 120                 125
Gln Ala Leu Leu Gln Ala Thr Leu Asp Ala Tyr Gly Lys Leu Asp Ile
    130                 135                 140
Val Val Asn Asn Ala Gly Ala Thr Tyr Ser Asn Lys Pro Thr Val Glu
145                 150                 155                 160
Val Thr Asp Ala Asp Phe Asp Leu Cys Met Asn Val Asn Ile Lys Ser
                165                 170                 175
Ile Tyr Leu Ser Thr Ser Val Ile Val Pro Tyr Phe Leu Gln Asn Asn
            180                 185                 190
Arg Pro Gly Ser Phe Ile Gln Ile Ser Ser Thr Ala Ala Leu Arg Pro
        195                 200                 205
Arg Pro Gly Leu Thr Trp Tyr Asn Ala Ser Lys Ala Ala Val Ser Asn
    210                 215                 220
Ala Thr Lys Thr Met Ala Val Glu Tyr Gly Pro Lys Gln Ile Arg Phe
225                 230                 235                 240
Asn Cys Val Cys Pro Val Val Gly Ser Thr Gly Met
                245                 250
```

<210> 38798
<211> 124
<212> PRT
<213> A.fumigatus

<400> 38798

```
Ser Cys Thr Pro Leu Met Arg Arg Leu Glu Ser Asp Ser Pro Cys Tyr
1               5                   10                  15
Val Phe Arg Thr His Leu Phe Leu Gly Lys Pro Asp Thr Glu Glu Asn
            20                  25                  30
Arg Ala Ala Phe Val Ser Thr Val Pro Leu Gly Arg Pro Ser Thr Pro
        35                  40                  45
Arg Asp Val Ala Asn Thr Cys Cys Phe Leu Ala Ser Asp Glu Ala Glu
    50                  55                  60
Phe Ile Thr Gly Val Asn Leu Glu Val Gly Thr Asp Leu Ile Cys Ser
65                  70                  75                  80
Ile Ser Ala Leu Thr Asn Gly Tyr Trp Asp Ser Gly Gly Arg Trp Thr
                85                  90                  95
Leu Cys Leu Ala Asn Ile Tyr Asp Val Ala Ile Tyr Arg Ala Tyr Val
            100                 105                 110
Glu Gly Ile Glu Cys Ser Thr Gly Gln Leu Ala Ile
        115                 120
```

<210> 38799
<211> 256
<212> PRT
<213> A.fumigatus

<400> 38799

```
Cys Ala Ile Ser Arg Phe Ala Gly Pro His Gly Asn Phe Ser Ala Ala
```

```
1               5                   10                  15
Phe Thr Gln Pro Pro Val Pro Ala Thr Leu Ser Gln Phe Val Pro His
            20                  25                  30
Gln Gly Thr Pro Thr Ser Asn Met Ser Pro Ser Ala Ala Gln Asn Leu
        35                  40                  45
Thr Gln Asn Met Ala Ser Val Ala Ala Asn Ser Met Leu Pro Ala Gln
    50                  55                  60
Gln Gln Gln Gln Gln His His Gln Gln Gln Gln Gln Gln Gln Gln Arg
65                  70                  75                  80
Pro Ser Gln Gln Pro Asn Gln Gln Gln Gly Ser Val Pro Thr Ala Ala
                85                  90                  95
Gln Ser Pro Ala Ala Ala Ala Arg Glu Lys Ala Arg Val Ser Thr Leu
            100                 105                 110
Leu Asp Ile Asn Ser Ile Leu Leu Gln Glu Val Ile Asn Leu Gln Ala
        115                 120                 125
Ala Gly Lys Ala Gly Gly Pro Pro Ser Gln Gln Ala Ser Gln Glu Asn
    130                 135                 140
Asn Pro Ser Pro Thr Ser Asp Gln Ala Ala Asp Ala Ala Lys Gly Pro
145                 150                 155                 160
Thr Gln Lys Pro Ser Leu Glu Tyr Val Glu Cys Met Arg Arg Leu Gln
                165                 170                 175
Ala Asn Leu Ala Tyr Leu Ala Thr Ile Ala Asp Arg Ala Lys Lys Ser
            180                 185                 190
Gly Gly Val Ala Pro Ala Ala Pro Ala Ile Met Thr Pro Pro Pro Asn
        195                 200                 205
Leu Pro Ala Val Asn Glu Leu Tyr His Lys Leu Asn Glu Leu Phe Arg
    210                 215                 220
Pro Leu Lys Gly Ala Val Gly Thr Pro Gln Pro Ser Pro Gln Gly Met
225                 230                 235                 240
Pro Gly Asn Thr Lys Pro Ser Pro Ser Pro Ala Ala Glu Ser Ala Val
                245                 250                 255
```

<210> 38800
<211> 90
<212> PRT
<213> A.fumigatus

```
<400> 38800
Ser Leu Gly Arg Val Leu Thr Gly Gly Gln Lys Pro Arg Ile Leu Phe
1               5                   10                  15
Ile Ala Ile Thr Arg Leu Phe Tyr Ser Ser Val Ser Thr Lys Lys Gln
            20                  25                  30
Tyr Lys Gly Ser Leu Ser Ser Asn Leu Leu Ile Tyr Asn Lys Leu Ala
        35                  40                  45
Pro Ala Gly His Arg Val Glu Pro Ala Val Phe Asn Thr Lys Arg Trp
    50                  55                  60
Lys Gly Leu Arg Asp Leu Phe Gly Ala Ile Gly Thr Val Leu Ser Leu
65                  70                  75                  80
Ser Cys Val Cys Gly Ser Gly Thr Trp Asp
                85                  90
```

<210> 38801
<211> 266
<212> PRT
<213> A.fumigatus

<400> 38801
Met Ser Cys Val Leu Phe Leu Phe Tyr Arg Arg Ser Pro Pro Val Ala
1 5 10 15
Thr Thr Ile Ala Asp Ile Thr Ala Thr Ser Ala Ser Ala Pro Pro Ser
20 25 30
Ser Leu Tyr Ser Ser Ala Pro Arg Ile Ser Thr Gln Ser Val Arg Phe
35 40 45
Ser Trp Ser Gly Ser Gln Ser Pro Ser Val Tyr Ser Val Thr Ser Val
50 55 60
Ser Pro His Lys Gln Phe Ala Arg Arg Arg Pro His Pro His Leu Leu
65 70 75 80
Trp Arg Trp Thr Ser Val Ala Thr Pro Val Ile His Ser Asn Pro Gly
85 90 95
Ala Asn Asn Arg Leu Leu Ser Ser Leu Ala Pro Phe Ala Arg Ser Arg
100 105 110
Pro Ser Leu Ser Gln Pro Ala Ser Arg Lys Ser Met Asp Leu Asn Gly
115 120 125
Glu Thr Ser Thr Lys Arg Lys Arg Ser Ser Val Ala Ala Pro Ala Glu
130 135 140
Arg Pro Ala Lys His Leu Lys Pro Gly Asn Ser Thr Leu Thr Pro Gly
145 150 155 160
Asp Ala Thr Pro Ala Asn Gly Thr Val Tyr Asn Val Glu Asp Glu Glu
165 170 175
Asp Thr Gly Arg Val Met Pro Ile Gly Pro Ala Gln Ala Asp Ser Pro
180 185 190
Glu Trp Gln Ala Thr Ile Glu Lys Val Val Lys Ser Val Val Ser Ile
195 200 205
His Phe Cys Gln Thr Cys Ser Phe Asp Thr Asp Leu Ser Met Ser Ser
210 215 220
Gln Ala Thr Gly Phe Val Val Asp Ala Glu Arg Gly Tyr Ile Leu Thr
225 230 235 240
Asn Arg His Val Val Cys Ala Gly Pro Phe Trp Gly Tyr Cys Ile Phe
245 250 255
Asp Asn His Glu Glu Val Ser Arg Val Leu
260 265

<210> 38802
<211> 95
<212> PRT
<213> A.fumigatus

<400> 38802
Gly Lys Met Asp Pro Asn Ala Thr Gly Tyr Pro Ser Leu Gln Gln Gln
1 5 10 15
Gln Gln Gln Gln Gln His Asn Ala Gly Tyr Pro Val Thr Ser Gln Ser
20 25 30
Pro His Ala Gln Gln Phe Pro Phe Tyr Pro Asn Ala Met Pro Thr Ser
35 40 45
Ser Phe Pro Gln Ser Lys Thr Pro Val Gln Gln Pro His Gln Gln His
50 55 60
Ser Phe Gly Pro Val Pro Leu Gln Pro Gly Gly Pro Gly Gly Ala Met
65 70 75 80
Met Pro Ser Gly Thr Leu Thr Cys Asp Pro Leu Gly Arg Phe Phe
85 90 95

<210> 38803

<211> 154
<212> PRT
<213> A.fumigatus

<400> 38803
His Arg Thr Trp Leu Arg Ser Leu Arg Thr Ala Cys Phe Gln His Asn
1 5 10 15
Ser Asn Asn Ser Asn Ile Ile Asn Asn Asn Asn Asn Asn Asn Asn Ala
20 25 30
Leu Pro Ser Ser Gln Ile Asn Ser Lys Asp Pro Ser Gln Gln Gln His
35 40 45
Arg Val Arg Arg Gln Gln Arg Glu Arg Arg Leu Val Ser Gln Pro Ser
50 55 60
Trp Ile Ser Thr Pro Ser Cys Cys Lys Arg Ser Ser Ile Cys Arg Arg
65 70 75 80
Leu Val Arg Leu Glu Asp Leu Pro Ala Asn Lys His Arg Lys Arg Thr
85 90 95
Ile His His Gln Arg Pro Thr Arg Arg Pro Thr Gln Pro Arg Ala Arg
100 105 110
His Lys Ser Pro Val Ser Ser Met Leu Ser Val Cys Ala Val Ser Arg
115 120 125
Pro Ile Trp Arg Thr Trp Arg Leu Leu Pro Ile Glu Arg Arg Ser Arg
130 135 140
Val Val Trp Leu Pro Leu Pro Leu Pro Ser
145 150

<210> 38804
<211> 267
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (259)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38804
Cys Asp Val His Pro Val Tyr Arg Asp Pro Val His Asp Phe Gly Ile
1 5 10 15
Leu Lys Phe Asn Pro Lys Ala Ile Arg Tyr Met Glu Leu Thr Glu Leu
20 25 30
Lys Leu Arg Pro Glu Ala Ala Arg Val Gly Cys Glu Ile Arg Val Val
35 40 45
Gly Asn Asp Ala Gly Glu Lys Leu Ser Ile Leu Ser Gly Val Ile Ser
50 55 60
Arg Leu Asp Arg Asn Ala Pro Glu Tyr Gly Asp Gly Tyr Cys Asp Phe
65 70 75 80
Asn Thr Asn Tyr Ile Gln Ala Ala Ala Ala Ala Ser Gly Gly Ser Ser
85 90 95
Gly Ser Pro Val Val Asn Ile Asp Gly His Ala Ile Ala Leu Gln Ala
100 105 110
Gly Gly Arg Ala Asp Gly Ala Ala Thr Asp Tyr Phe Leu Pro Leu Asp
115 120 125
Arg Pro Leu Arg Ala Leu Glu Cys Ile Arg Arg Gly Glu Pro Val Thr
130 135 140
Arg Gly Thr Ile Gln Thr Gln Trp Ile Leu Lys Pro Phe Asp Glu Cys

```
145                 150                 155                 160
Arg Arg Leu Gly Leu Thr Pro Glu Trp Asp Ala Ala Val Arg Lys Ala
                165                 170                 175
Ser Pro His Glu Thr Ser Met Leu Val Ala Glu Ile Ile Leu Pro Glu
            180                 185                 190
Gly Pro Ala Asp Gly Lys Leu Glu Glu Arg Tyr Val Leu Leu Gln Val
        195                 200                 205
Asn Gly Glu Leu Leu Thr Gln Phe Ile Arg Leu Asp Asp Ile Pro Asp
    210                 215                 220
Ser Ser Val Arg Glu Asp Gly Thr Phe Ala Gly Ser Asn Arg Arg Ser
225                 230                 235                 240
Thr Met Leu Lys Val Gln Cys Glu Gly Gly Pro Ile Cys Leu Ala Ile
                245                 250                 255
Thr Pro Xaa Pro Phe Cys Ser Arg Tyr Pro Gly
            260                 265
```

<210> 38805
<211> 63
<212> PRT
<213> A.fumigatus

<400> 38805

```
Leu Lys Val Asp Phe Glu Glu Arg Ala Thr Gly Thr Tyr Arg Leu Gln
1               5                   10                  15
Leu Glu Arg Ile Val Val Arg Ile Glu Leu Leu Phe Tyr Pro Gly Leu
            20                  25                  30
Leu His Val Lys Gln His Lys Ser His Asp Tyr Cys His Gly Asn Val
        35                  40                  45
Thr Ser Gly Thr Asp Pro Lys Gln Pro Gly Pro Leu Val Glu His
    50                  55                  60
```

<210> 38806
<211> 67
<212> PRT
<213> A.fumigatus

<400> 38806

```
Lys Ser Lys Tyr Arg Leu Asp Pro Thr Lys Ala Gln Tyr Cys Met Asp
1               5                   10                  15
Trp Glu Ile Leu Ser Asn Ala Pro Pro Phe Val Arg Gly Leu Ser Asn
            20                  25                  30
Gln Ala Thr Gly Asn Leu Pro His Gly Phe Ser Tyr Leu Gln Leu Glu
        35                  40                  45
Glu Gln Val Gly His Asn Arg Phe Leu Leu Lys Ser Arg Trp Glu Asp
    50                  55                  60
Ile Gly Arg
65
```

<210> 38807
<211> 61
<212> PRT
<213> A.fumigatus

<400> 38807

```
Leu Asn Leu Val Leu Thr Ile Lys Trp Pro Leu Thr Val Ala Phe Glu
1               5                   10                  15
```

```
Asn Ile Ser Gly Ser Pro Met Ala Asn Val Gln Gly Glu Asp Tyr Ser
            20                  25                  30
Asn Leu Arg Lys Phe Tyr Phe Leu Leu Glu Ala Ala Ile Thr Pro Asp
        35                  40                  45
Leu Tyr His Thr Gln Ile His Thr Ala Thr Cys Ser Arg
    50                  55                  60
```

<210> 38808
<211> 65
<212> PRT
<213> A.fumigatus

<400> 38808

```
Ser Leu Asn His Ala Gly Ser Thr Ser Thr Ile Asp Leu Ala Val Thr
1               5                   10                  15
Asn Cys Ala Thr Lys Leu Ile Lys Cys His Leu Tyr His Glu Asn Tyr
            20                  25                  30
Gly Ser Asp His Arg Ala Ala Tyr Ser Glu Trp Ser Leu Gln Pro Ser
        35                  40                  45
Asn Tyr Asn Gly Lys Glu Gly Ser Gly Asn Phe Phe Tyr Thr Val Asn
    50                  55                  60
Arg
65
```

<210> 38809
<211> 61
<212> PRT
<213> A.fumigatus

<400> 38809

```
Tyr Asn Thr Ser Lys Glu Thr Thr Leu Leu Leu Ala Gly Asn Phe Asn
1               5                   10                  15
Arg His His Pro Ala Trp Glu Thr Asn Ser Val Thr Pro Arg Ser Met
            20                  25                  30
Leu Cys Ala Glu Glu Leu Val Asn Phe Phe Phe Gln Gln Leu Ala Ser
        35                  40                  45
Asn Gly Ala Phe His Trp Gly Tyr Gln His Thr Ser Leu
    50                  55                  60
```

<210> 38810
<211> 615
<212> PRT
<213> A.fumigatus

<400> 38810

```
Asp Tyr Cys Thr Phe Thr His Val Thr Cys Leu Gly Ser Asp Asn Arg
1               5                   10                  15
Ala Thr Ile Asp Pro Leu Ala Arg Ser Arg Asn Met Ala Ala Thr Ser
            20                  25                  30
Pro Leu Ser Pro Val Leu Asp Phe Asn Arg Pro Gly His Thr Glu Thr
        35                  40                  45
Tyr Asp Leu Phe Ser Ser His Leu Pro Thr Pro Gly Leu Asn Gln Thr
    50                  55                  60
Met Tyr Ala Pro Tyr Ala Pro Tyr Glu Ile Asp Val Lys Thr Glu Arg
65                  70                  75                  80
Gln Thr Phe Ile Asn Asp Val Pro Leu Arg His Asp Ser Ser Ile Ser
```

```
                85                  90                  95
Thr Phe Ser Thr Phe Thr Ala Pro Gln Leu Ser Ala Pro Leu Pro Thr
            100                 105                 110
Phe Pro Ser Glu Asp Trp Leu Gln Asp Glu Tyr Phe Ser Gln Ala Pro
        115                 120                 125
Asn Leu Ser Gly Ile Asp Pro Ala Ile Cys Glu Gln Asn Phe Gly Gln
    130                 135                 140
Thr Tyr Thr Thr Leu Gln Ser Asn Ile Pro Val Ser Asp His Asp Arg
145                 150                 155                 160
Pro Leu Leu Asp His Phe Ile His Asn Val Leu Arg Ile Ile Phe Pro
                165                 170                 175
Val Leu Glu Ala His Gln Arg Gly His Thr Arg Ala Gln Ala Ile Leu
            180                 185                 190
Gln Ala Leu Glu Thr Asn Lys Cys Tyr Leu His Cys Cys Leu Ser Val
        195                 200                 205
Ala Ala Ile His Leu Lys Thr Thr Glu Gly Phe Val Gly Glu Gln Ile
    210                 215                 220
Asp His Asp Ile Met Arg His Arg Phe Glu Ala Val Ser His Leu Cys
225                 230                 235                 240
Gln Ala Leu Ser Glu Asp Ile Asn His Glu Glu Ile Leu Asp Ala Thr
                245                 250                 255
Leu Ala Met Ile Phe Phe His Cys Ser Val Gly Pro Ala Asp Asp Tyr
            260                 265                 270
Leu Pro Asp Ile Pro Trp Phe Asp His Phe Gln Ala Ala Ser Asn Leu
        275                 280                 285
Val Asn Arg Leu Gly Leu Pro Thr Ala Val Pro Glu Gly Asn Pro Tyr
    290                 295                 300
Val Leu Pro Pro Phe Ser Met Thr Leu Thr Ser Trp Ile Asp Ile Leu
305                 310                 315                 320
Gly Ser Thr Met Gln Gly Arg Thr Pro Gln Phe Ala His Thr Tyr Arg
                325                 330                 335
Ala Lys His Leu Ser Gly Ser Ser Ser Gly Leu Arg Glu Leu Met Gly
            340                 345                 350
Cys Asp Asp Arg Val Met Tyr Leu Ile Ser Glu Ile Thr Cys Leu Asp
        355                 360                 365
Ala Leu Lys Thr Glu Gly Arg Ile Asp Ala Met Ala Val Cys Ser His
    370                 375                 380
Val Ser Ala Leu Gly Arg Gln Leu Glu Phe Thr Glu Pro Val Asp Gln
385                 390                 395                 400
Thr Leu Glu His Pro Phe Ser Pro Thr Thr Gly Ala Ile Arg Pro Glu
                405                 410                 415
Ile Leu Thr Lys Asn Met Thr Thr Val Phe Arg Ile Ala Ala Arg Ile
            420                 425                 430
Tyr Leu Cys Ser Leu Val Pro Gly Phe Asp Arg Asn Gln Pro Ser Asn
        435                 440                 445
Leu Asn Leu Val Ala Ala Val Ala Asn Thr Leu Asn Tyr Ile Pro Ser
    450                 455                 460
Gly Pro Asn Gly Phe Asp Arg Ser Leu Val Trp Pro Leu Leu Ile Thr
465                 470                 475                 480
Gly Ala Phe Ser Ala Pro Thr Ser Gln Phe Arg Ala Val Leu Ala Glu
                485                 490                 495
Arg Ala Ser Leu Leu Gly Asp His Ala Asp Leu Gly Ser Phe Gly Arg
            500                 505                 510
Met Tyr Arg Leu Leu Gln Glu Val Trp Arg Leu Thr Asp Asp Pro Ala
        515                 520                 525
Asp Ser Tyr Tyr Thr Pro Gly Gly Asn Gly Ala Ile Leu Ala Ser Ala
```

```
    530                 535                 540
Gly Ser Pro Gly Pro Lys Asn Glu Arg Val Gly Ile Ser Glu Arg Asn
545                 550                 555                 560
Arg Thr Gly Ala Arg Leu Arg Lys Asn Lys Lys Gln Arg Ala Thr Trp
                565                 570                 575
Arg Asp Leu Arg His Pro Glu Gly Leu Pro Ile Asn Cys Trp Ile Lys
            580                 585                 590
Met Gly Lys Gly Gly Ile Leu Gly Val Pro Phe Trp Ser Ser Pro Glu
        595                 600                 605
Asn Glu Thr Ser Gly Gly Pro
    610                 615
```

<210> 38811
<211> 125
<212> PRT
<213> A.fumigatus

<400> 38811

```
Gly His Lys Arg Arg Pro Arg Ser Cys Thr Ser Val Leu Asp Leu Val
1               5                   10                  15
Gly Tyr Ser Val Gly Ile Ile Phe Leu Pro Phe Leu Phe Gly Arg Ile
            20                  25                  30
Val Leu Leu Thr Gly Leu Gly Cys Phe Thr Cys Arg Leu Arg Arg Lys
        35                  40                  45
Lys Cys Asp Glu Lys His Pro Ala Cys Gly Ala Cys Ser Asn Leu Cys
    50                  55                  60
Val Lys Cys Glu Tyr Lys Arg Pro Ile Trp Trp Gly Asn Ala Glu Gln
65                  70                  75                  80
Arg Arg Ile Gln Lys Glu Arg Ile Lys Asn Lys Ile Lys Gln Thr Lys
                85                  90                  95
Met Asn Glu Arg Asn Gly Ser Ala Thr Gly Arg Thr Thr Ala Pro Ser
            100                 105                 110
Leu Thr Leu Leu Val Leu Ala Leu Thr Ile Gly Leu Arg
        115                 120                 125
```

<210> 38812
<211> 75
<212> PRT
<213> A.fumigatus

<400> 38812

```
Ser Phe Ile Ile Gly Lys Val Thr Ser Ser Leu His Thr Phe Ser Thr
1               5                   10                  15
Glu Tyr Arg Thr Ile Thr Gln Pro Phe Phe Phe Phe Phe Phe Cys Trp
            20                  25                  30
Val Ile Ala Leu Ala Lys Tyr Leu Leu Phe Ala Ser Ile Asn Gln Glu
        35                  40                  45
Glu Pro Thr Leu Glu Cys Gln His Thr Ile Cys Phe Asp Ser Ala Ile
    50                  55                  60
Leu Arg Tyr Thr Lys Ser Ser Leu Thr Gln Lys
65                  70                  75
```

<210> 38813
<211> 318
<212> PRT
<213> A.fumigatus

<400> 38813
His Cys Pro Gly Pro Glu Ser Glu Gln Ala Arg Lys Gly Asp Ala Cys
1 5 10 15
Ala Gly Cys Pro Asn Gln Ala Ile Cys Ala Ser Cys Pro Glu Gly Ala
20 25 30
Arg Ser Arg His Pro His His His Arg Thr Ser Leu Ser Asn Pro Thr
35 40 45
Gln Asp Pro Cys Thr Ile Arg Ala Lys Ala Val Ser Ala Asn Pro His
50 55 60
Ser Pro Arg Ser Leu Ala His Ala Phe Ala Ser Asn Pro Glu Phe Thr
65 70 75 80
Val Gly Leu Cys Asp Thr Asp Ile Cys Gly Pro Ser Ile Pro Lys Met
85 90 95
Met Gly Val Glu Ser Glu Thr Ile His Val Ser Asn Ala Gly Trp Ser
100 105 110
Pro Val Trp Val Thr Asp Asn Leu Ser Val Met Ser Ile Gln Phe Met
115 120 125
Leu Pro Asn Arg Asp Asp Ala Ile Ile Trp Arg Gly Pro Lys Lys Asn
130 135 140
Gly Met Ile Lys Gln Phe Leu Lys Asp Val Asp Trp Gly Asp Leu Asp
145 150 155 160
Tyr Leu Ile Val Asp Thr Pro Pro Gly Thr Ser Asp Glu His Leu Ser
165 170 175
Val Asn Ser Leu Leu Lys Glu Ser Gly Val Asp Gly Ala Val Ile Val
180 185 190
Thr Thr Pro Gln Glu Val Ser Leu Leu Asp Val Arg Lys Glu Ile Asp
195 200 205
Phe Cys Arg Lys Ala Gly Ile Arg Ile Leu Gly Leu Val Glu Asn Met
210 215 220
Arg Gly Phe Val Cys Pro Gly Cys Ser Asn Thr Ser Glu Ile Phe Arg
225 230 235 240
Ala Thr Thr Gly Gly Gly Lys Arg Leu Ala Lys Lys Met Gly Ile Pro
245 250 255
Phe Leu Gly Ser Val Pro Leu Asp Pro Arg Val Gly Met Ala Cys Asp
260 265 270
Tyr Gly Glu Ser Phe Val Asp Asn Phe Pro Asp Ser Pro Ala Ser Lys
275 280 285
Ala Ile Lys Gln Val Val Arg Ser Val Gly Glu Met Leu Gly Glu Asp
290 295 300
Pro Asn Thr Val Leu Pro Pro Asp Glu Asn Asp Met Val Glu
305 310 315

<210> 38814
<211> 144
<212> PRT
<213> A.fumigatus

<400> 38814
Val Glu Asp Trp Lys Tyr Arg Gln Tyr Arg Ala Asn Met His Ser Leu
1 5 10 15
Gln Ser Phe Leu Phe Leu Leu Leu Leu Gly Tyr Gly Val Phe Ala Ala
20 25 30
Pro Thr Ser Pro Gln Ala Gln Ser Gln Gly Arg Ser Phe Lys Val Glu
35 40 45
Arg Ile Lys Arg Gly Asn Ser Ile His Gly Pro Thr Ala Leu Arg Arg

```
    50                  55                  60
Ala Tyr Arg Lys Phe Gly Ile Val Pro Thr Thr Phe Gly Val Asp Leu
65                  70                  75                  80
Ser Asp Phe Val Pro Phe Asn Thr Thr Ser Ile Ser Gly Thr Ala Ala
                85                  90                  95
Asn Leu Val Thr Asp Val Gln Glu Pro Glu Gln Thr Gly Ala Val Ser
            100                 105                 110
Ala Gln Ser Val Gln Asn Asp Ala Ala Phe Val Ser Pro Val Thr Ile
        115                 120                 125
Gly Gly Gln Lys Ile Val Met Asn Phe Asp Thr Gly Ser Ala Asp Leu
    130                 135                 140
```

<210> 38815
<211> 61
<212> PRT
<213> A.fumigatus

<400> 38815

```
Leu Ile Tyr Leu Ile Ala Gly Arg Ser Asp Thr Ala Val Thr Val Pro
1               5                   10                  15
Glu Asn Ile Thr Pro Arg Pro Ile Ala Thr Lys Ser Leu Ser Ser Asp
            20                  25                  30
Ile Gly Leu Ser Ser Ser Asp Pro Pro Leu Phe Ile Lys Thr Ser Phe
        35                  40                  45
Val Gln Ile Asn Ser Thr His Leu Leu Asp Leu Gly Ile
    50                  55                  60
```

<210> 38816
<211> 217
<212> PRT
<213> A.fumigatus

<400> 38816

```
Ala Asp Gln Ala Trp Lys Leu His Ser Arg Ser Asp Cys Ser Thr Gln
1               5                   10                  15
Ser Leu Ser Glu Val Trp Tyr Ser Ser Tyr Asp Leu Trp Arg Arg Ser
            20                  25                  30
Val Gly Leu Cys Ala Phe Gln His Asp Ile Tyr Leu Arg His Ser Cys
        35                  40                  45
Gln Ser Arg Asn Arg Cys Pro Gly Ala Arg Ala Asp Arg Cys Ser Gln
    50                  55                  60
Cys Ala Ile Cys Pro Glu Arg Cys Gly Phe Arg Gln Pro Cys Asp Asp
65                  70                  75                  80
Arg Trp Ala Glu Asn Ser Asp Glu Leu Arg His Arg Leu Ser Arg Leu
                85                  90                  95
Val Ser Ser Ser Glu Leu Leu Tyr Gln His Ser Leu Leu Thr Gly Asp
            100                 105                 110
Phe Ala Ser Trp Val Met Asn Thr Glu Leu Pro Ala Ser Ala Gln Val
        115                 120                 125
Gly His Thr Val Phe Asp Pro Ser Lys Ser Ser Thr Phe Lys Lys Met
    130                 135                 140
Glu Gly Ala Thr Phe Glu Ile Lys Tyr Gly Asp Ser Ser Phe Ala Asn
145                 150                 155                 160
Gly Gly Val Gly Thr Asp Thr Val Asp Ile Gly Gly Ala Thr Val Thr
                165                 170                 175
Gly Gln Ala Ile Gly Ile Pro Thr Ser Val Ser Asn Ser Phe Val Ala
```

```
            180                 185                 190
Asp Thr Tyr Ser Asn Gly Leu Val Gly Leu Gly Val Phe His Thr Glu
        195                 200                 205
Ala Gly Arg Ile Arg Ala Arg His Pro
    210                 215
```

<210> 38817
<211> 193
<212> PRT
<213> A.fumigatus

<400> 38817

```
Pro Pro Lys Met Gly Arg Thr Ser Trp Pro Arg Phe Pro Val Gly Ile
1               5                  10                  15
Ser Ser Leu Asp Gly Thr Gly Pro Arg Pro Arg Trp Pro Ser Trp Thr
            20                  25                  30
Ser Val Gly Ile Ser Ser Cys Leu Arg Glu Ala Gly Arg Trp Leu Thr
        35                  40                  45
Pro Ser Ala Val Lys Ser His Ser Thr Thr Pro Val Ser Asp Val Leu
    50                  55                  60
Ala Trp Cys Ala Asp Asp Ser Asn Pro Val Arg Ser Glu Tyr Ile Val
65                  70                  75                  80
Leu Glu Pro Ser Val Gly Glu Leu Leu Thr Lys Ala Trp Asp Thr Leu
                85                  90                  95
Ala Glu His Glu Arg Val Lys Leu Ile Arg Asn Phe Ala Ser Leu Glu
            100                 105                 110
Ser Lys Leu Ala Ala Thr Gln Phe Pro Gly Tyr Gly Ala Leu Tyr Leu
        115                 120                 125
Arg Asn Ala Leu Pro Pro Ala Leu Gln Gln Pro Gly Arg Thr Ile Asp
    130                 135                 140
Val Asp Asp Thr Tyr Cys Leu Gly Pro Met Tyr His Gly Ser Trp Pro
145                 150                 155                 160
Gly Gly Phe Ala Ala Asn Ala Asp Asp Tyr Ala Lys Tyr Ser Gly Pro
                165                 170                 175
Cys Pro Ser Ser Ser Ala Ile Cys Phe Gly Trp Ser Ser Thr Glu Gln
            180                 185                 190
Arg
```

<210> 38818
<211> 153
<212> PRT
<213> A.fumigatus

<400> 38818

```
Cys Arg Ser Ser Gln Lys Pro Ser Arg Phe Ala Gly Thr Leu Ser Pro
1               5                  10                  15
Ser Phe Ala Thr Pro Thr Phe Thr Gln Ala Thr Ser Ser Ser Pro Pro
            20                  25                  30
Thr Thr Pro Pro Ser Ser Ser Ala Ser Ser Thr Gly Asn Ser Pro Ala
        35                  40                  45
Ser Phe His Ala Ser Arg Arg Phe Ala Gly Arg Cys Ser Ser Leu Arg
    50                  55                  60
Arg Lys Ala Thr Asn Pro Ala Arg Pro Thr Arg Asn Ala Arg Pro Pro
65                  70                  75                  80
Thr Thr Thr Thr Arg Asn Lys Arg Arg Thr Arg Pro Phe Ala Pro Ser
```

```
                85                  90                  95
Ala Thr Arg Pro Arg Ser Ser Ser Pro Ile Trp Asn Arg Thr Trp Leu
            100                 105                 110
Ser Pro Asn Pro Thr Pro Pro Ser Ala Ala Ser Ser Ser Leu Ala Pro
        115                 120                 125
Ser Pro Thr Ala Thr Gly Phe Cys Pro Tyr Ala Thr Ala Cys Ser Ser
    130                 135                 140
Ser Arg Ser Thr Gly Arg Val Tyr Arg
145                 150
```

<210> 38819
<211> 111
<212> PRT
<213> A.fumigatus

<400> 38819

```
Met Pro Gly Lys Pro Ala Thr Glu Lys Asp Leu Phe Gly Tyr Ser Lys
1               5                   10                  15
Gly Arg Phe Leu Val Asn Glu Gly Tyr Glu Arg Ala Lys Arg Tyr Ser
            20                  25                  30
Pro Phe Asp Ile Arg Glu Leu Cys Arg Met Val Ser Ala Leu Pro Arg
        35                  40                  45
Val Ala Gly Ser Pro Ile Thr Arg Ile Glu Lys Lys Glu Gly Gly Tyr
    50                  55                  60
Asn Lys Ala Leu Leu Met Thr Ala Glu Asn Gly Thr Asn Ile Leu Ala
65                  70                  75                  80
Lys Ile Pro Cys Arg Asn Ile Val Pro Arg Trp Tyr Gly Thr Ala Ser
                85                  90                  95
Glu Val Ala Val Leu Asp Phe Gly Arg Tyr Leu Val Leu Ser Pro
            100                 105                 110
```

<210> 38820
<211> 294
<212> PRT
<213> A.fumigatus

<400> 38820

```
Thr Ala Ile Gly Arg Thr Leu Ala Glu Leu Gly Arg Asp Leu Ala His
1               5                   10                  15
Gln Gly Ile Cys Gln Val Arg Asn Tyr Lys Thr Ser Tyr Ala Gly Arg
            20                  25                  30
Gly Pro His Tyr Gly Thr Pro Glu Glu His Ile Arg Val Leu Glu Thr
        35                  40                  45
Val Met Gln Val Met Pro Ile Leu Thr Glu Ala Val Pro Ile Arg Arg
    50                  55                  60
His Thr Glu Pro Val Leu Arg His Pro Asp Phe His Pro Gly Asn Ile
65                  70                  75                  80
Phe Val Ser Ala Asp Asp Pro Thr Val Ile Val Gly Val Ile Asp Trp
                85                  90                  95
Gln Phe Thr Cys Ile Leu Pro Arg Phe Thr Gln Val Arg Trp Pro Leu
            100                 105                 110
Phe Leu Ala Pro Pro Glu Gly Tyr Gln Pro Gly Thr Pro Asn Pro Glu
        115                 120                 125
Arg Pro Pro Thr Asp Asn Asp Asn Thr Gln Gln Ala Gln Asp Ala Ala
    130                 135                 140
Leu Arg Ala Lys Cys Tyr Glu Ala Ala Leu Leu Lys Ser His Leu Glu
```

```
145                 150                 155                 160
Ser Tyr Leu Ala Leu Thr Glu Pro Asp Ala Ala Ile Ser Arg Leu Phe
                165                 170                 175
Ile Ser Cys Pro Phe Thr Tyr Arg Asp Gly Ile Leu Pro Val Arg Asp
            180                 185                 190
Cys Leu Leu Lys Leu Ser Gln His Trp Ala Arg Leu Gln Val Ser Gln
        195                 200                 205
Glu Cys Pro Tyr Arg Phe Thr Ala Ala Glu Val Ala Glu His Glu His
    210                 215                 220
Gln Met Ala Glu Tyr Glu Gly Trp Leu Lys Leu Arg Glu His Thr Gln
225                 230                 235                 240
Gln Leu Leu Arg Ser Asn Asp Gly Gly Trp Val Pro Ser Gly Val Asp
                245                 250                 255
Phe Glu Glu Ile Gln Ala Arg His Asp Lys Leu Tyr Arg Arg Phe Val
            260                 265                 270
Lys Thr Lys Met Glu His Met Ser Glu Glu Asp Ala Lys Arg Gln Trp
        275                 280                 285
Phe Phe Arg Glu Arg Gly
    290
```

<210> 38821
<211> 472
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (325)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38821

```
Gly Ser Thr Pro Glu Pro Thr Met Ser His Leu Thr Ile Ala Asn Cys
1               5                   10                  15
Tyr Glu Ile Leu Gly Ile Asn Ser Asp Ala Thr Ile Lys Glu Ile Asn
            20                  25                  30
Thr Ala Tyr Lys Lys Leu Ala Leu Lys His His Pro Asp Lys Thr Gly
        35                  40                  45
Gly Glu Glu Ser Ser His Ile Glu Phe Gln Lys Val Gln Ala Pro Glu
    50                  55                  60
Gln Asp Thr Glu Asp Ser Lys Pro Ile Met Leu Thr Lys Ser Asp His
65                  70                  75                  80
Gln Ile Gln Gln Ala Val Glu Ile Leu Arg Asp Pro Val Arg Arg Lys
                85                  90                  95
Asn His Asp Leu Glu Leu Phe Lys Leu Gly Arg Ile Ser Val His Gly
            100                 105                 110
Thr Asn Ser Pro His Ala Gly Gly Ser His Trp Ser Ala Ser Ala Phe
        115                 120                 125
Lys Arg Tyr Asp Glu Asn Ser Arg Tyr Met Tyr Ser Tyr Glu Gln Ser
    130                 135                 140
Val His Val Ser Pro Gln Lys Gln Glu Ser Lys Glu Asp Met Glu Trp
145                 150                 155                 160
Val Glu Gln Met Leu Lys Ala Glu Glu Glu Phe Arg Arg Asn Leu Ala
                165                 170                 175
Arg Gln Gln Glu Val Glu Gln Met Arg Ala Gln Met Glu Ala Glu Arg
            180                 185                 190
Val Gly Gln Glu Glu Asp Cys Lys Leu Gln Ser Thr Trp Glu Asp His
```

```
        195                 200                 205
Pro Ser Glu Arg Leu Glu Gln Asp Ala His Thr Glu Asp Val Leu Glu
    210                 215                 220
Glu Glu Ser Asp Tyr Phe Glu Ser Tyr Thr Glu Ser Ile Thr Arg Lys
225                 230                 235                 240
Glu Gln Asp Ile Trp Asp Lys Cys Ala Gln Arg Ala Pro Arg Ser Thr
                245                 250                 255
Asp Tyr Thr Glu Glu Glu Tyr Tyr Gln Asp Met Tyr Gln Lys Gly Glu
            260                 265                 270
Lys Gln Pro Glu Leu Tyr Asp Glu Asp Glu Asp Pro Glu Ile Asp Asp
        275                 280                 285
Asp Asp Asp Glu Glu Pro Pro His Leu His Gly Glu Glu Val Glu Asp
    290                 295                 300
Gln Pro Glu Leu Tyr Glu Gly Val Asp Gly His Glu Asn Val Phe Pro
305                 310                 315                 320
Arg Arg Ser Cys Xaa Ser Pro Pro Ala Leu Arg Lys Arg Gly His Asp
                325                 330                 335
Phe Asp Asp Tyr Ser Leu Cys Pro Asp Asn Gln Leu Ser Glu Tyr Ile
            340                 345                 350
Pro Ser Val Cys Gly Ser Asp Leu Asp Asn Ala Thr Ala Arg Ser Ser
        355                 360                 365
Gly Ser Glu Phe Asn Pro Arg Phe His Met Glu Ser Ile Arg Ala Ala
    370                 375                 380
Cys Ala Asp Leu Tyr Asp Asn Lys Ser Thr Ser Val Glu Glu Ala Gln
385                 390                 395                 400
Lys Thr Asp Asp Asp Thr Ala Thr Leu Tyr Asp Val Ser Glu Ala Asp
                405                 410                 415
Ser Ser His Lys Phe Tyr Ser Thr Asn Pro Tyr Leu Ser Glu Thr Glu
            420                 425                 430
Ser Val Asn Glu Ala Val His Asn Asp Val Asp Glu Gln Val Ser Glu
        435                 440                 445
Gly Val Asp Asn Asp Asp Ser Val Asn Arg Ser Ser Leu His Asp Leu
    450                 455                 460
Leu Ser Pro Phe Val Pro Tyr Leu
465                 470
```

<210> 38822
<211> 205
<212> PRT
<213> A.fumigatus

<400> 38822

```
Asn Arg Trp Ile Arg Asp Ala Asp Leu Phe Gly Ser Thr Ala Pro Pro
1               5                   10                  15
Asn Ala Ala Asn Phe Ala Thr Leu Arg Glu Ile Glu Gly Arg Leu Lys
            20                  25                  30
Ser Ile Lys Asn Ile Glu Lys Ile Thr Asn Thr Met Lys Ile Val Ala
        35                  40                  45
Ser Thr Arg Leu Thr Arg Ala Gln Lys Ala Met Asp Asp Ser Arg Val
    50                  55                  60
Tyr Gly Gln Thr Ser Asn Lys Val Phe Glu Asn Ala Glu Thr Lys Pro
65                  70                  75                  80
Leu Glu Asp Lys Lys Thr Leu Leu Val Val Ala Ser Ser Asp Lys Gly
                85                  90                  95
Leu Cys Gly Gly Ile His Ser Gly Leu Ser Lys Ala Thr Arg Arg Ile
            100                 105                 110
```

```
Leu Gln Glu Asn Pro Asn Ala Asp Val Val Ile Leu Gly Glu Lys Ala
        115                 120                 125
Lys Ala Gln Leu Ser Arg Ser Asn Ala Asp Ala Ile Val Met Ser Phe
    130                 135                 140
Ala Asn Val Cys Lys Asp Ile Pro Thr Phe Ala Asp Ala Gln Val Ile
145                 150                 155                 160
Ala Asp Gln Ile Ala Gln Leu Pro Thr Asp Tyr Ala Ser Val Lys Ile
                165                 170                 175
Ile Tyr Asn Lys Phe Ile Asn Ala Gln Ser Tyr Glu Pro Ser Thr Val
            180                 185                 190
Glu Ala Tyr Ser Glu Glu Ala Ile Thr Lys Ser Gly Gln
        195                 200                 205
```

<210> 38823
<211> 133
<212> PRT
<213> A.fumigatus

```
<400> 38823
Lys Gly Glu Ser Thr His Pro Ser Gln Ile Pro Ala Val Ile Trp Ile
1               5                   10                  15
Asp Arg Leu Gly Arg Lys Pro Val Leu Val Val Gly Ala Ile Gly Met
            20                  25                  30
Ala Ala Cys His Phe Val Ile Ala Ala Ile Phe Gly Gln Asn Glu Asn
        35                  40                  45
Gln Trp Asp Thr His Lys Ala Ala Gly Trp Ala Ala Val Ser Met Val
    50                  55                  60
Trp Leu Phe Val Ile His Phe Gly Tyr Ser Trp Gly Lys Arg Leu Pro
65                  70                  75                  80
Thr Ser Glu Glu Asp Ser Thr Thr Asn His Lys Pro Lys Asp His Ala
                85                  90                  95
Pro Gly Ser Ser Leu Leu Arg Phe Gly Arg Ser Val Phe Gly Gln Arg
            100                 105                 110
Ala Pro Arg Trp Val Leu Arg Arg Val Ser Ala Leu Phe Leu Leu Gly
        115                 120                 125
Ile Ile Ser Arg Leu
    130
```

<210> 38824
<211> 84
<212> PRT
<213> A.fumigatus

```
<400> 38824
Val Leu Tyr Phe Ser Leu Ala Ser Tyr Leu Asp Ser Asp Thr Asp Phe
1               5                   10                  15
Phe Phe Ala Pro Asp Trp Met Asn Asn Phe Ile Val Gly Gln Val Thr
            20                  25                  30
Pro Asp Met Leu Gln Asn Ile Arg Tyr Gly Thr Tyr Ile Phe Phe Gly
        35                  40                  45
Ile Ile Thr Phe Leu Gly Ala Gly Phe Ile Ala Phe Met Val Pro Glu
    50                  55                  60
Thr Lys Gln Leu Ser Leu Gly Lys Leu Leu Asp Pro Val Ile Val Glu
65                  70                  75                  80
Phe Arg Val Phe
```

<210> 38825
<211> 63
<212> PRT
<213> A.fumigatus

<400> 38825
Ser Ser Asn Phe Gly Ser Ser Asn Glu Ile Thr Glu Glu Met Asp Val
1 5 10 15
Ile Phe Gly Ser Glu Gly Thr Ala Ile Ser Asp Tyr Glu Arg Gln Ala
20 25 30
Glu Ile Ser Arg Glu Ile Gly Leu Asp Glu Ala Leu Ala Arg Leu Thr
35 40 45
Asn Thr Ala Pro Val Glu Val His Asp Val Glu Ala Lys Gln Thr
50 55 60

<210> 38826
<211> 88
<212> PRT
<213> A.fumigatus

<400> 38826
Ser Gln Pro Asn Arg His Ala Lys Glu Lys Gln Glu Thr Thr Lys Gln
1 5 10 15
Gln Gln Ile Ile Lys Phe Ala Gln Ile Thr Asn Met Phe Lys Arg Asp
20 25 30
Tyr Val Asp Cys Pro Gln His Ile Tyr Tyr Ser Ile Thr Pro Cys Lys
35 40 45
Cys Trp Ser Arg His Arg Pro Arg Asp Ile His Tyr Ala Ile Val Ser
50 55 60
His Cys Ile Ala Ser Ser Leu Gly Lys Ile Val His Thr Glu Glu Arg
65 70 75 80
Leu Arg Ile Ala Ser Gln Phe Pro
85

<210> 38827
<211> 194
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38827
Pro Val Xaa Tyr Lys Met Ala Lys Pro Lys Asp Lys Lys Gly Ser Ser
1 5 10 15
Gly Gly Val Asn Ser His Leu Arg Ala Arg Leu Glu Tyr Leu His Asn
20 25 30
Ala Ala Ser Leu Ile Gln Ser Val Ala Val Ser Ser Lys Lys Leu Asp
35 40 45
Gly Gln Arg Ala Asp Asn Gly Asn Pro Glu Ile Ser Asp Ser Lys Arg
50 55 60
Ile Val Pro His Val Val Arg Pro Asp Ile Ala Ala Gln Lys Gln Ser
65 70 75 80

```
Phe Ala Thr Gly Pro Ser Asn Asp Thr Asp Arg Leu Ser Gln Leu Ala
                85                  90                  95
Arg Val Tyr Val Ser His Leu Arg Gly Val Ser Leu Lys Ser Gln Leu
            100                 105                 110
Arg Leu Pro Val Glu Val Lys His Ser Phe Cys Lys Arg Cys Asp Thr
        115                 120                 125
Leu Leu Val Pro Asn Val Asn Cys Thr His Glu Ile Arg Asn Asp Ser
    130                 135                 140
His Gly Arg Arg Lys Pro Trp Ala Asp Val Leu Val Ile Arg Cys Thr
145                 150                 155                 160
Thr Cys Gly Thr Glu Lys Arg Phe Pro Gln Thr Glu Lys Arg Ser Lys
                165                 170                 175
Lys Leu Ala Glu Arg Arg Lys Glu Lys Ala Gln Ala Glu Lys Pro Asp
            180                 185                 190
Val Lys
```

<210> 38828
<211> 95
<212> PRT
<213> A.fumigatus

<400> 38828

```
Ser Thr Pro Pro Tyr Leu Ala Val Leu Pro Thr Met Ser His Glu Glu
1               5                   10                  15
Asp Leu Ile Asp Tyr Ser Asp Glu Glu Leu Leu Thr Thr Asp Ala Ala
            20                  25                  30
Ala Thr Thr Ser Ala Pro Ala Ala Asn Gly Ala Gln Asp Asn Lys Gly
        35                  40                  45
Asp Leu Thr Val Ser Gly Gly Arg Pro Asp Lys Lys Gly Ser Tyr Val
    50                  55                  60
Gly Ile His Ser Thr Gly Phe Arg Asp Phe Leu Leu Lys Gly Glu Leu
65                  70                  75                  80
Leu Arg Ala Ile Thr Asp Cys Gly Phe Gln His Pro Ser Glu Gly
                85                  90                  95
```

<210> 38829
<211> 177
<212> PRT
<213> A.fumigatus

<400> 38829

```
His Thr Ala Pro Pro Phe Thr Val Gln Gln Val Cys Ile Pro Thr Ala
1               5                   10                  15
Ile Leu Asn Val Asp Val Leu Cys Gln Ala Lys Ser Gly Leu Gly Lys
            20                  25                  30
Thr Ala Val Phe Val Leu Thr Thr Leu His Gln Leu Glu Pro Val Pro
        35                  40                  45
Gly Glu Cys Ser Val Leu Val Met Cys His Thr Arg Glu Leu Ala Tyr
    50                  55                  60
Gln Ile Lys Asn Glu Tyr Ala Arg Phe Ser Lys Tyr Leu Pro Asp Val
65                  70                  75                  80
Lys Thr Ala Val Phe Tyr Gly Gly Thr Pro Ile Gln Lys Asp Ile Glu
                85                  90                  95
Val Leu Ser Asn Lys Glu Ser Tyr Pro Asn Ile Val Val Gly Thr Pro
            100                 105                 110
```

```
Gly Arg Leu Asn Ala Leu Val Arg Glu Lys Lys Leu Ser Leu Arg Asn
        115                 120                 125
Val Lys Ala Phe Val Leu Asp Glu Cys Asp Lys Met Leu Asp Gln Ile
    130                 135                 140
Gly Lys Gln Ala Gln Ile Ala Arg Thr Glu Val Pro Tyr Leu Arg Leu
145                 150                 155                 160
Ala Arg His Ala Pro Gly Cys Pro Gly Asp Phe Pro Cys His Pro Arg
                165                 170                 175
Arg
```

<210> 38830
<211> 108
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (10)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38830

```
Lys Met Gly Lys Gly Ser Glu Thr Ser Xaa Gln Lys Asn Val Leu Ser
1               5                   10                  15
Cys Arg Ser Leu Glu Trp Ser Ser His Trp Phe Ala Gly Leu Ser Ser
            20                  25                  30
Gly Ser Lys Ile Lys Leu Val Val Trp Asn Cys Arg Ser Ser Phe Ala
        35                  40                  45
Phe Ser Thr Phe Val Tyr Arg Ile Asp Tyr Asp Leu Gly Thr Thr Arg
    50                  55                  60
Leu Ile Ala Asn Cys Tyr Leu Asn Ile Ile Lys Asp His Leu Asn Thr
65                  70                  75                  80
Tyr Lys Val Gly Ser Asn Leu Glu Tyr Ser Cys Asn Ile Tyr Gln Ser
                85                  90                  95
Ser Trp Val Ile Ser Leu Ala Arg Ile Ile Ser Thr
            100                 105
```

<210> 38831
<211> 95
<212> PRT
<213> A.fumigatus

<400> 38831

```
Ser Arg Arg Val Leu Pro Pro Met Thr Gly Gln Phe Ser Ser Leu Cys
1               5                   10                  15
Arg Ala Lys Ser Val Ser Val Trp Asp Thr Ile Ala Arg Pro Thr Cys
            20                  25                  30
Val Leu Ala Lys Pro Val Val Asp Ala Gly Ser Asn Ala Leu Tyr Ala
        35                  40                  45
Pro Phe Ser Asn Asp Ser Gly Met Asp Gly Gln Cys Asp Thr Asp Ala
    50                  55                  60
Phe Phe Val Phe Gln Val Leu Trp Ile Glu Tyr Lys Ser Asn Ile Pro
65                  70                  75                  80
Leu Arg Leu Leu Gln Ser Ser Lys Ser Ala Phe Leu Leu Gln Ser
                85                  90                  95
```

<210> 38832
<211> 153
<212> PRT
<213> A.fumigatus

<400> 38832
Arg Arg Ser Cys Trp Met Asn Val Ile Arg Cys Leu Ile Arg Ser Val
1 5 10 15
Ser Lys Arg Lys Ser Leu Val Arg Lys Ser Leu Thr Tyr Val Ser Pro
20 25 30
Asp Met Arg Arg Asp Val Gln Glu Ile Phe Arg Ala Thr Pro Ala Asp
35 40 45
Lys Gln Val Met Met Phe Ser Ala Thr Leu Ser Gln Glu Ile Arg Pro
50 55 60
Ile Cys Lys Lys Phe Met Arg Asn Pro Leu Glu Val Tyr Val Asp Asp
65 70 75 80
Asp Thr Lys Leu Thr Leu His Gly Leu Gln Gln Tyr Tyr Ile Lys Leu
85 90 95
Ser Glu Ser Glu Lys Asn Arg Lys Leu Asn Glu Leu Leu Asp Ser Leu
100 105 110
Glu Phe Asn Gln Val Ile Ile Phe Val Lys Ser Thr Leu Arg Ala Asn
115 120 125
Glu Leu Asp Lys Leu Leu Arg Glu Cys Asn Phe Pro Ser Ile Ala Val
130 135 140
His Ser Gly Val Ser Gln Glu Glu Arg
145 150

<210> 38833
<211> 103
<212> PRT
<213> A.fumigatus

<400> 38833
Phe Met Phe Ser Ile Lys Arg Tyr Lys Glu Phe Lys Glu Phe Asn Lys
1 5 10 15
Arg Ile Cys Val Ala Thr Asp Val Phe Gly Arg Gly Ile Asp Ile Glu
20 25 30
Arg Ile Asn Leu Ala Ile Asn Tyr Asp Leu Pro Ala Asp Ala Asp Ser
35 40 45
Tyr Leu His Arg Val Gly Arg Ala Gly Arg Phe Gly Thr Lys Gly Leu
50 55 60
Ser Ile Ser Phe Val Ser Ser Glu Glu Asp Glu Lys Val Leu Lys Glu
65 70 75 80
Ile Glu Lys Arg Phe Glu Val Ala Leu Pro Tyr Val Gln Phe Ser Pro
85 90 95
Gly Leu Met Leu Cys Ser Asp
100

<210> 38834
<211> 192
<212> PRT
<213> A.fumigatus

<400> 38834
Val Phe Leu Arg Thr Gln Cys Leu Arg Gly Ser Ile Ser Cys Ile Ser
1 5 10 15

```
Ile Ser Ser Gly Ser Ile Ala Ala Thr Pro Phe Ser Ala Val Ile Ser
            20                  25                  30
Asp Arg Leu Gly Arg Arg Lys Cys Met Phe Val Gly Ala Trp Ile Ile
        35                  40                  45
Ile Ala Gly Ser Ile Ile Ile Ala Thr Ala Asn His Leu Pro Gln Phe
    50                  55                  60
Tyr Val Gly Arg Val Val Leu Gly Phe Gly Ile Gln Val Met Val Val
65                  70                  75                  80
Ser Ala Pro Ala Tyr Ala Val Glu Ile Ala Pro Pro His Trp Arg Gly
                85                  90                  95
Arg Ala Val Gly Lys Ser Pro His Asn Phe Arg Asn Val Pro Ala Ile
            100                 105                 110
Ala Glu Leu Gly Arg Phe Leu Gln Leu Arg Leu Val Arg Trp Phe Tyr
        115                 120                 125
Pro Arg Cys Gly Cys His Leu Arg Leu Gln Gln His Arg Gln Arg Leu
    130                 135                 140
Leu Val Ala Tyr Ser Phe His Pro Ala Val Leu Cys Leu Tyr Tyr Cys
145                 150                 155                 160
Arg Leu Phe His Leu Val His Ser Arg Val Pro Pro Leu Ala Asp Arg
                165                 170                 175
Pro Trp Pro Gly Gly Glu Gly His Arg Phe Pro Asp Gln Val Pro Arg
            180                 185                 190
```

<210> 38835
<211> 310
<212> PRT
<213> A.fumigatus

<400> 38835

```
Val Leu Ser Ile Arg Gln Thr Leu His Leu Gln Glu Leu Ile Asp Arg
1               5                   10                  15
Leu Asp Arg Pro Phe Phe Phe Thr His Ser Gly Arg Trp Arg Phe Leu
            20                  25                  30
Gln Val Met Met Ile Ser Val Phe Gly Gln Trp Ser Gly Asn Gly Leu
        35                  40                  45
Gly Tyr Phe Asn Ala Thr Ile Tyr Asn Thr Leu Gly Tyr Thr Ser Ser
    50                  55                  60
Ser Met Gln Leu Leu Met Asn Leu Val Asn Ser Ile Val Ser Ala Ile
65                  70                  75                  80
Gly Ala Leu Ser Ala Val Ala Leu Thr Asp Arg Met Pro Arg Arg Lys
                85                  90                  95
Val Leu Val Trp Gly Thr Phe Gly Thr Phe Phe Ser His Ser Pro Pro
            100                 105                 110
Arg Ile Ala Ala Asp Ser Leu Ala Cys Ala Ile Thr Met Ala Val Asn
        115                 120                 125
Ala Gly Val Ser Glu Pro Leu Ile Lys Gln Thr Ala Thr Gly Asn Ile
    130                 135                 140
Asn Lys Thr Tyr Gly Gln Thr Ala Val Ala Phe Tyr Tyr Leu Phe Asn
145                 150                 155                 160
Phe Val Phe Ser Phe Thr Tyr Thr Pro Leu Gln Gly Val Ile Pro Ala
                165                 170                 175
Glu Ala Leu Glu Thr Thr Thr Arg Ala Lys Gly Leu Ala Leu Ser Gly
            180                 185                 190
Phe Met Val Ser Cys Ile Ser Phe Val Ser Gln Tyr Ala Ser Pro Ile
        195                 200                 205
Gly Leu Gln Asn Ile Ser Thr His Tyr Phe Trp Ile Phe Val Gly Trp
```

```
    210                 215                 220
Asp Leu Phe Glu Ser Leu Cys Trp Tyr Leu Phe Gly Tyr Val Leu Phe
225                 230                 235                 240
Pro Val Phe Arg Gly Ala Ile Leu Thr Arg Ile Val Ser Asn Pro Arg
                245                 250                 255
Val Val Arg Trp Arg Asn Ser Ser Gly Phe Thr Ser Ser Pro Ser Pro
            260                 265                 270
Ser Arg Pro Arg Ser Arg Ser Thr Arg Leu Leu Ser Ser Pro Met Asp
        275                 280                 285
Thr Ser Ser Arg Arg Ser Pro Thr Arg Leu Asn Cys Pro Val Gly Leu
    290                 295                 300
Ser Leu Val Asn Gly Arg
305                 310
```

<210> 38836
<211> 160
<212> PRT
<213> A.fumigatus

<400> 38836

```
Trp Ser Cys Leu Pro Pro Arg Met Leu Leu Arg Leu Leu Leu Pro Thr
1               5                   10                  15
Gly Val Gly Val Pro Ser Val Ser His Leu Thr Thr Leu Glu Met Cys
            20                  25                  30
Gln Gln Leu Leu Asn Trp Val Gly Phe Tyr Asn Cys Gly Trp Phe Gly
        35                  40                  45
Gly Ser Ile Pro Ala Ala Ala Val Thr Tyr Gly Cys Asn Asn Ile Asp
    50                  55                  60
Asn Asp Tyr Ser Trp Arg Ile Pro Phe Ile Leu Gln Cys Phe Ala Cys
65                  70                  75                  80
Ile Ile Val Val Cys Ser Ile Trp Phe Ile Pro Glu Ser Pro Arg Trp
                85                  90                  95
Gln Ile Ala His Gly Gln Glu Glu Lys Ala Ile Ala Phe Leu Thr Lys
            100                 105                 110
Tyr His Gly Asn Gly Asn Arg Asn Ala Arg Leu Val Leu Leu Glu Val
        115                 120                 125
Glu Glu Met Arg Glu Gly Ile Arg Leu Asp Gly Ile Asp Lys Arg Trp
    130                 135                 140
Trp Asp Cys Glu Tyr Phe Pro Ser Asp Lys Pro Phe Ile Cys Arg Ser
145                 150                 155                 160
```

<210> 38837
<211> 594
<212> PRT
<213> A.fumigatus

<400> 38837

```
Asp Glu Asp Phe Pro Arg Phe Val Trp Asp Thr Ala Ser Thr Met Met
1               5                   10                  15
Ser Pro Arg Ser Thr Lys Phe Leu Trp Ile Leu Gln Leu Leu Val Ile
            20                  25                  30
Gly Asn Val Pro Leu Val Phe Ser Ser Val Lys Pro Tyr Pro Leu Ser
        35                  40                  45
Trp Asn Thr Thr His Asp Phe Gly Tyr Asp Gly Pro Trp His Ala Ile
    50                  55                  60
Pro Leu Arg Ile Gly Arg Pro Glu Gln Thr Ile Asn Leu Tyr Pro Gly
```

```
65                  70                  75                  80
Gly Ser Trp Ala Ser Val Val Leu Gly Thr His Ile Gln Asp Ala Trp
                85                  90                  95
Gly Asn Asp Tyr Pro Asn Gln Asp Trp Leu Lys Gly Ser Glu Val Trp
            100                 105                 110
Asp Ala Ser Leu Ser Ala Pro Gln Arg Ser Gly Ser Ser Gln Asn Asn
        115                 120                 125
Asn Ile Ala Gln Ala Asn Arg Gly Gly Val Ser Gly Ser Ile Asp Gly
    130                 135                 140
Asn Trp Gly Gly Gln Val Ala Met Asn Met Thr Gly Leu Gly Val Gln
145                 150                 155                 160
Ile Thr Asp Arg Val Tyr Phe Tyr Thr Pro Asp Asn Gly Ile Ala Ile
                165                 170                 175
Pro Asn Gly Thr Leu Ser Val Leu Ala Ser Ala Asn Met Thr Tyr Pro
            180                 185                 190
Asp Gly Lys Val Val Pro Leu Asp Met Gly Phe Leu Ser Leu Gly Ala
        195                 200                 205
Arg Glu Ala Gln Arg Trp Asp Pro Tyr Val Gly Asn Val Ile Pro Asp
    210                 215                 220
Tyr Leu Ser Ile Asn Gly Tyr Thr Pro Ser Ser Ser Trp Ser Leu His
225                 230                 235                 240
Ile Gly Ser Ala Val Met Gly Ile Pro Gly Ser Leu Ile Phe Gly Gly
                245                 250                 255
Tyr Asp Ser Thr Arg Val Ile Gly Asp Ile Gly Thr Tyr Asp Thr Thr
            260                 265                 270
Asp Gly Phe Gly Gly Met Phe Thr Glu Leu Val Asp Val Gln Leu Gly
        275                 280                 285
Val Ala Ser Gly Ser Gly Ser Pro Trp Ser Phe Gln Asn Lys Thr Asn
    290                 295                 300
Leu Leu Gln Asp Ala Gly Ser Lys Thr Gln Val Ile Thr Thr Arg Met
305                 310                 315                 320
Asn Pro Thr Val Pro Tyr Ile Phe Leu Pro Asn Arg Thr Cys Gln Leu
                325                 330                 335
Leu Ala Glu Asn Leu Pro Val Thr Trp Arg Trp Asp Leu Gly Leu Tyr
            340                 345                 350
Thr Trp Asn Thr Glu Asp Pro Gln Tyr Glu Arg Ile Leu Asn Ser Pro
        355                 360                 365
Ala Tyr Ile Lys Phe Val Phe Asn Arg Pro Ala Gly Ala Ser Pro Ile
    370                 375                 380
Glu Ile Arg Val Pro Phe Ala Leu Phe Asn Leu Thr Leu Thr Gln Pro
385                 390                 395                 400
Ile Val Asp Arg Pro Thr Gln Tyr Phe Pro Cys Arg Pro Phe Gln Asn
                405                 410                 415
Asn Gly Ala Glu Tyr His Leu Gly Arg Ala Phe Leu Gln Ala Ala Phe
            420                 425                 430
Leu Gly Met Asn Trp Val Thr Ser Lys Trp Trp Leu Ala Gln Ala Pro
        435                 440                 445
Gly Pro Leu Gly Leu Ala Ser Ser Ile Val Val Ile Ser Asn Ser Thr
    450                 455                 460
Glu Thr Ile Thr Thr Ser Ala Pro Ser Ser Phe Trp Thr Asp Ser Trp
465                 470                 475                 480
Lys Gly Ile Leu Thr Ser Leu Pro Ile Asp Gly Asn Pro Ser Ser Ser
                485                 490                 495
Gly Ser Ser Phe Gln Pro Ser Ser Ala Gly Asn Gly Thr Glu Ser Lys
            500                 505                 510
Gly Ala Leu Ser Ser Gly Ala Ile Ala Gly Ile Ala Val Gly Ala Ser
```

```
        515                 520                 525
Val Gly Gly Val Leu Ile Leu Gly Met Leu Phe Phe Phe Trp Arg Thr
    530                 535                 540
Arg Arg Thr Arg Phe Thr Lys Gln Ile Pro Ser Pro Thr Val Ser Gln
545                 550                 555                 560
Ala Gln Pro Thr Thr Pro Ala Asn Thr Ser Thr Asp Ala Gln Lys Tyr
                565                 570                 575
Glu Leu Pro Asp Arg Gln Pro Val Ala Tyr Glu Leu Met Ser Arg Glu
            580                 585                 590
Gln Tyr
```

<210> 38838
<211> 299
<212> PRT
<213> A.fumigatus

<400> 38838

```
Ile Ser Tyr Val Ala Gln Arg Ala Arg Ser Leu Val Cys Asp Val Asp
1               5                   10                  15
Pro Phe Asp Gln Leu Asp Ser Pro Val Leu Asp Asp Arg Ala Val Asp
            20                  25                  30
Asn His Gly Gln Ser Leu Cys Cys Asp Ile Gly Ala Val Asp Trp Cys
        35                  40                  45
Ser His Ala Gly Gln Leu Cys Arg Phe Gln Gln His His Ala His Gly
    50                  55                  60
Pro Arg Leu Val Gln His His Ala Asp Gln Arg Ile Ser Ile Gly Asp
65                  70                  75                  80
Arg Pro Asp Arg Pro Asn His Pro Gln His Gln Arg Leu Leu His Leu
                85                  90                  95
Leu Arg Arg Arg Gly Pro Pro Asp Pro Pro Arg Arg Leu Gly Gln His
            100                 105                 110
Ser His His Arg Arg Arg Gln His Pro Gln Pro Gln Gln Ala Arg Gln
        115                 120                 125
Leu Gly Leu Arg Leu Pro Arg Ser Ile Val Arg Arg Trp Arg Ser Cys
    130                 135                 140
Arg Pro Cys Arg Arg Tyr Pro Ala Pro Arg Glu Pro Pro Arg Asn Lys
145                 150                 155                 160
Leu His Val Arg Gly Asn Arg Ser Arg Arg Arg Arg Arg Leu His Leu
                165                 170                 175
Gln Pro His Leu Thr Ile His His Pro Arg Thr Arg Gln Arg Pro Ala
            180                 185                 190
Arg Ser Glu Gly Ala Ser Pro Gly Gln Gln Pro Glu Arg Pro Arg Val
        195                 200                 205
Leu Arg Leu Tyr Arg Pro Arg Arg Pro His His Arg Arg His Arg Arg
    210                 215                 220
Leu Gln Pro Ala His Asn Phe His Ser Glu Thr Leu Pro Arg His Cys
225                 230                 235                 240
Arg Gly Gly Leu Leu Arg Pro Thr Glu Arg Asn Thr Val His Arg Asp
                245                 250                 255
Val His Pro Arg Ala Leu Gln Arg Leu Gly Arg His Pro Leu Ala Glu
            260                 265                 270
His His Arg Arg Lys Ala Gly Arg Pro Gly Gly Val Asn Arg Pro His
        275                 280                 285
Ala Ser His Arg Pro Arg Arg His Pro Pro Ala
    290                 295
```

<210> 38839
<211> 638
<212> PRT
<213> A.fumigatus

<400> 38839
Asp Ile Arg Val Gly Leu Thr Ser Ile Ala Lys Met Arg Met Ile Tyr
1 5 10 15
Arg Lys Asn Asp Glu Lys Gln Arg Leu Val Ser Gln Arg Arg Val Ser
20 25 30
Glu Asp Ser Val Gln Lys Pro Ser Arg Gln Ser His Ala Thr Trp Glu
35 40 45
Gln Leu Leu Phe Cys Leu Leu Leu Ile Pro Ala Val Leu Ser Ile Leu
50 55 60
Leu Val Leu Ser Asp Val Arg Asn Trp His Met Pro Ser Gly Leu Asn
65 70 75 80
Ala Leu Val Asp Glu Tyr Arg Thr Ser Ile Gln Thr Ala Val Gln Ile
85 90 95
Val Ala Thr Ile Leu Ser Thr Ile Gln Ile Phe Ala Leu Cys Arg Leu
100 105 110
Ile Asn Trp Ala Thr Arg Ile Leu Phe Gly Lys Tyr Pro Thr Ser Leu
115 120 125
Asn Val Leu Gly Leu Trp Ser Ala Met Ser Thr Pro Ser Ile Asn Trp
130 135 140
Thr Leu Pro Phe Trp Met Ile Val Leu Ser Ile Ile Met Val Asn Leu
145 150 155 160
Ser Ala Val Ile Ser Ala Leu Trp Thr Gly Ala Leu Thr Pro Ala Asn
165 170 175
Ser Val Ala Phe Asn Ser Thr Thr Leu Met Val Pro Asp Trp Ser Asn
180 185 190
Thr Thr Leu Ile Lys Glu Tyr Pro Ser Glu Ile Asp Gln Thr Gly Pro
195 200 205
Thr Ile Arg Asn Thr Lys Gly Tyr Phe Thr Tyr Ser Val Gly Val Gly
210 215 220
Leu Leu Thr Pro Leu Val Ala Ser Ala Ser Thr Ala Thr Thr Val Asp
225 230 235 240
Gly Ser Ile Arg Asn His Asn Lys Leu Asp Asn Ser Gly Tyr Ala Tyr
245 250 255
His Gly Arg Ser Tyr Gly Val Gly Ala Pro Val Gly Leu Val Asp Asp
260 265 270
Ile Leu His Arg Glu Asn Pro Arg Ala Thr Asn Tyr Thr Tyr Glu Glu
275 280 285
Thr Gly Leu Ala Ala Asp Val Ala Cys Ile Tyr Asn Arg Thr Ser Gln
290 295 300
Phe Thr Ile His Glu Leu Gly Ser Val Leu His Ala Leu Lys Gly Pro
305 310 315 320
Leu Pro Asp Ser Asn Leu Ser Ala Pro Glu Tyr Ser Val Tyr Ile Gly
325 330 335
Arg Gly Asp Arg Thr Ile Val Gly Ile Gly Val Ser Ser Gln Pro Thr
340 345 350
Thr Phe Thr Ala Arg Arg Tyr Leu Ala Ile Ala Ala Gly Asp Tyr Tyr
355 360 365
Ala Pro Leu Asn Ala Thr Gln Cys Thr Val Thr Tyr Ile Pro Ala Arg
370 375 380
Phe Asn Val Ser Val Asp Ile Pro Ser Arg Asn Ile Thr Val Ala Lys

385 390 395 400
Leu Asp Gly Pro Ala Ala Ser Ile Asp Pro Thr His Arg Ile Ala His
405 410 415
Val Val Thr Arg Gln Leu Glu Leu Ile Ser Asn Asp Leu Thr Ser Phe
420 425 430
Tyr Arg Ser Thr Leu Gly Asp Ala Leu Asn Ala Ser Ile Ser Asp Tyr
435 440 445
Arg Thr Ala Val Ala Ala Thr Ser Pro Asn Ala Ser Leu Ser Glu Glu
450 455 460
Gln Ile Ala Leu Thr Gly Leu Glu Asn Ala Ile Val Ala Phe Val Asp
465 470 475 480
Asp Met Leu Val Ala Tyr Ala Ser Ala Gln Leu Val Val Gly Gly Phe
485 490 495
Ala Thr Pro Ala Ser Ala Ala Val His Val Ser Ala Leu Arg Leu Gly
500 505 510
Ser Arg Ala Tyr Ile Cys Ala Thr Ala Val Ile Thr Gly Val Ile Val
515 520 525
Leu Leu Val Val Ala Glu Met Val Arg Thr Lys Gly Trp Arg Gly Leu
530 535 540
Pro Lys Phe Asp Tyr Leu Asp Asn Arg Met Leu Val Leu Gly Ala Ser
545 550 555 560
Ala Gly Gly Gly Glu Ile Ala Glu Tyr Ala Ala Glu Arg Arg Trp Lys
565 570 575
Ala Thr Gly Arg Ile Pro Val Val Leu Arg Thr Glu Gly Asp His Glu
580 585 590
Val Ile Ala Leu Gly Val Glu Arg Gly Ser Asp Arg Gln Gln Ser Glu
595 600 605
Ser Thr Leu Ala Glu Glu Thr Glu Gln Ser Thr Ala Val Ser Glu Thr
610 615 620
Arg Gln Ala Gly Ser Arg Arg Val Ala Glu Ala Gly Trp Ile
625 630 635

<210> 38840
<211> 136
<212> PRT
<213> A.fumigatus

<400> 38840
Pro Gly Arg His Gly Leu Ser Tyr Thr Thr Phe His Val Ser Pro Glu
1 5 10 15
Ala Thr Val Ser Pro Ile Val Phe Ser Ser Asp Ser Pro Pro Thr Ala
20 25 30
Thr Val Leu Val Lys Asn Thr Gly Pro Met Ala Gly Ala Gln Thr Leu
35 40 45
Gln Leu Tyr Ile Ala Ala Pro Asn Ser Thr Thr Pro Arg Pro Val Lys
50 55 60
Glu Leu His Gly Phe Thr Lys Val Phe Leu Gln Ser Gly Glu Glu Arg
65 70 75 80
Ser Val Ser Ile His Ile Asp Arg Tyr Ala Thr Ser Phe Trp Asp Glu
85 90 95
Ile Glu Asp Met Trp Lys Ser Glu Glu Gly Val Tyr Gln Val Leu Ile
100 105 110
Gly Thr Ser Ser Gln Glu Ile Val Ser Arg Gly Glu Phe Arg Val Glu
115 120 125
Gln Thr Arg Tyr Trp Arg Gly Val
130 135

<210> 38841
<211> 84
<212> PRT
<213> A.fumigatus

<400> 38841
Gln Tyr Ser Arg Gly Thr Ile Gln Cys Phe Ser Ala Asn Trp Lys Trp
1 5 10 15
Glu Ser Pro Glu Ala Trp Val Leu Lys Arg Trp Pro Val Ala Ala Ile
20 25 30
Leu Phe Ala Ser Lys Met Gly Tyr Leu Phe Asp Ile Ile Thr Gly His
35 40 45
Asp Phe Gln Leu Trp Arg Phe Gly Arg Ser Met Gly Ser Pro Gly Arg
50 55 60
Ala Leu Arg Gly Leu Glu Lys Ser Gly Ala Phe Arg Ser Ile His Glu
65 70 75 80
Asn Gly Trp Thr

<210> 38842
<211> 675
<212> PRT
<213> A.fumigatus

<400> 38842
Ser Leu Ile Gly Ser Asp Phe Trp His Thr His Ala Ile Pro Lys Phe
1 5 10 15
Asn Val Pro Pro Ile Arg Thr Thr Asp Gly Pro Asn Gly Ile Arg Gly
20 25 30
Thr Lys Phe Phe Ala Gly Val Pro Ala Ala Cys Leu Pro Cys Gly Thr
35 40 45
Ala Leu Gly Ala Thr Trp Asp Arg Asp Leu Leu His Gln Ala Gly Val
50 55 60
Leu Leu Gly Lys Glu Cys Leu Ala Lys Gly Ala His Cys Trp Leu Gly
65 70 75 80
Pro Thr Ile Asn Met Gln Arg Ser Pro Leu Gly Gly Arg Gly Phe Glu
85 90 95
Ser Phe Ala Glu Asp Pro His Leu Ser Gly Ile Met Ala Lys Ser Ile
100 105 110
Ile Leu Gly Cys Glu Ser Thr Gly Val Ile Ser Thr Val Lys His Tyr
115 120 125
Val Gly Asn Asp Gln Glu His Glu Arg Arg Ala Val Asp Val Leu Val
130 135 140
Thr Pro Arg Ala Leu Arg Glu Ile Tyr Leu Arg Pro Phe Gln Ile Val
145 150 155 160
Ala Arg Asp Ala His Pro Gly Ala Leu Met Thr Ser Tyr Asn Lys Ile
165 170 175
Asn Gly Lys His Val Val Glu Asn Pro Ala Met Leu Asp Ile Val Arg
180 185 190
Lys Asp Trp His Trp Asp Pro Leu Ile Met Ser Asp Trp Leu Gly Thr
195 200 205
Tyr Thr Thr Ile Asp Ser Leu Asn Ala Gly Leu Asp Leu Glu Met Pro
210 215 220
Gly Pro Thr Arg Tyr Arg Gly Lys Tyr Ile Glu Ser Ala Met Gln Ala
225 230 235 240

```
Arg Leu Ile Lys Gln Ser Thr Ile Ser Lys Arg Ala Arg Lys Val Leu
                245                 250                 255
Glu Phe Val Glu Arg Ala Ser Arg Ala Pro Val Ser Ala Asp Glu Thr
            260                 265                 270
Gly Arg Asp Phe Pro Glu Asp Arg Ala Leu Asn Arg Thr Leu Cys Ala
        275                 280                 285
Asn Ser Ile Val Leu Leu Lys Asn Asp Gly Asn Leu Leu Pro Ile Pro
    290                 295                 300
Lys Thr Val Lys Lys Ile Ala Leu Ile Gly Ser His Val Lys Thr Pro
305                 310                 315                 320
Ala Ile Ser Gly Gly Gly Ser Ala Ser Leu Glu Pro Tyr Tyr Ala Val
                325                 330                 335
Ser Leu Tyr Asp Ala Val Val Glu Ala Leu Pro Asp Ala Glu Ile Leu
            340                 345                 350
Tyr Glu Ala Gly Ala Tyr Ala His Arg Met Leu Pro Val Ile Asp Arg
        355                 360                 365
Met Leu Ser Asn Ala Val Ile His Phe Tyr Asn Glu Pro Pro Glu Lys
    370                 375                 380
Glu Arg Thr Leu Leu Ala Thr Glu Pro Val Val Asn Thr Ala Phe Gln
385                 390                 395                 400
Leu Met Asp Tyr Asn Ala Pro Gly Leu Asn Arg Ala Leu Phe Trp Ala
                405                 410                 415
Thr Leu Ile Gly Glu Phe Thr Pro Asp Val Ser Gly Leu Trp Asp Phe
            420                 425                 430
Gly Leu Thr Val Phe Gly Thr Ala Thr Leu Phe Ile Asp Asp Glu Met
        435                 440                 445
Val Ile Asp Asn Ala Thr Arg Gln Thr Arg Gly Thr Ala Phe Phe Gly
    450                 455                 460
Lys Gly Thr Val Gln Glu Val Gly Gln Lys Gln Leu Thr Ala Gly Gln
465                 470                 475                 480
Thr Tyr Lys Ile Arg Ile Glu Phe Gly Ser Ala Asn Thr Ser Pro Met
                485                 490                 495
Lys Ala Ile Gly Val Val His Phe Gly Gly Gly Ala Ala His Leu Gly
            500                 505                 510
Ala Cys Leu His Met Asp Pro Glu Gln Met Val Ala Asn Ala Val Arg
        515                 520                 525
Val Ala Ala Glu Ala Asp Tyr Thr Ile Val Cys Thr Gly Leu Asn Arg
    530                 535                 540
Asp Trp Glu Ser Glu Gly Phe Asp Arg Pro Asp Met Asp Leu Pro Pro
545                 550                 555                 560
Gly Ile Asp Ala Leu Ile Ser Ser Val Leu Asp Val Ala Ala Asp Arg
                565                 570                 575
Thr Val Ile Val Asn Gln Ser Gly Thr Pro Val Thr Met Pro Trp Ala
            580                 585                 590
His Arg Ala Arg Gly Ile Val Gln Ala Trp Tyr Gly Gly Asn Glu Thr
        595                 600                 605
Gly His Gly Ile Ala Asp Val Leu Phe Gly Asp Val Asn Pro Ser Gly
    610                 615                 620
Lys Leu Pro Leu Ser Trp Pro Ala Asp Val Arg His Asn Pro Thr Tyr
625                 630                 635                 640
Leu Asn Asn Met Ser Val Gly Gly Arg Met Leu Tyr Gly Glu Asp Val
                645                 650                 655
Tyr Ile Gly Tyr Arg Phe Tyr Glu Lys Val Gly Arg Glu Val Leu Phe
            660                 665                 670
Pro Phe Gly
        675
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<210> 38843
<211> 140
<212> PRT
<213> A.fumigatus

<400> 38843
Val Leu Cys Ser Val Leu Lys Trp Cys Trp Ser Arg Leu Pro Gly Gly
1 5 10 15
Val Val Thr Trp Asp Ala Tyr Glu Leu Phe Lys Val Gly Glu Gln Gly
20 25 30
Met Gly Leu His Tyr Ile Ala Ala Ala Gly Arg Leu His Lys Ala Asp
35 40 45
Arg Ile Ala Asp Ser Gln Leu Ala Arg Asp Ala Phe Ser Thr Phe Ile
50 55 60
Pro Ile Ser Val Asp Ser Asp Ala Arg Thr Lys Ile Ile Phe Asp Phe
65 70 75 80
Phe Asp Leu Leu Ala Ala Ile Ala Ala His Gly Lys Ser Asn Gly Leu
85 90 95
Gly Gly Arg Lys Leu Ser Arg Tyr Ala Gly Trp Trp Ala Phe Glu His
100 105 110
Ser Asp Ala Gly Asn Gly Phe Glu Ala Ala Tyr Lys Asn Trp Ala Ala
115 120 125
Tyr Val Phe Leu Gln Ser Asn Ile Pro Gly Leu Ser
130 135 140

<210> 38844
<211> 362
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (233)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38844
Gln Gly Thr Ser Leu Arg Gly Gly Leu Arg Ser Ala Pro His Ser Val
1 5 10 15
Ala Gly Asp Leu Gly Arg Pro Thr Thr Pro Ser Trp Ala Asp Phe Met
20 25 30
Ser Ser Gly Phe Asn Asp Ser Asn Asp Phe Lys Pro Gln Val Ala Pro
35 40 45
Leu Leu Leu Pro Pro His Lys Val Leu Pro Pro Ile Ala Thr Val Arg
50 55 60
Gly Gln Ser Ser Gln Ser His Lys Arg Thr Leu Asp Ser Glu Val Pro
65 70 75 80
Ala Glu Pro Ala Glu Leu Ala Ser Ile Thr Thr Leu Asp Leu Asp Asp
85 90 95
Ser Phe Trp Trp Val Trp Ile Ser Ser Leu Thr Leu Glu Glu Pro Ala
100 105 110
Ser Arg Lys Ala Val Phe Gly Arg Cys Ala Leu Ile Glu Thr Ile Ile
115 120 125
Lys Asp Thr Lys Trp Leu Val Leu Glu Glu Gln Val Lys Gly Ala Ala
130 135 140
Pro Glu Pro Glu Pro Gly Ala Tyr Ile Val Glu Lys Lys Arg Phe Phe

```
145                 150                 155                 160
Thr Phe Ser Ser Arg Lys Gly Met Ile Gly Arg Arg Lys Ser Ser Ala
                165                 170                 175
Lys Lys Val Ser Ala Val Glu Glu Ser Tyr Asn Arg Ala Asn Asn Leu
            180                 185                 190
Ala Pro His Ser Lys Thr Ser Ile Ala Pro Asp Gln His Ala Arg Ile
        195                 200                 205
Gln Ala Ala Ala Ala Ala Leu Gln Lys Lys His Arg Glu Gln Glu Gln
    210                 215                 220
Glu Ala Val Asn Arg Ser Lys Ala Xaa Val Pro Asn Asp Ser Arg Tyr
225                 230                 235                 240
Ser Lys Ala Thr Ser Val Met Ser Leu Gln Pro Gly Ile Met Ser Glu
                245                 250                 255
Ala Ser Gln Ala Met Lys Trp Ala Arg Asn Tyr Asp Lys Asn Ala Tyr
            260                 265                 270
Arg Ala Ala Tyr Leu Lys Asp Ser Arg Ala Gly Thr Gly Ala Leu Thr
        275                 280                 285
Asp Glu Asn Glu Ala Ala Val Asn Gly Lys Val Ser Glu Pro Pro Ala
    290                 295                 300
Ser Pro Ala Leu Ser Ser Ser Thr His Gln Ala Pro Pro Pro Val Pro
305                 310                 315                 320
Lys Asp Ser Val Pro Ser Ser Pro Thr Pro Ile Glu His Met Gln Arg
                325                 330                 335
Ser Ser Val Asp Glu Asn Ala Ala Ser Arg Gln Asp Asn Ile Ser Ala
            340                 345                 350
Ala Ala Glu Ser Leu Pro Gln Ala Val Asn
        355                 360
```

<210> 38845
<211> 248
<212> PRT
<213> A.fumigatus

```
<400> 38845
Asn Leu Leu Gly Ala Gln Pro Ser Ala Val Ala Ala Ala Arg Ala Ala
1               5                   10                  15
Leu Glu Gly Lys Ala Lys Glu Ala Gln Glu Thr Val Arg Pro Asn Gly
            20                  25                  30
Ala Ser Thr Leu Arg Lys Pro Val Pro Ala Pro Ala Ala Ala Pro Pro
        35                  40                  45
Ala Ala Pro Ala Glu Val Ala Ser Pro Pro Ala Arg Val Glu Lys Pro
    50                  55                  60
Val Pro Glu Pro Gln Thr Val Thr Thr Asp Glu Gln His Asp Gly Pro
65                  70                  75                  80
Pro Met Thr Arg Arg Asp Ala Glu Tyr Asp Ala Leu Ser Arg Val Asp
                85                  90                  95
Thr Asn Glu Arg Thr Ala Ala Asp Arg Glu Phe Ser Arg Phe Asp Gln
            100                 105                 110
Gly Pro Leu Val Glu Gln Pro Ala Phe Ala Pro Glu Asp Ser Pro Val
        115                 120                 125
Ser Glu Ala Phe Ala Asp Lys Ser Ala Pro Ala Ala Thr Val Ser Glu
    130                 135                 140
Tyr Pro Asn Arg Thr Gly Val Ser Glu Arg Ser Thr Ser Pro Thr Ala
145                 150                 155                 160
Ala Pro Ala Asn Ser Ser Tyr Asp Arg Trp Ala Gln Ile Arg Lys Asn
                165                 170                 175
```

```
Ala Ala Glu Arg Ala Ala Arg Leu Glu Gln Ser Gly Ser Tyr Arg Tyr
            180                 185                 190
Ser Gln Asp Glu Gly Asn Thr Ser Glu Glu Glu Ser Lys Trp Arg Arg
        195                 200                 205
Pro Leu Glu Leu Ala Ile Thr Met Leu Ile Leu Ser Arg Leu Arg Val
    210                 215                 220
Ser Cys Cys Ser Tyr Gln Gly Glu Ser Gly Arg Ile Asp Trp Lys Tyr
225                 230                 235                 240
Ala Gly Arg Lys Leu Lys Asp Val
                245
```

<210> 38846
<211> 99
<212> PRT
<213> A.fumigatus

<400> 38846

```
Asn Gly Lys Ala Gly Ala Ile Pro Ala Ala Ser Ser Ser Ser Leu Glu
1               5                   10                  15
Lys Pro Val Thr Pro Ala Pro Ala Ser Lys Asp Thr Pro Glu Gly Ala
            20                  25                  30
Val Ala Phe Ser Ser Ala Ala Gly Pro Trp Leu Thr Ala Ala Ile Gly
        35                  40                  45
Phe Pro Ala Ala Ala Thr Phe Cys Ile Arg Ala Ser Glu Ala Ala Ser
    50                  55                  60
Leu Thr Arg Ser Asn Ile Ala Thr Ile Asn Ile Asn Ile Asn Ile Ile
65                  70                  75                  80
Met Ser Thr Ser Asp Cys Arg Ser Leu Asp Ile Asp Ile Pro Pro Arg
                85                  90                  95
Pro Pro Thr
```

<210> 38847
<211> 261
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (9)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38847

```
Leu Leu Val Thr Arg Arg Trp Leu Xaa Thr His Phe Thr Thr His Ser
1               5                   10                  15
Ser Gln Gln Gly Lys His Pro Gln Ser Glu Leu Ala His Pro Tyr Ser
            20                  25                  30
Ile Leu Glu Pro Lys Val Thr Leu Thr Met Ala Ser Pro Gln Gly Gly
        35                  40                  45
Glu Ala Pro Phe Asp Pro Ala Ser Ala Ser Ala Ser Ala Arg Pro Glu
    50                  55                  60
Ser Asp Thr Thr Asp Ile Thr Ala Leu Ala Arg His Trp Glu Ala Trp
65                  70                  75                  80
Thr His Thr Tyr Lys Ile Arg Glu Leu Val Ala Arg Ala Gly Ala Gly
                85                  90                  95
Glu Phe Asp Ala Val Phe Tyr Val Gly Gly Arg Gly Gly Met Ser Met
```

```
            100                 105                 110
Ser Asn Asp Leu Gln Ser Glu Val Asp Ile Met Met Leu Met Leu Met
        115                 120                 125
Leu Met Val Ala Met Phe Asp Leu Val Arg Asp Ala Ala Ser Leu Ala
    130                 135                 140
Leu Ile Gln Asn Val Ala Ala Ala Gly Lys Pro Ile Ala Ala Val Ser
145                 150                 155                 160
His Gly Pro Ala Ala Leu Leu Asn Ala Thr Ala Pro Ser Gly Val Ser
                165                 170                 175
Leu Leu Ala Gly Ala Gly Val Thr Gly Phe Ser Arg Glu Glu Glu Asp
            180                 185                 190
Ala Ala Gly Met Ala Pro Ala Leu Pro Phe Gln Leu Glu Thr Glu Leu
        195                 200                 205
Glu Arg Val Ser Gly Gly Gly Tyr Val Lys Ala Asp Arg Ser Gly Thr
    210                 215                 220
Lys Val Val Val Ser Thr Thr Ala Gly Leu Cys Ser Pro Leu Ile Thr
225                 230                 235                 240
Gly Gln Asn Pro Ala Ser Ala Ala Gly Val Ala Arg Glu Ile Leu Arg
                245                 250                 255
Val Leu Gly Cys Asp
            260
```

<210> 38848
<211> 181
<212> PRT
<213> A.fumigatus

<400> 38848

```
Gln Phe Cys Ala Tyr Leu Val Asn Ser Val His Pro Thr Leu Ser Leu
1               5                   10                  15
His Ile Phe Lys Met Gly Ala Val Arg Lys Ile Lys Thr Lys Arg Arg
            20                  25                  30
Thr Arg Tyr Asp Ile Gln Glu Cys Thr His Arg Ala Ile Gly Ala Leu
        35                  40                  45
Glu Gly Pro Ile Ala Leu Thr Leu Leu Val Ser Cys Arg Asp Tyr Asp
    50                  55                  60
Gln Val Arg Ala Asp Ile Asp Ser Pro Lys His Leu Thr Gln Tyr Lys
65                  70                  75                  80
Ala Thr Lys Asp Ala Glu Asp Leu Pro Gly Leu Gly Lys His Tyr Cys
                85                  90                  95
Val Glu Cys Ser Lys Trp Phe Glu Ser Glu Tyr Asn Leu Val Ala His
            100                 105                 110
Thr Lys Gly Lys Asn His Lys Arg Arg Ser Val Ile Met Asp Ser Ala
        115                 120                 125
Asn Val Phe Leu Asp Arg Ser Arg Leu Thr Gln Gly Cys Leu Asn Arg
    130                 135                 140
Leu Arg Leu Leu Arg Glu Glu Pro His Ser Gln Lys Ile Ala Glu Ala
145                 150                 155                 160
Ala Val Gly Leu Ser Thr Asp Asn Gly Leu Arg Gln Gln Glu Thr Val
                165                 170                 175
Val Asp Met Glu Asp
            180
```

<210> 38849
<211> 364
<212> PRT

<213> A.fumigatus

<400> 38849

```
Ala Val Lys Trp Leu Gly Lys Asp Ala Ile Thr Pro Phe Ala Ile Asp
1               5                  10                  15
Gly Lys Ala Ser Lys Ala Glu Leu Thr Ser Gln Ile Lys Gln Trp Ala
            20                  25                  30
Ile Ala Ser Gly Arg Ala Val Val Arg Pro Val Leu Ile Val Ser Tyr
        35                  40                  45
Glu Thr Leu Arg Met Tyr Val Asp Ala Leu Lys Asp Ser Pro Ile Gly
    50                  55                  60
Leu Leu Leu Cys Asp Glu Gly His Arg Leu Lys Asn Lys Asp Ser Leu
65                  70                  75                  80
Thr Trp Thr Ala Leu Asn Ser Leu Asn Val Thr Arg Arg Val Ile Leu
                85                  90                  95
Ser Gly Thr Pro Ile Gln Asn Asp Leu Ser Glu Tyr Phe Ala Leu Leu
            100                 105                 110
His Phe Ala Asn Pro Asn Leu Leu Gly Ser Gln Asn Glu Phe Arg Lys
        115                 120                 125
Arg Phe Glu Ile Pro Ile Leu Lys Gly Arg Asp Ala Ala Gly Thr Glu
    130                 135                 140
Glu Asp Arg Lys Lys Gly Asp Glu Arg Leu Ala Glu Leu Ser Gly Ile
145                 150                 155                 160
Val Asn Lys Phe Ile Ile Arg Arg Thr Asn Asp Ile Leu Ser Lys Tyr
                165                 170                 175
Leu Pro Ile Lys Tyr Glu His Val Val Phe Cys Asn Leu Ser Gln Phe
            180                 185                 190
Gln Leu Asp Leu Tyr Asn His Phe Ile Gln Ser Pro Glu Ile Lys Ser
        195                 200                 205
Leu Leu Arg Gly Lys Gly Ser Gln Pro Leu Lys Ala Ile Gly Ile Leu
    210                 215                 220
Lys Lys Leu Cys Asn His Pro Asp Leu Leu Asp Leu Thr Arg Asp Leu
225                 230                 235                 240
Pro Gly Cys Glu His Thr Phe Pro Glu Asp Tyr Val Pro Pro Glu Ala
                245                 250                 255
Arg Gly Arg Asp Arg Asp Ile Lys Ser Trp Tyr Ser Gly Lys Met Met
            260                 265                 270
Val Leu Asp Arg Met Leu Ala Arg Ile Arg Gln Asp Thr Asn Asp Lys
        275                 280                 285
Ile Val Leu Ile Ser Asn Tyr Thr Gln Thr Leu Asp Leu Phe Glu Lys
    290                 295                 300
Leu Cys Arg Ser Arg Gly Tyr Gly Ser Leu Arg Leu Asp Gly Thr Met
305                 310                 315                 320
Asn Ile Asn Lys Arg Gln Lys Leu Val Asp Lys Phe Asn Asn Pro Asp
                325                 330                 335
Gly Glu Glu Phe Val Phe Leu Leu Ser Ser Lys Ala Gly Gly Cys Gly
            340                 345                 350
Leu Asn Leu Ile Gly Ala Asn Arg Leu Val Leu Phe
        355                 360
```

<210> 38850
<211> 292
<212> PRT
<213> A.fumigatus

<400> 38850

```
Ile Asp Lys Asn Arg Tyr Arg Pro Arg Pro Ala Val Gly Thr Glu Gly
1               5                  10                  15
Gly Asn Thr Pro Leu Ser Lys Pro Leu Gln Arg Asn Ile Ser Ser Asn
            20                  25                  30
Ser Ile Asp Arg Leu Ser Lys Pro Phe Lys Cys Pro Gly Ser Ala Ile
        35                  40                  45
Pro Thr Arg Thr Ser Asp Lys Pro Ala Arg Lys Arg Arg Lys Val Asn
    50                  55                  60
Tyr Ala Gly Ala Asp Gly Glu Val Glu Asp Asn Ser Val Lys Pro Trp
65                  70                  75                  80
Thr Asn Glu Glu Arg Leu Ala Leu Ala Thr Arg Asp Ala Asn Lys Phe
                85                  90                  95
Pro Val Phe Lys Val Lys Asp Lys Glu Thr Thr Phe Lys Gln Arg Phe
            100                 105                 110
Arg Ile Pro Leu Ile Asn Lys Ser Ser Asn Asp Tyr Asn Pro Ser Arg
        115                 120                 125
Pro Ala Pro Thr Leu Gly Met Arg Gln Gly Ala Thr Phe Val Val Lys
    130                 135                 140
Pro Leu His Asp Pro Ser Gly Glu Phe Ala Ile Val Leu Tyr Asp Pro
145                 150                 155                 160
Thr Val Asp Asp Ile Gly Glu Ala Pro Glu Ser Met Pro Glu Asp Lys
                165                 170                 175
Gly Ile Glu Glu Thr Lys Ala Lys Leu Asp Glu Pro Leu Val His Lys
            180                 185                 190
Ser Leu Ala Asp Ile Leu Gly Leu Lys Lys Lys Val Glu Ser Arg Pro
        195                 200                 205
Lys Val Pro Val Val Ile Asp Pro Arg Leu Ala Lys Val Leu Arg Pro
    210                 215                 220
His Gln Val Glu Gly Val Lys Val Val Thr Pro Leu Thr Ser Thr Arg
225                 230                 235                 240
Thr Arg Ile Gln Lys Leu Thr Cys Leu Leu Arg Lys Phe Leu Tyr Arg
                245                 250                 255
Cys Thr Thr Gly Leu Ile Asp Lys Asn Ala Asn Gly Cys Ile Met Ala
            260                 265                 270
Asp Gly Met Gly Leu Gly Lys Thr Val Cys Gly Ser Phe Phe Arg Asp
        275                 280                 285
Ile Asp Gln Ala
    290
```

<210> 38851
<211> 172
<212> PRT
<213> A.fumigatus

<400> 38851

```
Leu Leu Ala Pro Glu Thr Arg Leu Ala Met Asp Phe Ser Met His Asn
1               5                  10                  15
Ala Phe Pro Gly Ser Phe Arg Asp Arg Phe Leu Val Gly Arg Leu Phe
            20                  25                  30
Thr Tyr Gly Thr His Ser Phe Cys Ser Tyr Glu Tyr Arg Arg Pro Leu
        35                  40                  45
Met Ser Ser Glu Ile Asp Asn Ala His Glu Ile Ala Leu Lys Val Leu
    50                  55                  60
Phe Cys Gly Gly Ile Ala Gly Val Thr Thr Trp Ala Ser Val Tyr Pro
65                  70                  75                  80
Leu Asp Met Ile Lys Thr Arg Leu Gln Ala Gln Thr Ile Ala Ile Ala
```

```
                85                  90                  95
Pro Glu Ser Arg Pro Leu Ile Pro Ile Gln Ser Lys Pro Gln Thr Leu
            100                 105                 110
Asn Ser Tyr Gln Ile Thr Lys Ala Ala Tyr Gln Ser Glu Gly Leu Lys
        115                 120                 125
Ala Phe Tyr Arg Gly Leu Gly Ile Cys Ser Leu Arg Ala Phe Ile Val
    130                 135                 140
Asn Ala Val Gln Val Cys Asp Ser Asn Thr Thr Glu Trp His Leu Leu
145                 150                 155                 160
Ile Met Arg Asn Ser Gly Gln His Thr Asn Gly Leu
                165                 170
```

<210> 38852
<211> 61
<212> PRT
<213> A.fumigatus

<400> 38852

```
Arg Gly Val Ser Thr Phe Ser Ser Tyr Ser Trp Ala Arg Ala Ile Pro
1               5                   10                  15
Ile Phe Val Asn Ser Ala His Trp Asn Ala Glu Ser Leu Glu Trp Thr
            20                  25                  30
His Ile Asp Ser Phe Phe Tyr Ala Gly Ile Ala Ser Gln Val Ala Gly
        35                  40                  45
Trp Ile Ala Leu Ser Leu Ser Val Val Ile Asn Gln Gly
    50                  55                  60
```

<210> 38853
<211> 75
<212> PRT
<213> A.fumigatus

<400> 38853

```
Ala Ala Thr Ala Gln Ala Leu Asp Leu Gly Lys Leu Phe Ser Met Ser
1               5                   10                  15
Ser Asp Phe Trp Ala Gly Tyr Leu Ser Gly Ala Ile Gly Ile Ile Ile
            20                  25                  30
Gly Asn Pro Leu Asp Val Val Lys Val Arg Leu Gln Ala Gly Gly Val
        35                  40                  45
Asn Val Ala Gly Ser Thr Ser Arg Asn Ile Gly Ser Phe Glu Asn Val
    50                  55                  60
Ser Ser Leu Val Arg Gly Arg Leu Ala Leu Ser
65                  70                  75
```

<210> 38854
<211> 119
<212> PRT
<213> A.fumigatus

<400> 38854

```
Thr Leu Thr Trp Val Arg Gly Ala Ala Ala Pro Ile Leu Gly Tyr Gly
1               5                   10                  15
Ala Phe Asn Ala Leu Leu Phe Val Ala Tyr Asn Arg Ser Leu Met Phe
            20                  25                  30
Met Asp Asp Ser Ile Lys Asp Pro Thr Asn Pro Leu Gly Val Ser Leu
        35                  40                  45
```

```
Tyr Lys Ile Trp His Val Gly Ala Ala Gly Gly Ala Ala Ser Trp Thr
    50                  55                  60
Leu Ser Ser Pro Thr Glu Phe Ile Lys Cys Arg Ala Gln Ile Asp Ser
65                  70                  75                  80
Arg Leu Gly Val Ser Ser Trp Thr Val Ala Lys Asp Ile Phe Arg Thr
                85                  90                  95
Arg Gly Leu Thr Gly Leu Tyr Phe Gly Gly Met Ile Thr Cys Ala Arg
            100                 105                 110
Asp Ser Ile Gly Tyr Gly Phe
        115
```

<210> 38855
<211> 375
<212> PRT
<213> A.fumigatus

<400> 38855

```
Val Glu Pro Gln Ser Gln Arg Asp Pro Ile Gly Leu Leu Ala Gly Trp
1               5                   10                  15
Ser Pro Asp Arg Trp Val Phe Tyr Met Ile Leu Leu Ala Gly Phe Glu
            20                  25                  30
Met Gln Glu Ile Thr Ile Pro Pro Leu Thr Thr Gly Thr Ile Pro Glu
        35                  40                  45
Asn Glu Lys Leu Ser Thr Arg Asp Asp Glu Lys Gly Thr Gln Asp Asp
    50                  55                  60
His Val Tyr Ile Ala Asp Thr Leu Pro Leu Arg Arg Gln Ile Pro Phe
65                  70                  75                  80
Ile Leu Thr Ile Cys Ser Ala Met Tyr Thr Asn Gln Leu Gly Leu Gly
                85                  90                  95
Gln Thr Met Asp Ile Val Arg Ile Ile Gly Asp Trp Tyr Gly Ile Thr
            100                 105                 110
Asn Ser Asn Glu Leu Ser Trp Leu Val Ala Gly Tyr Ser Leu Thr Ile
        115                 120                 125
Gly Thr Phe Val Leu Ile Ala Gly Arg Leu Gly Asp Asp Phe Gly His
    130                 135                 140
Lys Arg Met Phe Val Ile Gly Met Gly Trp Tyr Ala Leu Trp Thr Leu
145                 150                 155                 160
Val Cys Gly Leu Ala Val Tyr Ser Thr Gln Val Leu Phe Ile Phe Ala
                165                 170                 175
Arg Val Phe Gln Gly Met Gly Pro Ala Val Thr Leu Pro Asn Ala Ile
            180                 185                 190
Ala Ile Leu Gly Gln Ser Tyr Ala Pro Gly Pro Arg Lys Asn Met Ala
        195                 200                 205
Phe Ala Phe Phe Gly Gly Ser Ala Pro Phe Gly Ala Ile Ser Gly Phe
    210                 215                 220
Ala Thr Gly Gly Leu Phe Ala Leu Ala Trp Trp Pro Trp Ala Tyr Trp
225                 230                 235                 240
Ser Ala Ala Ile Ala Leu Thr Gly Leu Ala Val Phe Ala Val Trp Ser
                245                 250                 255
Ile Pro Pro Gln Pro Val Ser Ala Thr Ala Thr Thr Arg Thr Val Gly
            260                 265                 270
Gln Lys Ile Ala His Leu Asp Leu Ala Gly Cys Val Thr Gly Val Ala
        275                 280                 285
Ser Leu Val Leu Ile Asn Phe Ala Trp Asn Gln Ala Ala Gly Val Gly
    290                 295                 300
Trp Gln Glu Pro Tyr Val Tyr Val Cys Leu Ile Leu Gly Phe Leu Ala
```

305 310 315 320
Ala Ala Ala Phe Phe Trp Val Glu Leu His Trp Ser Glu Asp Pro Ile
325 330 335
Leu Pro Leu Ala Ala Phe Asn Ser Asp Ile Ala Phe Val Leu Gly Cys
340 345 350
Thr Ala Cys Gly Trp Ala Thr Ala Arg Ile Trp Val Phe Leu Gln Pro
355 360 365
Pro Ala Gly Arg Thr Thr Leu
370 375

<210> 38856
<211> 309
<212> PRT
<213> A.fumigatus

<400> 38856
Ala Pro Val Ser Arg Lys Lys Val Pro Gly Leu His Gln Ile Val Phe
1 5 10 15
Phe Gly Ala Thr Pro Pro Met Leu Gly Pro Phe Phe Met Glu Pro Glu
20 25 30
Val Arg Pro Pro Gln Thr Cys Pro His Ser Arg Pro Asp Pro Pro Ile
35 40 45
Glu Arg Pro Pro Thr Ala Gly Leu Tyr Pro Gly Arg Val Ile Leu Ile
50 55 60
Asn Ala Trp Pro Gly Ser Thr Asn His Asn Lys Gln Arg Pro Gly Phe
65 70 75 80
Val Thr Leu Asp Pro Trp Glu Lys Lys Ser Ser Thr Leu Leu Asn Asn
85 90 95
Tyr Tyr Gly Leu Thr Phe Thr Asp Cys Asp Asp Val Ile Val Asp Pro
100 105 110
Val Thr Gly Phe Val Trp Phe Thr Val Pro Tyr Tyr Ser Trp Trp Leu
115 120 125
Glu Val Ala Asp Thr Pro Pro Gln Leu Lys Ser Ala Thr Tyr Arg Phe
130 135 140
Asp Pro Ala Thr Gly Ser Thr Val Val Val Asn Asp Glu Met Arg Ser
145 150 155 160
Pro Asn Gly Ile Ala Leu Ser Pro Asp Arg Arg His Leu Tyr Ile Ser
165 170 175
Asp Thr Glu Ala Ala Gly Gln Ser Ala Pro Ile Ser Leu Asp Leu Pro
180 185 190
Ser Pro Gly Val Ala Gly Leu Leu Phe Asn Thr Thr Gly Lys Arg Thr
195 200 205
Ile Tyr Lys Phe Asp Leu Ile Asp Gln Gly His Ala Ile Ala Asn Lys
210 215 220
Arg Pro Ile His Tyr Asp Ala Ile Gly Thr Val Pro Asp Gly Leu Lys
225 230 235 240
Val Ala Arg Asn Gly Trp Val Val Thr Ala Ser Gly Asn Gly Leu Ser
245 250 255
Val Met Asp Glu Tyr Gly Glu Met Ile Ala Arg Val Gln Val Asn Phe
260 265 270
Thr Val Asn Asn Phe Val Trp Ala Asp Val Asp Asp Tyr Arg Glu Val
275 280 285
Trp Met Val Gly Gln Gly Gly Val Gly Arg Val Arg Trp Glu Leu Gln
290 295 300
Gly Gln Lys Ala Val
305

<210> 38857
<211> 333
<212> PRT
<213> A.fumigatus

<400> 38857
Tyr Glu Pro Pro Thr Glu Arg Ser Ser Thr Arg Pro Ser Arg Glu Ile
1 5 10 15
Asn Leu Asp Glu Pro Leu His Arg Asn Val Leu Lys Ala Leu Arg Lys
20 25 30
Ser Leu Glu Leu Gln Tyr Arg Asn Glu Asn Ala Gly Leu Trp Tyr Phe
35 40 45
Val Asp Pro Pro Pro Pro Tyr Pro Pro Tyr Gly Asn Leu Ser Tyr Ser
50 55 60
Asp Gly Met Tyr Gly Phe Ala Pro Phe Ala Ala Leu Tyr Gly Met Thr
65 70 75 80
Tyr Gly Asp Pro Gly Val Asn Leu Asp Ala Ala Leu Leu Gln Leu Asp
85 90 95
Leu Leu Tyr Thr Gln Ser Ile Glu Pro Ser Thr Gly Leu Ile Lys His
100 105 110
Gly Tyr Asp Ala Ser Arg Asp Ala Pro Trp Ala His Pro Ile Thr Gly
115 120 125
Ala Ser Pro Ile Val Trp Gly Arg Ser Leu Ala Trp Tyr Leu Ile Gly
130 135 140
Thr Val Asp Thr Leu Glu Ile Ile Ala Ser Arg Ser Gly Asp His Ser
145 150 155 160
Glu Asp Ala Arg Arg Thr Asp Lys Thr Val Gln Arg Ile Arg Glu Ile
165 170 175
Phe Gln Arg Leu Ala Arg Ala Thr Val Asp Ala Ile Glu Asp Ser Ala
180 185 190
Gly Lys Thr Gly Arg Tyr Ala Val Trp Gln Val Met Asp Arg Pro Gly
195 200 205
Glu Pro Gly Asn Phe Val Glu Ala Ser Ala Ser Ala Met Ile Ala Tyr
210 215 220
Val Leu Ala Lys Gly Val Arg Leu Gly Tyr Leu Pro Gly Arg Ser Pro
225 230 235 240
Ser Ser Glu Thr Asp Gly Lys His Arg Ala Ala Ser Ser Leu Trp Val
245 250 255
Gln Gly Pro Arg Pro Gly Phe Arg Asp Pro Val Gln Ser Gln Asp Val
260 265 270
Leu Ala Val Ala Arg Ala Leu Tyr Gln Asp Val Val Ala Gln Phe Val
275 280 285
Val Arg Arg His Glu Asp Asp Thr Leu Asp Phe Leu Gly Thr Ser Ile
290 295 300
Ile Ala Ser Leu His Glu Glu Lys Pro Tyr Tyr Glu Val Cys Phe Ser
305 310 315 320
Pro Phe Ser Arg Ser Asp Val Phe Val Phe Gly Leu Thr
325 330

<210> 38858
<211> 369
<212> PRT
<213> A.fumigatus

<400> 38858

```
Thr Leu Arg Phe Ser Gly Ile Ser Ser Gly Thr Ala Val Ser Leu Ser
1               5                  10                  15
Leu Cys Pro Thr Gly Leu Phe Gly Gly Leu Ser Val Pro Ser Gln Arg
            20                  25                  30
Thr Arg Ser Asp Arg Asp His Ile Cys Arg Arg Leu Arg Arg Gly Trp
        35                  40                  45
Asn Gly Pro Phe Val Ser Ala Ile Pro Thr Thr Leu Gly Asn Ala Thr
    50                  55                  60
Asn His Gly Arg Met Leu Val Thr Ile Arg Asp Gln Gly Leu Pro Leu
65                  70                  75                  80
Pro Ala Gly Ala Ile Leu Ile Ser Pro Trp Val Asp Leu Thr His Ser
                85                  90                  95
Phe Pro Ser Val Leu Ser Asp Ser Pro Gly Asp Tyr Ile Pro Pro Ser
            100                 105                 110
Gly Phe Arg Tyr Arg Pro Ser Ala Ala Trp Pro Pro Pro Asn Ala Asp
        115                 120                 125
Glu Leu Arg Ser Ile Lys Asp Ala Lys Gln Glu Ser Pro Glu Ser Ala
    130                 135                 140
Val Glu Lys Ala Val Pro Gly Glu Asp Thr Pro Ala Gln Glu Thr Ala
145                 150                 155                 160
Val Gln Gly Tyr Thr Val Glu Lys Asp Gly Ser Asp Arg Thr Glu Pro
                165                 170                 175
Thr Pro Ala Ala Leu Gln His Ser Glu Asp Asp Glu Thr Lys Leu Val
            180                 185                 190
Glu Ile Pro Ile Asp Gly His Thr Val Val Val Lys Asp Gln Ile Gln
        195                 200                 205
Met Tyr Thr Pro Asn His Leu Ile Ser His Pro Leu Val Ser Pro Val
    210                 215                 220
Leu Gln Pro Ser Leu Gly Gly Leu Pro Pro Leu Gln Ile Leu Val Gly
225                 230                 235                 240
Gly Gly Glu Arg Leu Arg Asp Glu Gln Phe Tyr Ile Ala His Lys Ala
                245                 250                 255
Ala Asn Pro Thr Ala Tyr Pro Pro Ser Asp Lys Thr Leu Asp Glu Tyr
            260                 265                 270
Asp Pro Lys Arg Glu Ile Leu His Lys Tyr Pro Gly Thr Tyr Val Gln
        275                 280                 285
Leu Gln Val Trp Asp Asp Leu Cys His Val Ala Pro Thr Leu Ser Phe
    290                 295                 300
Thr Arg Pro Ala Lys Tyr Met Tyr Arg Ser Ile Ala Gln Phe Gly Ala
305                 310                 315                 320
Trp Ala Leu Ala Cys Ser His Pro Ser Glu Ile Ala Ile Leu Asp Asp
                325                 330                 335
Asn Asp Ile Ser Ser Ile Ser Ser Ser Ser Glu Thr Asp Pro Arg Asp
            340                 345                 350
Ala Glu Thr His Gly Glu Val Phe Thr Thr Gly Leu Glu Gly Ala Ala
        355                 360                 365
Pro
```

<210> 38859
<211> 72
<212> PRT
<213> A.fumigatus

<400> 38859
Pro His Ala Asn Cys Ala Val Ser Tyr Ala Arg Ala Thr Glu Tyr Arg

```
1               5                   10                  15
Met Thr Ala Lys Leu Tyr Asp Leu Ala Glu Tyr Arg Leu Ala Pro Gln
            20                  25                  30
Phe Pro Phe Pro Cys Ala Leu Gln Asp Cys Leu Ala Ala Tyr Leu Phe
        35                  40                  45
Leu Leu Asn Glu His Asp Pro Thr Glu Ile Ile Phe Ala Gly Asp Ser
    50                  55                  60
Ala Gly Gly Gly Met Val Leu Ser
65                  70
```

<210> 38860
<211> 135
<212> PRT
<213> A.fumigatus

<400> 38860

```
Val Pro Leu Gln Gln Ala Leu Leu Asp Val Phe Lys Pro Val Ser Tyr
1               5                   10                  15
Arg Asn Met Ser Gly His Pro Ser Gly Thr Leu His Thr Val Cys Gln
            20                  25                  30
Val Glu Cys Ile Arg Cys Asn Asp Leu Pro Asp Ala Met Thr Asp Leu
        35                  40                  45
Leu Asp Ser Ala Met Gln Ile Ile Ser Ala Val Met Asp Phe Val Lys
    50                  55                  60
Tyr Cys Asp Gln Glu Asp Ser Ile Arg Gln Gln Tyr Thr Trp Ile Val
65                  70                  75                  80
Ser Pro Cys Asn Leu Ser Leu Ile Gln Leu Gln Met Pro Asn Leu Ser
                85                  90                  95
Gly Ser Thr Phe Leu Phe Tyr Thr Leu Gln Gln Gln Val Leu Leu Gln
            100                 105                 110
Leu His Pro Ile Thr Val Gln Cys Leu Ala Cys His Tyr His Val Pro
        115                 120                 125
Ser Arg Gly Arg Ile Tyr Pro
    130                 135
```

<210> 38861
<211> 160
<212> PRT
<213> A.fumigatus

<400> 38861

```
Tyr Leu His Arg Lys Ser His Arg Thr Lys Pro Thr Val His Ile Ser
1               5                   10                  15
Tyr Asp Glu Ala Ile Gln Ile Ile Arg Gln Phe Leu Asn Tyr Ala Ala
            20                  25                  30
Lys His Thr Val Glu Asp Ile Gln Ser Phe Thr Ala Gln Arg Val Pro
        35                  40                  45
Ala Pro His Trp Val Lys Thr Thr Lys Val Val Ile Pro Glu Asn Tyr
    50                  55                  60
Leu Ser Ser Ala Ala Thr Ala Leu Ile Lys Gln Leu Gly Pro Lys Gly
65                  70                  75                  80
Ile Ala Arg Val Gly Gly Asp Lys Trp Trp Gln Trp Arg Gly Pro Ala
                85                  90                  95
Glu Asp Leu Arg Gly Glu Trp Ile Glu Met Lys Ser Asp Tyr His Glu
            100                 105                 110
Arg Arg Arg Thr Asn Asn His Pro Ser Gly Lys Arg Ile Met Leu Tyr
```

```
        115                 120                 125
Leu His Gly Gly Ala Tyr Phe Phe Gly Ser Val Glu Thr His Arg Tyr
    130                 135                 140
Gln Leu Gln Arg His Ala Arg Lys Leu Lys Gly Arg Val Phe Ala Arg
145                 150                 155                 160
```

<210> 38862
<211> 390
<212> PRT
<213> A.fumigatus

<400> 38862

```
Cys Phe Leu Thr Val Ala Pro Arg Arg Asn Pro Arg Thr Leu Asn Gln
1               5                  10                  15
Val Pro Pro Glu Ile Leu Asp Asp Pro Glu Ile Gln Ala Ala Ile Glu
            20                  25                  30
Leu Leu Pro Lys Asn Tyr Ser Phe Glu Ile Pro Lys Thr Ile Tyr Arg
        35                  40                  45
Ile Arg Thr Ser Gly Ala Lys Arg Val Ala Leu Gln Phe Pro Glu Gly
    50                  55                  60
Leu Leu Ile Phe Ala Thr Thr Ile Ser Asp Ile Leu Thr Gln Phe Cys
65                  70                  75                  80
Pro Gly Thr Glu Thr Leu Ile Met Gly Asp Val Thr Tyr Gly Ala Cys
                85                  90                  95
Cys Ile Asp Asp Tyr Thr Ala Arg Ala Leu Gly Cys Asp Leu Leu Val
            100                 105                 110
His Tyr Ala His Ser Cys Leu Ile Pro Val Asp Val Thr His Ile Lys
        115                 120                 125
Thr Leu Tyr Ile Phe Val Asp Ile Ser Ile Asp Thr Ser His Leu Ile
    130                 135                 140
Ala Thr Leu Glu Arg Asn Phe Gln Pro Gly Lys Thr Ile Ala Thr Val
145                 150                 155                 160
Gly Thr Ile Gln Phe Asn Ala Thr Leu His Gly Leu Lys Pro Val Leu
                165                 170                 175
Glu Arg Ala Gly Phe Lys Val Val Ile Pro Gln Ile Ala Pro Leu Ser
            180                 185                 190
Lys Gly Glu Ile Leu Gly Cys Thr Ser Pro Gln Leu Ser Pro Thr Glu
        195                 200                 205
Ile Asp Ile Leu Leu Tyr Leu Gly Asp Gly Arg Phe His Leu Glu Ser
    210                 215                 220
Ala Met Ile His Asn Pro Thr Ile Pro Ala Tyr Arg Tyr Asp Pro Tyr
225                 230                 235                 240
Ser Arg Thr Leu Ser Arg Glu Thr Tyr Ser His Asp Glu Met His Ala
                245                 250                 255
Leu Arg Arg Asp Ala Ile Asn Thr Ala Lys Ser Ala Lys Lys Trp Gly
            260                 265                 270
Ile Ile Leu Gly Ser Leu Gly Arg Gln Gly Asn Pro Asn Thr Met Ala
        275                 280                 285
Met Ile Glu Asn His Leu Asn Glu Arg Gly Ile Pro Phe Val Asn Leu
    290                 295                 300
Leu Leu Ser Glu Ile Phe Pro Gly Lys Leu Ala Ser Met Ser Asp Val
305                 310                 315                 320
Glu Cys Trp Val Gln Ile Ala Cys Pro Arg Leu Ser Ile Asp Trp Gly
                325                 330                 335
Tyr Ala Phe Pro Arg Pro Leu Leu Thr Pro Tyr Glu Ala Leu Ile Ala
            340                 345                 350
```

```
Leu Gly Val Arg Glu His Trp Asp Ser Ala Asn Ser Gly Val Tyr Pro
        355                 360                 365
Met Asp Phe Tyr Ala Lys Glu Gly Leu Gly Arg Thr Lys Pro Gln Gln
    370                 375                 380
Ala Leu Gln Gly Ala Ala
385                 390
```

<210> 38863
<211> 182
<212> PRT
<213> A.fumigatus

<400> 38863

```
Leu Asp Ala Ile Ser Ala Thr Pro His Phe His Leu Phe His Thr Ser
1               5                   10                  15
Leu Thr Ser Arg Leu Thr Gln Leu Cys Ile Ser Ser Ile Asp Asn Ile
            20                  25                  30
Met Ala Phe Phe Phe Val Pro Arg Arg Val Phe Val Arg Ser Ser Ser
        35                  40                  45
Gly Leu Arg Ile Ser Ser Arg Ser Phe Ser Cys Phe Ser Val Leu Arg
    50                  55                  60
Asn Asp Lys Pro Ala Phe Ala Phe Gly Arg Gly Pro Ala Pro Pro Arg
65                  70                  75                  80
Leu Pro Lys Glu Glu Gln Glu Leu Phe Glu Glu Leu Gln Arg Arg Ser
                85                  90                  95
Thr Gly Ala Phe Ser Thr Pro Arg Ala Pro Pro Lys Val Tyr Gln Ser
            100                 105                 110
Pro His Ser Gln Pro Ala Ala Glu Arg Glu Pro Glu Phe Lys Ala Met
        115                 120                 125
Gly Lys Gly Glu Glu Leu His Pro Asp Leu Arg Gly Gly Leu Lys Pro
    130                 135                 140
Glu Phe Glu Gly Glu Lys Asn Pro Lys Thr Gly Glu Val Gly Gly Pro
145                 150                 155                 160
Lys Asn Glu Pro Leu Arg Trp Gly Ala Asp Gly Asp Trp Ser Tyr Gly
                165                 170                 175
Gly Arg Val Thr Asp Phe
            180
```

<210> 38864
<211> 187
<212> PRT
<213> A.fumigatus

<400> 38864

```
Arg Ser Leu Phe Leu Asn Ser Arg Lys Asn Cys Leu Ser Arg Pro Ala
1               5                   10                  15
Leu Ile Glu Pro Ala Gln Leu Ala Ala Asn Pro Gly Ala Asn Leu Gly
            20                  25                  30
His Leu Phe Gln Val Asp Ser Ser Met His Ala Lys Ser Met Gln Arg
        35                  40                  45
Val Asp Lys Ile Phe Gly Arg Tyr Ile Ala Ser Ser Thr Leu Arg Ile
    50                  55                  60
Arg Ala Ala Thr Glu Thr Ser Asp Thr Ala Val Glu Tyr Pro Asn Ala
65                  70                  75                  80
Val Leu Gln Ala His Tyr Gly Ile His Glu Gly Leu Ala Val Arg Ile
                85                  90                  95
```

```
Val Lys Met Lys Cys Gln Ile Cys Val Cys Asp Thr Gly Ser Leu Glu
            100                 105                 110
Cys Leu Gln Glu Leu Lys Cys Pro Trp Ser Arg Ser His Thr Ser Gly
        115                 120                 125
Val Gly Asn Arg His Phe Ile Ser Ala His Phe Lys Lys Cys Ser Arg
    130                 135                 140
Asp Val Arg Asp Phe Gly Gly Gly Asn Ile Trp Thr Phe Ile Trp Ala
145                 150                 155                 160
Ala Gln Arg His Arg Asn Ile Ser Ser Asp Pro Asp Ile Phe Arg Leu
                165                 170                 175
Gly Gln Arg Tyr Asp Gly Ala Asp Pro Leu Glu
            180                 185
```

<210> 38865
<211> 203
<212> PRT
<213> A.fumigatus

<400> 38865

```
Ile Met Asn Asp Val Thr Met His Lys His Ala Ser Ile Phe Ala Lys
1               5                   10                  15
Pro Leu Ala Glu Arg Asp Ala Pro Gly Tyr Arg Asp Leu Ile Tyr Arg
            20                  25                  30
Pro Gln Asp Leu Lys Ser Ile Lys Ser Ser Ile His Gln Gly Ser Arg
        35                  40                  45
Ala Val Ala Ala Ala Thr Glu Ala Ala Ser Thr Pro Ala Ala Asp Gly
    50                  55                  60
Glu Ser Pro Ala Pro Asn Ala Gly Thr Thr Ser Lys Asn Ala Val Leu
65                  70                  75                  80
Val Leu Pro Lys Thr Glu Asp Val Ile Pro Pro Lys Ala Ile Val Asn
                85                  90                  95
Ser Ala Gln Leu Glu Lys Glu Leu Ile Arg Met Phe Ala Asn Ala Val
            100                 105                 110
Met Phe Asn Pro Ile Pro Gln Arg Gly Phe Gly Pro Ala Phe Pro Met
        115                 120                 125
Ile Ser Asp Gly Gly Ser Arg Glu Ser Thr Gln Val Pro Glu Pro Asp
    130                 135                 140
Glu Gly Gly Ile Ile Lys Asp Thr Leu Glu Met Phe Glu Asp Val Glu
145                 150                 155                 160
Gln Ala Val Thr Arg Trp Arg Ala Ala Glu Arg Thr Ala Asp Glu Leu
                165                 170                 175
Ala Ser Lys Ser Ile Leu Ser Leu Arg Arg Gly Ser Thr Ser Asp Leu
            180                 185                 190
Asn Thr Asp Ser Ala Asp Glu Val Lys Gly Pro
        195                 200
```

<210> 38866
<211> 112
<212> PRT
<213> A.fumigatus

<400> 38866

```
Leu Ala Leu Ser Phe Gly His Thr Ala Phe Pro Trp Ile Met Ala Phe
1               5                   10                  15
Arg Pro Arg Leu Asn Leu Phe Ser Thr Phe Arg Ala Ala Pro Pro Ala
            20                  25                  30
```

```
Arg Leu Phe Ala Thr Glu Ala Arg Leu Thr Ser Asp His Val Arg Ile
        35                  40                  45
Val Glu Val Gly Pro Arg Asp Gly Leu Gln Asn Glu Lys Lys Ser Ile
    50                  55                  60
Pro Leu Glu Thr Lys Leu Gln Leu Ile Glu Lys Leu Ala Lys Thr Gly
65                  70                  75                  80
Val Thr Thr Ile Glu Ala Gly Ser Phe Val Pro Ala Lys Trp Val Pro
                85                  90                  95
Gln Val Tyr Thr Ser Cys Leu Ser Ala Val Leu Phe Glu Ser Ser Ala
            100                 105                 110
```

<210> 38867
<211> 281
<212> PRT
<213> A.fumigatus

<400> 38867

```
Ser Phe Leu Ser Asp Arg Ser Gly Ser His Gln Met Ala Ser Thr Ala
1               5                   10                  15
Glu Ile Cys Glu His Leu Leu Arg Ser Pro Pro Gln Ser Gln His Ala
            20                  25                  30
Ile Ala Tyr Asn Tyr Leu Val Pro Asn Val Lys Gly Leu Glu Ser Leu
        35                  40                  45
Ile Lys Val Met Asp Ala Thr Cys Ser Thr Ala Glu Thr Pro Gly Ser
    50                  55                  60
Ala Thr Lys Pro Pro Thr Thr Thr Glu Ile Ser Leu Phe Ala Ala Ala
65                  70                  75                  80
Thr Glu Ala Phe Ser Lys Ala Asn Thr Asn Cys Thr Ile Ala Glu Ser
                85                  90                  95
Leu Glu Arg Ile Arg Pro Ile Val Ala Leu Ala Lys Thr Lys Asp Ile
            100                 105                 110
Arg Val Arg Gly Tyr Val Ser Val Ala Leu Gly Cys Pro Tyr Glu Gly
        115                 120                 125
Pro Asp Val Pro Pro Ser Lys Val Ala Asp Ile Thr Ala Thr Leu Leu
    130                 135                 140
Glu Met Gly Ala Asp Glu Val Ser Val Ala Asp Thr Thr Gly Met Gly
145                 150                 155                 160
Thr Ala Pro Arg Thr Leu Glu Leu Leu Gln Ala Leu Lys Ala Ala Gly
                165                 170                 175
Ile Ala Asn Thr Asp Leu Ala Leu His Phe His Asp Thr Tyr Gly Gln
            180                 185                 190
Ala Leu Val Asn Thr Ile Val Gly Leu Glu His Gly Ile Arg Ile Phe
        195                 200                 205
Asp Ser Ser Val Gly Gly Leu Gly Gly Cys Pro Tyr Ser Lys Gly Ala
    210                 215                 220
Thr Gly Asn Val Ser Thr Glu Asp Leu Ile His Thr Leu His Gly Leu
225                 230                 235                 240
Gly Met His Thr Gly Ile Asn Leu Glu Glu Met Ser Lys Ile Gly Ser
                245                 250                 255
Trp Ile Ser Ser Glu Leu Gly Arg Phe Asn Glu Ser Arg Ala Gly Lys
            260                 265                 270
Ala Ile Leu Ala Arg Ile Gln Glu Gln
        275                 280
```

<210> 38868
<211> 94

<212> PRT
<213> A.fumigatus

<400> 38868
Lys Glu Ala Val Leu Pro Asn Pro Asp Pro Ala Ala Glu Ser Ala Thr
1 5 10 15
Ala Ala Phe Ile Arg Glu Arg Thr Pro Tyr Met Val Pro Thr Tyr Val
20 25 30
Arg Pro Thr Pro Val Met Ile Lys Gly Gln Gly Cys Tyr Val Trp Asp
35 40 45
Met Glu Asn Arg Arg Tyr Leu Asp Leu Thr Ala Gly Ile Ala Val Asn
50 55 60
Ser Leu Gly His Cys Asp Pro Glu Ile Ala Lys Ile Ile Ala Glu Gln
65 70 75 80
Val Arg Ile Leu Gly Leu Ile Asp His Thr Thr Arg Gly Leu
85 90

<210> 38869
<211> 182
<212> PRT
<213> A.fumigatus

<400> 38869
Gly Leu Glu Ala Asp Trp Val Leu Arg Phe Trp Arg Tyr Val Ser Leu
1 5 10 15
Phe Leu Pro Phe Leu Thr Arg Ala Ala Leu Thr Asn Arg Arg Ala Asp
20 25 30
Ser Cys Lys Phe Leu His Ala Arg Glu Asp Tyr Lys Gln Gly Trp Glu
35 40 45
Leu Asp Arg Glu Trp Glu Ile Gly Thr Lys Gly Lys Gln Leu Ser Gly
50 55 60
Arg Val Val Ser Lys Arg Ser Gly Asp Ala Lys Thr Ala Glu Asp Asp
65 70 75 80
Glu Asp Asp Asp Asp Glu Glu Leu Leu Glu Ser Ile Pro Phe Ala Cys
85 90 95
Ile Ile Cys Lys Ser Ser Tyr Lys Ser Pro Ile Val Thr Lys Cys Gly
100 105 110
His Tyr Phe Cys Glu Ser Cys Ala Leu Gln Arg Tyr Arg Lys Asn Pro
115 120 125
Ser Cys Ala Ala Cys Gly Ala Gly Thr Gly Gly Val Phe Asn Val Ala
130 135 140
Lys Lys Leu Asn His Leu Leu Asp Lys Lys Arg Glu Arg Ala Arg Lys
145 150 155 160
Leu Arg Glu Gln Ala Ile Ala Glu Gly Glu Glu Val Ser Ser Asp Glu
165 170 175
Glu Gly Asp Glu Glu Ser
180

<210> 38870
<211> 269
<212> PRT
<213> A.fumigatus

<400> 38870
Met Met Cys Phe Leu Leu Ala Ser Ile His Gly Ser Tyr Cys Pro Arg
1 5 10 15

```
His Ser Thr Ile Val Leu Ser Lys Lys Leu Phe Val Gln Ile Lys Met
            20                  25                  30
Ala Glu Glu Thr Gln Gly Ala Asp Ala Val Pro Gln Ile Ser Phe Lys
        35                  40                  45
Lys Arg Thr Asn Lys Ala Lys Ala Asn Phe Arg Lys Lys Pro Asp Thr
    50                  55                  60
Pro Pro Pro Ala Ser Asp Ser Asp Ser Asp Phe Thr Ser Ser Asp Asp
65                  70                  75                  80
Glu Glu Gly Arg Arg Ile Lys Arg Arg Arg Lys Asn Ala Ala Val Thr
                85                  90                  95
Ala Ser Ser Thr Thr Ala Gly Pro Arg Arg Asn Val Val Glu Asp Gln
            100                 105                 110
Pro Ala Thr Glu Thr Ala Ala Ile Pro Leu Thr Ser Ser Asn Asp Ala
        115                 120                 125
Thr Lys His Ser Asn Trp Tyr Asp Glu Glu Leu Ser Glu Lys Asn Leu
    130                 135                 140
Leu Gly Thr Thr Arg Ala Arg Pro Ala Ser Asn Thr Gln Ser Ala Pro
145                 150                 155                 160
Asp Gly Thr Tyr Lys Gly Ala Ala Asn Tyr Ser Ser Phe Ile Gln Lys
                165                 170                 175
Asn Pro Asn Ala Pro Thr Lys Gln Phe Gly Pro Ile Lys Ala Pro Thr
            180                 185                 190
Asn Val Arg Thr Val Thr Val Met Asp Phe Ala Pro Asp Val Cys Lys
        195                 200                 205
Asp Trp Lys Gln Thr Gly Phe Cys Gly Phe Gly Gly Met Tyr Leu Phe
    210                 215                 220
Phe Phe Leu Phe Ser Leu Glu Gln Leu Leu Leu Thr Val Ala Gln Ile
225                 230                 235                 240
Pro Ala Asn Phe Phe Thr Leu Glu Arg Thr Thr Asn Arg Ala Gly Ser
                245                 250                 255
Trp Thr Glu Asn Gly Arg Leu Ala Pro Lys Ala Ser Asn
            260                 265
```

<210> 38871
<211> 384
<212> PRT
<213> A.fumigatus

<400> 38871

```
Glu Glu Glu Glu Cys Pro Gln Glu Lys Ser Val Ser Leu Glu Arg Pro
1               5                   10                  15
Leu Trp Leu Thr Ala Ala Gly Leu Arg Val His Glu Ile Gly Met Gly
            20                  25                  30
Gln Asp Ser Pro Lys Ile Arg Ala Pro Thr Glu Gly His Ser Leu Phe
        35                  40                  45
Glu Glu Leu Ala Glu Leu Glu Gly Gly Glu Asp Glu Asp Gly Thr Phe
    50                  55                  60
Gly Ala Asn Ser Gln Thr Ser Thr Pro Arg Met Arg Leu Thr Ala Asp
65                  70                  75                  80
Ser Arg Arg Pro Ser Glu Ala Ile Leu Asp Val Pro Ala Lys Pro Ala
                85                  90                  95
Met Val Asp Ser Gly Val Met Thr Asp Pro Trp Gln Pro Thr Glu Ser
            100                 105                 110
Ala Asn Pro Val Asn Ala Gly Val Glu Glu Ala Leu Pro Val Ala Pro
        115                 120                 125
Val Thr Pro Thr Lys Ala Thr Val Pro Val Ala Glu Ala Gly Met Ala
```

```
    130                 135                 140
Ile Lys Glu Pro Pro Lys Leu Val Asn Ser Ala Thr Gln Trp Thr Pro
145                 150                 155                 160
Leu Arg Ser Gly Ala Glu Ser Asn Gly Asp Gln Val Ser Ser Val Pro
                165                 170                 175
Thr Pro Pro Lys Met Ala Trp Asp Asp Ala Ser Gly Ala Glu Gly Glu
            180                 185                 190
Thr Thr Arg Val Pro Thr Pro Pro Val Ala Lys Pro Asp Phe Ser Pro
        195                 200                 205
Ile Ser Tyr Gln Glu Thr Ser Pro Val Ala Pro Val Leu Pro Gln Leu
    210                 215                 220
Thr Thr Ser Tyr Phe Ile Gly Gly Val Thr Glu Pro Val Ala Leu Pro
225                 230                 235                 240
Ser Ser Leu Pro Arg Glu Leu Ser Leu Ser Ser Ile Ser Ser Gln Ser
                245                 250                 255
Thr Glu Pro Leu Met Ala Gln Leu Pro Glu Pro Glu Gln Val Tyr Ser
            260                 265                 270
Pro Gln Met Val Ile Ser Ala Val Phe Ser Glu His Thr Val Pro Ile
        275                 280                 285
Ala Val Thr Leu Pro Glu Pro Glu Pro Leu Pro Val Leu Ser Phe Ala
    290                 295                 300
Glu Gln Ala Thr Asn Thr Glu Thr Pro His Leu Lys Val Ser Thr Ile
305                 310                 315                 320
Phe Ser Glu His Thr Leu Pro Val Ala Ala Ser Leu Pro Glu Pro Glu
                325                 330                 335
Pro Val Pro Ile Ile Ser Val Ala Asp His Ser Thr Ser Thr Glu Asn
            340                 345                 350
Ser Gly Pro Arg Asp Ile Phe His Thr Pro Leu Ser Arg Pro Lys Leu
        355                 360                 365
Ser Gln Leu Phe His Pro Asn His Phe Ser Gly Thr Arg Asn Pro Phe
    370                 375                 380
```

<210> 38872
<211> 588
<212> PRT
<213> A.fumigatus

```
<400> 38872
Ser Ser Glu Leu Gln Ser Pro Leu Ser Pro Val Leu Phe Ala Ser Gln
1                   5                   10                  15
Ala Thr Asn Ser Pro Ser Lys Val Ser Val Pro Ser Arg Lys Gln Arg
            20                  25                  30
Asn Gln Pro Ser Ser Arg Val His Asp Ile Glu Phe Ala Thr Glu Ile
        35                  40                  45
Ser Thr Ser Leu Leu Ala Gln Val Arg Gln Leu Gln Ala Met Leu Ala
    50                  55                  60
Glu Arg Glu Glu Ala Leu Lys Asn Ala Asn Leu Glu Lys Ser Arg Leu
65                  70                  75                  80
Glu Leu Glu Ala Glu Gly Tyr Ala Gln Arg Ile Arg Ala Leu Asp Glu
                85                  90                  95
Ser Glu Glu Arg Tyr Lys Asp Glu Asn Trp Asn Leu Glu Thr Arg Thr
            100                 105                 110
His Glu Leu Met Thr Ala Met Lys Glu Ala Ala Asp Arg Glu Asn Arg
        115                 120                 125
Leu Asn Ser Ala Leu Gly Thr Val Thr Ser Glu Lys Asn Ala Ile Glu
    130                 135                 140
```

```
Arg Glu Leu Glu Glu Val Lys Gln Ala Asn Ala Arg Leu Ile Glu Glu
145                 150                 155                 160
Gln Ala Ala Ala Gln Lys Ala Asn Asp Ala Glu Ile His Leu Leu Arg
                165                 170                 175
Arg Asn Leu Asn Ala Gln Asp Ala Glu Lys Leu Ala Leu His Lys Lys
            180                 185                 190
Leu Glu Glu Leu Asn Ser Gln Asn Glu Glu Leu Ala Lys Val Val Thr
        195                 200                 205
Met Arg Leu Arg Gln Gln Glu Ala Gln Ala Thr Leu Glu Val Pro Arg
    210                 215                 220
Asp His His Ser Ser Asp Asp Asp Gln Gly Thr Pro Glu Asn Ser Pro
225                 230                 235                 240
Pro Pro Ser Pro Asn Lys Phe Thr Pro Arg His Asn His Leu Glu Thr
                245                 250                 255
Glu Thr Leu Arg Ser Ser Leu Gly His Ala His Arg Met Ile Gln Asn
            260                 265                 270
Leu Lys Ser Thr Ile His Arg Glu Lys Thr Glu Lys Ile Glu Leu Lys
        275                 280                 285
Arg Met Leu Gln Glu Ala Arg Asp Glu Ile Glu Gln Arg Arg Arg Glu
    290                 295                 300
Ala Val Ala Pro Ala Gly Pro Ser Thr Lys Arg Gln Lys Thr Arg Pro
305                 310                 315                 320
Asp Ala Ser Arg Lys Pro Ala Arg Pro Asp Leu Leu Gly Ala Gly Arg
                325                 330                 335
Lys Gly Lys Thr Glu Ile Glu Ile Gln Asp Ala Glu Trp Glu Asp Asn
            340                 345                 350
Val Val Asp Ala Thr Pro Thr Arg His Ala Ser Thr Ser Leu Thr Arg
        355                 360                 365
Asp Arg Ser Gly Glu Glu Ser Ser Ala Tyr Pro Ser Asp Ala Tyr Gln
    370                 375                 380
Thr Ala Thr Glu Ala Asp Asp Ala Phe Glu Thr Ala Asn Glu Arg Glu
385                 390                 395                 400
Thr Ala Thr Glu Ser Glu Ala Phe Gln Thr Gly Ile Glu Ser Met Ala
                405                 410                 415
Asp Gly Ser Ser Asp Thr Asp Glu Leu Thr Glu Thr Glu Glu Thr Val
            420                 425                 430
Gln Arg Thr Pro Arg Leu Arg Val Ser Ser Ser Leu Ile Met Ala Lys
        435                 440                 445
Ala Arg Asp Arg Ser Ser Tyr His Ser Thr Ala Ser Thr Ser Ala Asp
    450                 455                 460
Glu Asp Glu Gly Val Asp Glu Val Leu Ala Ser Pro Ser Gln Ala His
465                 470                 475                 480
Ala Pro Arg Tyr Arg Val Arg Lys Lys Arg Asn Val Leu Arg Lys Asn
                485                 490                 495
Pro Ser Val Trp Arg Gly Pro Tyr Gly Leu Gln Gln Pro Ala Phe Glu
            500                 505                 510
Cys Thr Arg Leu Ala Trp Asp Arg Ile Arg Pro Arg Phe Gly Leu Pro
        515                 520                 525
Gln Lys Asp Thr Val Phe Ser Arg Asn Leu Gln Asn Ser Lys Ala Ala
    530                 535                 540
Arg Met Arg Thr Glu His Leu Val Leu Thr Pro Arg Arg Leu Leu Pro
545                 550                 555                 560
Val Cys Val Leu Arg Leu Ile Arg Asp Asp Pro Arg Arg Pro Phe Trp
                565                 570                 575
Thr Cys Arg Pro Ser Pro Arg Trp Ser Ile Gln Ala
            580                 585
```

<210> 38873
<211> 211
<212> PRT
<213> A.fumigatus

<400> 38873
Asp Gly Cys Phe Pro His Ser Val Lys Phe Asp Arg Asn His Pro Val
1 5 10 15
Val His Arg Thr Pro Ala Gly Asn Lys Ile Thr Asp Ala Asp Arg Gln
20 25 30
Asp Leu Thr Ser Arg Met Ala Ser Met Asp Asp Pro Phe Val Ser Lys
35 40 45
Thr Glu Glu Arg Val Pro Arg Asp Ala His Arg Tyr Ser Ser Phe Asp
50 55 60
Thr Gln Leu Phe Ser Leu Asn Ala Pro Ser Pro Ala Gln Ala Lys Arg
65 70 75 80
Ala Leu Glu Ala His Leu Ala Glu Thr Glu Arg Arg Leu Glu Glu Ala
85 90 95
Ser Lys Leu Gly Thr Ala Leu Ile Glu Gln Gln Arg Glu Leu Glu Glu
100 105 110
Lys Leu Lys Glu Val Glu Gln Gln Gln Asp Glu Asn Gln Ile Gly Pro
115 120 125
Asp Leu Arg Gln Lys Leu Val Glu Leu Glu Arg Glu Tyr Asn Glu Ile
130 135 140
Gly Arg Glu Thr Ala Arg Ala Leu Leu Ala Pro Lys Arg Leu Ala Gly
145 150 155 160
Gly Asp Asp Gly His Leu Gly Thr Pro Ser Leu Asp Gln Lys Val Lys
165 170 175
Pro Gln Arg Phe Leu Tyr Arg Arg Gln Asp Thr Asp Leu Leu Asn Tyr
180 185 190
Ser His Arg Ser Val Pro Ser Tyr Ser Pro Val Lys Arg Pro Thr Leu
195 200 205
Pro Ala Lys
210

<210> 38874
<211> 101
<212> PRT
<213> A.fumigatus

<400> 38874
Ser Trp Pro Arg Leu Val Thr Val Leu His Ile Thr Ala Pro His Pro
1 5 10 15
Leu Pro Gln Met Lys Met Lys Val Ser Met Lys Phe Ser Pro Leu Pro
20 25 30
Val Lys His Thr Leu Pro Asp Thr Gly Leu Gly Arg Arg Gly Met Ser
35 40 45
Ser Gly Lys Ile Arg Gln Phe Gly Glu Ala Pro Met Ala Tyr Ser Ser
50 55 60
Arg Pro Ser Ser Ala Arg Asp Trp His Gly Thr Gly Phe Ala Gln Asp
65 70 75 80
Ser Gly Ser His Arg Arg Thr Gln Ser Phe Arg Gly Thr Cys Arg Thr
85 90 95
Arg Arg Arg Arg Gly
100

<210> 38875
<211> 365
<212> PRT
<213> A.fumigatus

<400> 38875
Thr Ser Ile Arg Pro Pro Phe Pro Leu Ser Met Ala Ser Ala Asp Gly
1 5 10 15
Ala Ser Pro His Val Lys Ser Pro Thr Glu Arg Asn Leu Lys Gln Val
20 25 30
Val Leu Gly Asp Leu Leu Phe Lys Thr Trp Tyr Gln Ser Ile Tyr Pro
35 40 45
Glu Asp Leu Val Ser Lys Asp Thr Asp Arg Leu Tyr Val Cys Cys Trp
50 55 60
Cys Phe Cys Tyr Ser Cys Asp Val Asn Ser His Val Lys His Met Arg
65 70 75 80
Leu Cys Glu His Arg Thr Thr Pro Pro Gly Ala Gln Val Tyr Glu His
85 90 95
Gly Gly Tyr Ser Val Trp Glu Val Asp Gly Asp Glu His Lys Leu Tyr
100 105 110
Ala Gln Asn Leu Ser Leu Phe Ala Lys Leu Phe Leu Asp His Lys Ser
115 120 125
Val Phe Phe Asp Val Ala Thr Phe Leu Tyr Tyr Ile Leu Thr Phe Thr
130 135 140
Asp Pro Gly Asn Pro Glu Lys Tyr His Ile Leu Gly Phe Phe Ser Lys
145 150 155 160
Glu Lys Leu Ser Trp Asp Ala Asn Asn Leu Ala Cys Ile Leu Val Phe
165 170 175
Pro Pro Tyr Gln His Lys Gln Leu Gly Lys Leu Leu Met Gly Val Ser
180 185 190
Tyr Lys Ile Ser Ala Trp Glu Glu Asp Ala Gly Phe Ile Gly Gly Pro
195 200 205
Glu Lys Pro Leu Ser Asp Met Gly Ala Arg Ser Tyr Ser Arg Phe Trp
210 215 220
Gln Glu Arg Ile Gly Arg Arg Leu Leu Leu Asp Asp Thr Asp Ala Ser
225 230 235 240
Gly Gln Glu Thr Gln Pro Ala Arg Glu Thr Arg Lys Arg His Ser Ala
245 250 255
Thr Phe Met Thr Val Arg Asp Ile Gly Glu Ala Thr Gly Met Leu Thr
260 265 270
Glu Asp Val Ile Thr Ala Leu Arg Gly Met Gly Val Val Gln Pro Glu
275 280 285
Thr Pro Ser Lys Arg Arg Lys Ala Lys Gln Ala Ala Asp Val Pro Asp
290 295 300
His Tyr Ala Thr Ile Arg Lys Ser Asp Leu Leu Arg Trp Met Glu Asn
305 310 315 320
Arg Lys Val Ser Leu Arg Asp Pro Val Arg Asp Glu Arg Phe Val Gly
325 330 335
Arg Trp Ala Leu Arg Gly Thr Pro Asp Glu Asn Asp Ser Ile Ala Gly
340 345 350
Glu Gly Glu Glu Glu Glu Glu Glu Asp Ser His Thr Ala
355 360 365

<210> 38876
<211> 111

<212> PRT
<213> A.fumigatus

<400> 38876
Ser Gln His Arg Val Leu Pro Leu Asp Leu Ile Phe Leu Leu Gly Arg
1 5 10 15
Leu Gly Ile Ala Val Val Leu Ala Leu Leu Phe Leu Gly Phe Ala Phe
20 25 30
Ala Asn Val Gly Leu Pro Leu Leu Leu Leu Leu Phe Leu Leu Ala Leu
35 40 45
Val Leu Leu Val Leu Leu Leu Leu Leu Leu Leu Leu Phe Phe Leu Phe
50 55 60
Leu Leu Leu Pro Thr Ser Leu Ser Ser Gln Pro Cys His Arg Arg Pro
65 70 75 80
Ala Ser Pro Cys Arg Cys His Gln Arg Arg Cys Pro Tyr Arg Leu Glu
85 90 95
Arg His Pro Trp Gln Ile Ser Val Met Val Ser Asp Leu Ala Ile
100 105 110

<210> 38877
<211> 89
<212> PRT
<213> A.fumigatus

<400> 38877
Leu Phe Phe Arg Val Ile Leu Arg Lys Leu Arg Arg Phe Ala Met Ala
1 5 10 15
Asp Tyr Leu Leu Phe Glu Gly Pro Met Gly Tyr Ser Ile Phe Lys Val
20 25 30
Thr His Gln Gly Asp Ser Val Gly Asn Arg Leu Lys Glu Val Gln Asp
35 40 45
Gly Val Asn Asp Leu Ala Lys Phe Gly Lys Met Val Glu Leu Ala Ser
50 55 60
Phe Leu Pro Phe Glu Tyr Val Ser Asp His Leu Phe Asn Phe Phe Ser
65 70 75 80
Phe Lys Cys Val Tyr Ala Asp Lys Phe
85

<210> 38878
<211> 439
<212> PRT
<213> A.fumigatus

<400> 38878
Met Ile Leu Gln Ser Ser Ala Lys Trp Ser Ser Ser Pro Val Ser Cys
1 5 10 15
Arg Leu Ser Met Phe Leu Thr Ile Tyr Ser Ile Phe Ser Pro Ser Asn
20 25 30
Ala Tyr Met Leu Thr Asn Ser Arg Asn Asn Lys Gln Ala Leu Ser Glu
35 40 45
Ile Asn Asp Val Ser Glu Gly Val Ala Ser Asp Thr Leu Ile Asn Phe
50 55 60
Leu Glu Leu Asn Leu Pro Lys Ala Ser Lys Lys Lys Lys Ile Val Leu
65 70 75 80
Gly Leu Ala Asp Lys Ala Leu Ala Ser Ser Ile Lys Ser Ala Phe Pro
85 90 95

```
Phe Val Asp Cys Glu Thr Gly Asp Thr Ser Glu Val Val Gln Asp Met
            100                 105                 110
Leu Arg Gly Ile Arg Leu His Ala Thr Lys Leu Leu Lys Gln Leu Arg
        115                 120                 125
Glu Gly Asp Met Asp Thr Ala Gln Leu Gly Leu Gly His Ala Tyr Ser
    130                 135                 140
Arg Ala Lys Val Lys Phe Ser Val Gln Arg Asp Asp Asn His Ile Ile
145                 150                 155                 160
Gln Ala Ile Ala Ile Leu Asp Gln Leu Asp Lys Ala Ile Asn Thr Phe
                165                 170                 175
Ser Met Arg Val Arg Glu Trp Tyr Ser Trp His Phe Pro Glu Leu Val
            180                 185                 190
Lys Ile Val Ser Asp Asn Gln Arg Tyr Ala Gln Ile Ala Leu Phe Val
        195                 200                 205
Lys Asp Lys Lys Thr Leu Thr Asp Glu Ser Leu His Asp Leu Ala Ala
    210                 215                 220
Leu Val Asp Asp Asp Glu Gly Val Ala Gln Ser Ile Ile Asp Ala Ala
225                 230                 235                 240
Lys His Ser Met Gly Gln Glu Ile Ser Glu Ser Asp Met Glu Asn Val
                245                 250                 255
Ile Ala Phe Ala Gln Arg Val Val Ser Leu Ser Lys Tyr Arg Lys Ser
            260                 265                 270
Leu His Ala Tyr Leu Val Ser Lys Met Ser Val Val Ala Pro Asn Leu
        275                 280                 285
Ala Ala Leu Ile Gly Glu Ile Val Gly Ala Arg Leu Ile Ser His Ala
    290                 295                 300
Gly Ser Leu Thr Asn Leu Ser Lys Tyr Pro Ala Ser Thr Val Gln Ile
305                 310                 315                 320
Leu Gly Ala Glu Lys Ala Leu Phe Arg Ala Leu Lys Thr Lys Gly Asn
                325                 330                 335
Thr Pro Lys Tyr Gly Leu Leu Tyr His Ser Ser Phe Ile Gly Arg Ala
            340                 345                 350
Gly Pro Lys Asn Lys Gly Arg Ile Ser Arg Phe Leu Ala Asn Lys Cys
        355                 360                 365
Ser Ile Ala Ser Arg Ile Asp Asn Phe Ser Glu Gln Pro Ser Thr Lys
    370                 375                 380
Phe Gly Glu Val Leu Lys Lys Gln Val Glu Glu Arg Leu Glu Phe Tyr
385                 390                 395                 400
Ala Ser Gly Ala Pro Pro Thr Lys Asn Glu Val Ala Met Val Cys Trp
                405                 410                 415
Ile Ser Ser Met Lys Ile Leu Tyr Gly Gln Val Thr Asn His His Arg
            420                 425                 430
Asn Leu Pro Trp Met Pro Phe
        435
```

<210> 38879
<211> 81
<212> PRT
<213> A.fumigatus

<400> 38879

```
Ser Arg Leu Arg Val Gly Gln Leu Ile Cys Tyr His Ser Met Lys Glu
1               5                   10                  15
Leu His Ser Ile Leu Lys Thr Arg Ala Asp Ser Thr Ile Tyr Ser Gly
            20                  25                  30
Arg Glu Leu Arg Glu Ile Asn Phe Asn Thr Gly Leu Tyr Ile Gly Gly
```

```
        35                  40                  45
Phe Pro Ala Met Asp Phe Phe Gly Asp Gly Ser Phe Tyr Leu Leu Asp
    50                  55                  60
Ala Pro Gly Val Ser Ile Ile Ser Phe Leu Val Gln Ser Gly Ser Lys
65                  70                  75                  80
Tyr
```

<210> 38880
<211> 78
<212> PRT
<213> A.fumigatus

<400> 38880

```
Met Leu Lys Ala Pro His Asp Ala Asp Ala Met His Asp Arg Leu Tyr
1               5                   10                  15
Ile Gln Lys Pro Leu Gly Phe Ser Tyr Phe Pro Asn Glu Ile Ile Pro
            20                  25                  30
Ala Pro Lys Ala Trp Val Ser Thr Thr Gly Asn Leu Val Phe Trp Arg
        35                  40                  45
Gln His Asp Lys Val Arg Leu Asn Ile Lys Gly Leu Leu Val Ile Cys
    50                  55                  60
Tyr Arg Val Gly Ile Ser Pro His Leu Lys Asp Pro Thr Thr
65                  70                  75
```

<210> 38881
<211> 93
<212> PRT
<213> A.fumigatus

<400> 38881

```
Thr Lys Gln Gly His Ala Gln Ile Ala Arg Ser Ala Glu Arg Glu Leu
1               5                   10                  15
Leu Pro Val Glu Thr Lys Asp Lys Leu Ser Asn Gly Asn Ile Gly Asn
            20                  25                  30
Ser Ile Phe Glu Val Leu Gln Lys Ser Pro Thr Ala Ser Val Leu Pro
        35                  40                  45
Thr Leu Arg Phe Pro Leu Ile Arg Phe Ile Arg Glu Lys Val Tyr Asn
    50                  55                  60
Phe Gln Gln Thr Phe Val Met Arg Gln Asn Tyr Lys Tyr Val Ile Thr
65                  70                  75                  80
Cys Val Lys Arg Asp His Phe Ala Asp Ser Arg Leu Arg
                85                  90
```

<210> 38882
<211> 257
<212> PRT
<213> A.fumigatus

<400> 38882

```
Thr Ser His Ser Pro Lys Leu Leu His Cys Leu Arg Val Ser Ile Phe
1               5                   10                  15
Val Ala Lys Gln Leu Trp Leu Leu Glu Pro Val Gln Ala Gly Ile Gly
            20                  25                  30
Leu Lys Thr Ala Arg Gln Leu Leu Lys Leu His Leu Ser His Leu Ile
        35                  40                  45
```

```
Leu Thr Val Arg Asn Val Ser Lys Gly Glu Ala Cys Lys Gln Glu Ile
    50                  55                  60
Gln Gln Leu Asn Arg Gln Ala Gln Ile Thr Val Leu Glu Leu Asp Met
65                  70                  75                  80
Asn Asn Tyr Asn Ser Val Leu Ser Phe Ala Lys Thr Leu Glu Glu Glu
                85                  90                  95
Val Pro Thr Val Asn Ile Leu Leu Leu Asn Ala Gly Ile Gly Leu Leu
            100                 105                 110
Lys Leu Glu Arg Ser Pro Ser Gly His Asp Cys Val Thr Gln Val Asn
        115                 120                 125
Tyr Leu Ser Asn Ala Leu Leu Ile Ala Ala Leu Leu Pro Tyr Leu Lys
    130                 135                 140
Ala Ser Ala Glu Thr Ser Gly Val Pro Ser Arg Ile Thr Trp Val Gly
145                 150                 155                 160
Ser Arg Met Tyr Phe Thr Thr Ser Leu Glu Glu Lys Ala Pro Ile Lys
                165                 170                 175
Thr Gly Glu Ser Val Leu Glu His Met Asp Ser Lys Glu Phe Phe Phe
            180                 185                 190
Pro Lys Glu Arg Tyr Asn Asp Thr Lys Leu Leu Cys Ala Met Phe Met
        195                 200                 205
Tyr Ser Leu Ala Gln Arg Leu Asp Lys Ser Lys Val Ile Leu Asn Met
    210                 215                 220
Val Cys Pro Gly Leu Ile Asn Thr Asn Met Thr Asn Val Leu Pro Phe
225                 230                 235                 240
His Met Arg Met Val Met Gly Val Met Lys Phe Phe Pro Ser Ala Pro
                245                 250                 255
Gly
```

<210> 38883
<211> 86
<212> PRT
<213> A.fumigatus

<400> 38883

```
Tyr Ser Tyr Arg Cys Val Pro Val Leu Ser Leu Ser Ser Gly Lys Phe
1               5                   10                  15
Ile Lys Thr Leu Asp Leu Ile Thr Asp Ala Ala Phe Glu Phe Asn Ser
            20                  25                  30
Leu Ile Ser Arg Thr Asp Ala Ala Phe Cys Val Val Leu Arg Gln Ser
        35                  40                  45
Asp Ile His Thr Val Thr Gln Asp Gly Met Thr Lys Gly Phe Glu Leu
    50                  55                  60
Pro Ile Gly Val Val Thr Arg Gly Thr Asp Leu Ala Thr Gly Ser Thr
65                  70                  75                  80
Phe Asp Pro Ile Leu Cys
                85
```

<210> 38884
<211> 207
<212> PRT
<213> A.fumigatus

<400> 38884

```
Ile Cys Gln Ser Ser Lys Thr Glu Gln Gly Arg Ser Gly Arg Asn Thr
1               5                   10                  15
```

```
Ile Ser Cys Leu Ser Tyr Arg Leu Arg Ile Gln Leu Thr Ser Gly Ser
            20                  25                  30
Ser Gln Arg Cys Met Asn Cys Val Gln Ser His Thr Asp Ala Glu Pro
        35                  40                  45
Val Leu Glu Glu Pro Lys Leu Leu Thr Glu Ser Glu Leu Ser Thr Ala
    50                  55                  60
Pro Asp Thr Tyr Thr Ala Val Ser His Ala Asp Pro Ser Ser Lys Cys
65                  70                  75                  80
Phe Thr Asn Ala Tyr Ile Leu Val Leu Thr Gln Phe Gln Gly Gln Ile
                85                  90                  95
Asp Ser Leu Ser Leu Ile Ala Ser Thr Gln Arg Leu Thr Val Lys Ala
            100                 105                 110
Ala Pro Thr Ala Gln His Ile Asp Ser Ser Gly Ala His Asp Met Asp
        115                 120                 125
Arg Val Ser Leu Ile Glu Asp His Asn Gly Lys Ala Asn Ser Val Arg
    130                 135                 140
Gly Gly Gln Pro Phe Thr Ala Phe Asn Ser Lys Gly Val Val His Arg
145                 150                 155                 160
Arg Ser Gly Ser Pro Pro Gly Thr Ala Arg Ser Val His Gly Gly Trp
                165                 170                 175
Ala Thr Trp Gly Val Asp Phe Asn Tyr Thr Val Thr Lys Pro Ile Lys
            180                 185                 190
Lys Gly Arg Ser Ser Lys Phe Ala Lys Val Pro Val Ser Pro Leu
        195                 200                 205

<210> 38885
<211> 66
<212> PRT
<213> A.fumigatus

<400> 38885
Ala Val Ile Ile Pro Gln Leu His Phe Leu Asp Val Ser Ser Leu Glu
1               5                   10                  15
Leu Leu Ala Ser Val Ser Thr Ile Val Glu Thr Leu Thr Leu Cys Asp
            20                  25                  30
Ser His Pro Arg Val Ser Ser Leu Asn Pro Ser Gln Asp Lys Met Pro
        35                  40                  45
Pro Ser Phe Arg Ser Ala Tyr Ala Gly Gly Tyr Ser Asp Glu Ile Lys
    50                  55                  60
Lys Arg
65

<210> 38886
<211> 255
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (24)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38886
Thr Cys Arg Ser Pro Lys Cys Leu Arg Arg Leu Arg Arg Gln Leu Lys
1               5                   10                  15
Ala Asn Met Arg Ser His Leu Xaa Asn Thr His Gly Ile Ser Ser His
```

```
            20                  25                  30
Pro Leu Glu Leu Ser Met Lys Ala Val Ser Ser Ala Phe His Lys Ala
        35                  40                  45
Glu Thr Pro Thr Tyr Leu Ser Pro Glu Val Leu Ser Gln Ile Thr Ala
    50                  55                  60
Thr Val Ile Gln Gln Leu Lys Ala Thr Gly Leu Asp Asn Phe Gln Ala
65                  70                  75                  80
Gln His Ala Pro Gln Ser Pro Gln Pro Ser Pro Gln Pro Pro Ser Gly
                85                  90                  95
Pro Thr Pro Ser Gln Trp Val Pro Pro Pro Pro Ser Ser Ala Pro Gln
            100                 105                 110
Tyr Ser Tyr Asn Glu Tyr Glu Ser Pro Pro Pro Val Pro Pro Lys Pro
        115                 120                 125
Ser Ser Pro Gln Pro Val Ala Val Ser Asp Thr Pro Asp Tyr Gln Gln
    130                 135                 140
Tyr Ser Gln Thr Ser Pro Tyr Pro Ser Ser Val Glu Pro Ser Ala Arg
145                 150                 155                 160
Pro Ser Pro Val Pro Pro Val Glu Arg Arg Gly Ser Pro Tyr Ser Gln
                165                 170                 175
Ala Ser Asp Gln Gly Gln Lys Met Glu Ala Arg Pro Lys Pro Pro Ser
            180                 185                 190
Arg Glu Thr Thr Val Thr Glu Met Thr Thr Leu Glu Lys Ile Trp Gly
        195                 200                 205
Lys Leu Phe Glu Glu Gly Arg Pro Thr Lys Arg Leu Gly Gln Leu Leu
    210                 215                 220
Arg Gly Ile Ala Val His Leu Val Ser Met Asp Val Asp Asp Trp Arg
225                 230                 235                 240
Ile Phe Ala Ser Asp Ser Val Gln Asp Arg Gly Leu Pro Ser Arg
                245                 250                 255
```

<210> 38887
<211> 241
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (101)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38887

```
Ala Gly Gly Arg Thr His Gly Val Gly Arg Gly Arg Thr Ala Arg Val
1               5                   10                  15
Arg Cys Glu Ile Pro Ala Pro Thr Ala Ser Met Leu Leu Thr Thr Pro
            20                  25                  30
Asp Ser Trp Gln Arg Ala Ile Tyr Thr Val Asn Pro Ser Lys Ala Thr
        35                  40                  45
Val Ala Asp Thr Lys Lys Leu Thr Thr Pro Leu Asn Lys Gly His Glu
    50                  55                  60
Ser Met Ala Tyr Leu Thr Tyr Leu Ile Asp His Tyr Asp Ser Leu Pro
65                  70                  75                  80
Ser Thr Ile Ala Phe Phe His Ser His Arg Ala Gly Phe Phe Met Ala
                85                  90                  95
Trp His Val Asp Xaa Pro Leu His Asp Asn Val Ala Ala Met Arg Ala
            100                 105                 110
Leu Gln Leu Asp Phe Val Gln Arg Asn Gly Tyr Val Asn Leu Arg Cys
```

```
        115                 120                 125
Asn Trp Asn Pro Gly Cys Arg Ala Ala Asp Arg Leu Asn Arg His Val
    130                 135                 140
Thr Glu Gln Val Trp Ala Glu Ile Phe Asp Gly Thr Ser Thr Pro Pro
145                 150                 155                 160
Leu Asn Ala Thr Thr Ser Pro Ala Arg Ala Ala Val Pro Gln Gln Lys
                165                 170                 175
Phe Leu Ala Lys Pro Lys Glu Ile Gly Ala Ala Cys Cys Ala Gln Phe
            180                 185                 190
Ala Val Ser Arg Glu Gln Val Leu Gln Arg Pro Arg Glu Asp Tyr Ile
        195                 200                 205
Arg Phe Arg Gln Trp Val Ile Asp Thr Asp Lys Asp Asp Ala Ser Ser
    210                 215                 220
Gly Arg Val Met Glu Phe Leu Trp His Val Ile Phe Gly Gln Glu Ala
225                 230                 235                 240
Val
```

<210> 38888
<211> 63
<212> PRT
<213> A.fumigatus

<400> 38888

```
Val Ala Pro Leu Ile Leu His Ser Phe Glu Val Asn Lys Pro His Ile
1               5                   10                  15
Gln Gln Cys Leu Ser Thr Arg Trp Leu Val Gly Arg Gln Gly Ser Lys
            20                  25                  30
Ser Met Arg Asp Ala Thr Ala Thr Ile Ser Phe Leu Cys Leu Asp Ser
        35                  40                  45
Gln Asn Asn Lys Glu Glu Glu Ser Gly Leu Lys Val His Thr Cys
    50                  55                  60
```

<210> 38889
<211> 151
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (148)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38889

```
Arg Cys Thr Trp Lys Ile Ser Ala Thr Ser Thr Val Gln Ala His Ile
1               5                   10                  15
Trp Ser Thr Gly Pro Asn Arg Asp Ile Ser Arg Arg Leu Ser Pro Pro
            20                  25                  30
Ser Leu Met Asp Lys Gln Ala Thr Lys Ser Ser Ser Trp Leu Ser Trp
        35                  40                  45
Arg Lys Asn Thr Arg Ser Gly Ser Arg Lys Asn Cys Gln Ser Thr Leu
    50                  55                  60
Arg Asn Pro Arg Thr Asn Ser Val Tyr Val Thr Asn Asn Pro Arg Gln
65                  70                  75                  80
Leu Ala Ala Arg Asn Leu His Arg Gln Pro Leu Gln Ser Asn Arg Arg
                85                  90                  95
```

```
Arg His Gln Glu Ala His His Pro Ala Glu Gln Arg Pro Arg Val His
            100                 105                 110
Gly Leu Pro His Leu Pro Asp Arg Pro Leu Arg Leu Pro Pro Leu His
        115                 120                 125
His Arg Leu Leu Pro Phe Pro Pro Arg Gly Leu Leu His Gly Leu Ala
    130                 135                 140
Arg Arg Arg Xaa Ala Pro Arg
145                 150
```

<210> 38890
<211> 241
<212> PRT
<213> A.fumigatus

<400> 38890

```
Ala Ser Ser Leu Arg Tyr Leu Ser Gln Gly Tyr Lys Ala Val Arg Asp
1               5                   10                  15
Ala Val Leu Phe Ala Ile Glu Val Ser Asp Ser Met Leu Thr Pro Arg
            20                  25                  30
Pro Ser Ser Asp Pro Lys Lys Arg Val Glu Glu Ser Pro Thr Thr Ala
        35                  40                  45
Ala Leu Lys Cys Ala Tyr Tyr Leu Met Gln Gln Arg Ile Ile Ser Asn
    50                  55                  60
Pro Arg Asp Met Ile Gly Val Leu Leu Tyr Gly Thr Gln Ala Ser Arg
65                  70                  75                  80
Phe Tyr Asp Glu Asp Glu Asn Ser Arg Gly Asp Leu Ser Tyr Pro His
                85                  90                  95
Cys Tyr Leu Phe Thr Asp Leu Asp Val Pro Ser Ala Arg Glu Val Lys
            100                 105                 110
Glu Leu Arg Ala Leu Ala Glu Asp Glu Gly Lys Ala Arg Asp Val Leu
        115                 120                 125
Val Pro Ser Lys Glu Arg Val Ser Met Ala Asn Val Leu Phe Cys Ala
    130                 135                 140
Asn Gln Ile Phe Thr Ser Lys Ala Pro Asn Phe Leu Ser Arg Arg Leu
145                 150                 155                 160
Phe Ile Val Thr Asp Asn Asp Asn Pro His Gly Asp Ser Arg Ser Gln
                165                 170                 175
Arg Ser Ala Ala Thr Val Arg Ala Lys Asp Leu Tyr Asp Leu Gly Val
            180                 185                 190
Thr Ile Glu Leu Phe Pro Ile Ser Gln Pro Glu His Glu Phe Asp Ser
        195                 200                 205
Ser Lys Phe Tyr Asp Val Arg Pro Ala Thr Val Asp Cys Gln Trp Arg
    210                 215                 220
Gln Leu Arg Gly Ser His Arg Ile Gly Tyr His Leu Gln Asn Leu Thr
225                 230                 235                 240
Asn
```

<210> 38891
<211> 337
<212> PRT
<213> A.fumigatus

<400> 38891

```
Asp Ile Ile Tyr Lys Thr Ser Pro Thr Asp Ala Glu Ala Pro Val Tyr
1               5                   10                  15
```

```
Leu Lys Asp Asp Ser Lys Val Ser Thr Ala Ser Gly Asp Gly Ile Ser
            20                  25                  30
Leu Leu Asn Gly Leu Leu Ser Ser Ile Asn Ser Arg Ser Val Pro Arg
        35                  40                  45
Arg Ala His Phe Leu Asn Met Pro Leu Glu Leu Gly Pro Asn Phe Lys
    50                  55                  60
Ile Ser Val Thr Gly Tyr Leu Leu Phe Lys Arg Gln Ala Pro Ala Arg
65                  70                  75                  80
Ser Cys Tyr Val Trp Leu Gly Gly Glu Lys Pro Gln Ile Val Lys Gly
                85                  90                  95
Val Thr Thr Gln Ile Ala Asp Asp Thr Ala Arg Thr Val Glu Lys Ser
            100                 105                 110
Glu Ile Arg Lys Ala Tyr Lys Phe Gly Asn Asp Gln Val Ser Phe Thr
        115                 120                 125
Pro Glu Glu Gln Lys Ala Leu Arg His Phe Gly Asp Pro Val Ile Arg
    130                 135                 140
Ile Ile Gly Phe Lys Pro Leu Ser Ala Leu Pro Phe Trp Ala Asn Val
145                 150                 155                 160
Lys His Pro Phe Phe Ile Tyr Pro Ser Glu Glu Asp Tyr Val Gly Ser
                165                 170                 175
Thr Arg Val Phe Ser Ala Leu His Gln Lys Leu Leu Lys Asp His Lys
            180                 185                 190
Met Ala Leu Val Trp Phe Ile Pro Arg Lys Asn Ala Ala Pro Val Leu
        195                 200                 205
Gly Ala Met Ile Ala Gly Glu Glu Lys Val Asp Glu Asn Gly Val Gln
    210                 215                 220
Lys Phe Pro Pro Gly Met Trp Ile Ile Thr Leu Pro Tyr Ala Asp Asp
225                 230                 235                 240
Val Arg Gln Asn Pro Glu Thr Thr Leu Asn Val Ala Pro Glu Pro Leu
                245                 250                 255
Ile Asp Gln Met Arg Thr Ile Val Gln Gln Leu Gln Leu Pro Lys Ala
            260                 265                 270
Ser Tyr Glu Pro Gln Lys Tyr Pro Asn Pro Cys Lys Leu Gly Lys Phe
        275                 280                 285
Asn Leu Leu Thr Ser Asn Ala Asp Leu Leu Pro Ala Ala Leu Gln Trp
    290                 295                 300
His Tyr Arg Ile Leu Gln Ala Leu Ala Leu Asp Glu Asp Leu Pro Glu
305                 310                 315                 320
Lys Pro Glu Asp Lys Thr Ile Pro Lys Tyr Arg Gln Ile Asp Lys Val
                325                 330                 335
Gly
```

<210> 38892
<211> 139
<212> PRT
<213> A.fumigatus

```
<400> 38892
Gly Arg Lys Leu Cys Phe Gln Val Ser Leu Val Ser Ala His Ala Ser
1               5                   10                  15
Val Asn Leu Leu Asn Asn Gly Thr Ser Ser Arg Tyr Thr Thr Lys Ala
            20                  25                  30
Phe Gly Pro Val Met Ala Lys Ala Ala Thr Leu Thr Ile Val Glu Ala
        35                  40                  45
Glu Asn Ile Val Pro Val Gly Ser Ile Asp Pro Asn Asp Val Asp Leu
```

```
    50                  55                  60
Pro Gly Ile Phe Val Asp Arg Val Val Pro Ala Thr Ala Glu Lys His
65                  70                  75                  80
Ile Glu Ile Arg Lys Leu Arg Thr Pro Glu Asn Glu Asp Val Thr Lys
                85                  90                  95
Thr Leu Ser Asp Pro Ala Met Ala Gln Arg Asn Arg Ile Ala Arg Arg
            100                 105                 110
Ala Ala Lys Glu Leu Lys Gln Gly Tyr Tyr Val Asn Leu Gly Val Gly
        115                 120                 125
Glu Tyr Ala Ser Leu Leu Lys Leu Leu Lys Arg
    130                 135
```

<210> 38893
<211> 148
<212> PRT
<213> A.fumigatus

<400> 38893

```
Leu Ala Cys Arg Asp Ile Ile Asn Ala Gly Lys Glu Thr Val Thr Leu
1               5                   10                  15
Met Pro Gly Ala Ala Thr Phe Asp Ser Thr Glu Ser Phe Gly Met Ile
            20                  25                  30
Arg Gly Gly His Val Asp Val Ser Ile Leu Gly Val Ser Glu Ala Asp
        35                  40                  45
Tyr Ala Cys Glu Arg Ile Glu Tyr Arg Val Asn Asp Lys Gln Ala Val
    50                  55                  60
Gln Val Ser Ala Lys Gly Asp Leu Ala Asn Tyr Met Ile Pro Gly Lys
65                  70                  75                  80
Val Phe Lys Gly Met Gly Gly Ala Met Asp Leu Ile Ser Asn Pro Asp
                85                  90                  95
Gln Thr Lys Ile Val Val Ala Thr Ser His Thr Ala Lys Asp Gly Ser
            100                 105                 110
Pro Lys Val Val Ala Glu Cys Ser Leu Pro Leu Thr Gly Ala Asn Cys
        115                 120                 125
Val Ser Thr Ile Ile Thr Glu Leu Val Ser Leu Leu Thr Arg Val Gln
    130                 135                 140
Pro Gln Thr Leu
145
```

<210> 38894
<211> 145
<212> PRT
<213> A.fumigatus

<400> 38894

```
Ser His Gly Pro Ala Phe Leu Ser Trp Val Ala Tyr Phe Ser Ser Cys
1               5                   10                  15
Cys Gln Gly Met Ala Thr Leu Arg Gly Ser Ala Ile Val Ser Pro Met
            20                  25                  30
Trp Arg Thr His Thr Val Thr Arg Pro Arg Leu His Leu Gly Thr Cys
        35                  40                  45
Tyr Lys Ala Cys Ala Arg Pro Gly Leu Leu Thr Thr Thr Ile Arg Tyr
    50                  55                  60
Val Arg Tyr Ser Thr Ala Thr Pro Pro Gln Gln Thr Leu Ala Pro Lys
65                  70                  75                  80
Ile Glu Arg Gly Val Ser Lys Leu Phe Arg Asp Ala Asp Glu Ala Val
```

```
                85                  90                  95
Ser Asp Leu Lys Ser Gly Ser Thr Ile Leu Ser Ser Gly Phe Gly Leu
            100                 105                 110
Cys Gly Val Ala Gly Lys Phe Leu Pro Asn Lys Lys Gly Ser Thr Asp
        115                 120                 125
Lys Leu Thr Leu Leu Arg Tyr Thr Ser Ile Ser Asp Gln Ser Gln Arg
    130                 135                 140
Ser
145
```

<210> 38895
<211> 75
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (11)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38895

```
Ile Ala Leu Thr Val Leu Ile Leu Leu Tyr Xaa Ala Asp Thr Leu Leu
1               5                   10                  15
Gln Ala Gly Glu Ile Pro Val Arg Leu Asp Glu Ser Gly Lys Val Leu
            20                  25                  30
Glu Arg Gly Thr Pro Arg Glu Thr Arg Ile Phe Asn Gly Lys Thr Tyr
        35                  40                  45
Leu Met Glu Thr Ala Leu Thr Gly Asp Val Ala Ile Leu Arg Ala Trp
    50                  55                  60
Lys Ala Asp Glu Ala Gly Asn Cys Val Phe Arg
65                  70                  75
```

<210> 38896
<211> 75
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (39)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38896

```
Ser Ser Ser Ser Ala Asp Thr Arg Ser Gly Ile Pro Thr Leu Ala Pro
1               5                   10                  15
Ser Phe Leu Pro Glu Gly Thr Lys Val Trp Val Gln Ser Glu Asn Gly
            20                  25                  30
Ile Leu Gly Met Val Gly Xaa Pro Ala Asn Leu Ala Lys Gln His Gln
        35                  40                  45
Leu Thr Asp Ile Thr Arg Asp Arg Ile Pro Leu Arg Thr Lys Leu Thr
    50                  55                  60
Arg Lys Phe Tyr Pro Leu Asn Leu Val Tyr Ala
65                  70                  75
```

<210> 38897
<211> 77

<212> PRT
<213> A.fumigatus

<400> 38897
His Tyr Ser Asp Thr Leu Leu Ser Ala Ile Asn Arg Arg Gly Val Glu
1 5 10 15
Asn Leu His Ser Leu Thr Ala Val Ser Asn Asn Ala Gly Ala Pro Gly
20 25 30
Arg Gly Gly Leu Ser Thr Leu Thr Gln Ala Gly Gln Val Asp Arg Leu
35 40 45
Ile Leu Ser Tyr Leu Gly Asn Asn Lys Ala Leu Glu Lys Lys Tyr Leu
50 55 60
Thr Gly Lys Ile Val Ile Glu Leu Cys Pro Gln Gly Thr
65 70 75

<210> 38898
<211> 76
<212> PRT
<213> A.fumigatus

<400> 38898
Ser Arg Leu Pro Cys Arg Asp His Ile Gln Lys Gly Thr Ala Gln Phe
1 5 10 15
Leu Arg Ile Asp Val Val Tyr Pro Met Gln Ser Thr Ser Leu Cys Gln
20 25 30
Val Ser Leu Glu Asp Gly Asn Gly Ala Asn Leu Arg Phe Pro Leu Lys
35 40 45
Ile Pro Lys Asp Gly Trp Ile Glu Val Leu Tyr Met Met Ser Thr Arg
50 55 60
Asn Val Ile Tyr Met Thr Ala Ser Ile Asp Gln Val
65 70 75

<210> 38899
<211> 63
<212> PRT
<213> A.fumigatus

<400> 38899
Cys Leu Gly Arg Ile Met Met Leu Met His Ser Gly Tyr Phe Pro Gly
1 5 10 15
Glu Val Thr Val Gly Trp Thr Ala Ile Ala Ser Thr Glu Gln Asn Arg
20 25 30
Thr Glu Asn Asn Leu Ile Leu Lys Ser Asp Met Thr Asn Leu Arg Ser
35 40 45
Thr Ile Glu Tyr Asn Ala Gln Asn Asp Ala Leu Lys Pro Arg Asn
50 55 60

<210> 38900
<211> 212
<212> PRT
<213> A.fumigatus

<400> 38900
Gly Thr Ser Ser Leu Leu Ser Ser Pro Trp Pro Pro Pro Gln Pro Trp
1 5 10 15
Leu Arg Ile Pro Ala His Arg Leu Gln Pro Leu Ser Ala Ala Ser His

```
            20                  25                  30
Met Ala Thr Thr Gly Arg Thr Arg Thr Lys Ala Ile Asp Pro Val Lys
        35                  40                  45
Leu Thr Thr Tyr Arg His Cys Asp Gly Pro Ala Thr Gly Ala Ala Thr
    50                  55                  60
Ala Ala Thr Glu Leu Ser Leu Val Pro Ser Pro Thr Glu Ser Val Gly
65                  70                  75                  80
Cys Glu Pro His Gly Asp His Trp His Cys Asp Gly Pro Ala Ser Ala
                85                  90                  95
Thr Ala Val Pro Thr Ala Thr Ser Asp Asp His Asp His Asp His Asp
            100                 105                 110
His Asp His Asp Asp Asp His Asp Asp His Gly Thr Ala Thr Pro Thr
        115                 120                 125
Val Pro Ser Pro Thr Ala Ser Val Gly Cys Lys Pro His Asn Asp His
    130                 135                 140
Trp His Cys Asp Gly Pro Arg Glu Thr Gly Ser Pro Ser Ala Ser Val
145                 150                 155                 160
Asn Glu Ala Ser Ala Ser Thr Leu Val Ser Thr Thr Ser Ser Thr Thr
                165                 170                 175
Ala Ser Ala Thr Gly Ala Gln Gln Ser Gly Gly Ala Gly Ser Leu Gly
            180                 185                 190
Val Glu Leu Thr Gly Ala Val Gly Leu Ala Leu Ala Val Ala Ala Ala
        195                 200                 205
Ala Phe His Val
    210
```

<210> 38901
<211> 315
<212> PRT
<213> A.fumigatus

<400> 38901

```
Ala Arg Thr Lys Val Phe Thr Met Asp Ser Leu Asn Ser Ser Tyr Pro
1               5                   10                  15
Gln Ser Ala Met Ala Thr Tyr Ser Asp Leu Leu Asp Leu Ala Ala Gln
            20                  25                  30
Gln Gln Pro His Leu Ser Gly Leu Glu Arg Leu Trp Trp Ala His Tyr
        35                  40                  45
Ala Tyr Trp Asp Asn Asn Ile Val Ala Thr Gly Lys Trp His Lys Pro
    50                  55                  60
Asn Gly Pro Pro Ser Ser Ile Leu Ile Ala Thr Gly Ile Ile Thr Phe
65                  70                  75                  80
Leu Ala His Glu Ile Ile Tyr Phe Ser Arg Cys Leu Pro Trp Ile Ile
                85                  90                  95
Ala Asp Ser Leu Pro Ser Ile Phe Leu Lys Tyr Lys Ile Gln Asp Gln
            100                 105                 110
Lys Pro Pro Pro Ser Ala Ala Glu Gln Trp Ala Cys Thr Lys Tyr Ile
        115                 120                 125
Leu Leu Ile His Phe Val Val Glu Leu Pro Leu Ile Val Leu Phe His
    130                 135                 140
Pro Met Met Glu Leu Cys Gly Leu Ser Phe Thr Ile Pro Phe Pro Asp
145                 150                 155                 160
Leu Arg Thr Leu Thr Ala Gln Ile Ile Ile Phe Phe Leu Leu Glu Asp
                165                 170                 175
Thr Tyr His Tyr Trp Leu His Arg Ala Met His Trp Gly Pro Leu Tyr
            180                 185                 190
```

```
Arg Ser Ile His Arg Ile His His Gln Tyr Ala Ala Pro Phe Gly Leu
        195                 200                 205
Thr Ala Glu Tyr Ala Ser Pro Trp Glu Thr Leu Leu Leu Gly Leu Gly
    210                 215                 220
Thr Ile Gly Pro Pro Leu Leu Leu Ala Leu Met Asp Cys Asn Val His
225                 230                 235                 240
Leu Val Thr Val Leu Ala Trp Val Thr Leu Arg Gln Phe Gln Ala Ile
                245                 250                 255
Asp Ser His Ser Gly Tyr Asp Phe Pro Trp Ser Leu Arg Arg Ile Leu
            260                 265                 270
Pro Phe Trp Gly Gly Ala Asp Trp His Asp Asp His His Arg Tyr Phe
        275                 280                 285
Trp Gly Asn Tyr Ser Ser Ser Phe Arg His Trp Asp Gly Lys Cys Phe
    290                 295                 300
Leu Leu Ser Phe Gly Ile Ser Ala Asn Gly Val
305                 310                 315
```

<210> 38902
<211> 87
<212> PRT
<213> A.fumigatus

<400> 38902

```
Val His Leu Ile Leu Ile Leu Ser Gly Asn Asn Thr Phe Tyr Lys Pro
1               5                   10                  15
Glu Val Leu Pro Gln Ile Leu Thr Phe Ser Gln Gly Lys Gln Leu Leu
            20                  25                  30
Ile Lys Glu Leu Arg Ser Pro Arg Gly His Lys Ser Gln Pro Ser Asn
        35                  40                  45
Pro Pro Pro Gln Gln Pro Leu Ile Ser Phe Leu Pro Glu Glu Tyr Ser
    50                  55                  60
Leu Arg Phe Pro Phe His His Cys Ser Met Cys Tyr His Trp Asp Trp
65                  70                  75                  80
Ser Ser Ser Met Ile His Arg
                85
```

<210> 38903
<211> 80
<212> PRT
<213> A.fumigatus

<400> 38903

```
Thr Lys Leu Cys Leu Val Pro Pro Thr Tyr Leu Ser Thr Arg Phe Pro
1               5                   10                  15
His Ser Ala Phe Pro Pro Leu Gln Leu Phe Pro Pro Ser Ser Phe Ser
            20                  25                  30
Ser Ser Thr Pro Thr Ser His Asn Arg Leu Ile Tyr Asn Thr Glu Ser
        35                  40                  45
Tyr Gln Pro Thr Met Pro Gln Asn Gln Asp Tyr Thr Tyr Lys Ser Ser
    50                  55                  60
Gly Thr Asn Ser Gln Val Asn Pro Pro Cys Leu Ser Pro Phe Thr Ile
65                  70                  75                  80
```

<210> 38904
<211> 73
<212> PRT

<213> A.fumigatus

<400> 38904
Leu Arg Tyr Leu His Val Gly Ser Arg Ala Leu Pro Ile Pro Thr Lys
1 5 10 15
Leu Leu His Tyr Asn Lys Thr Ile Asp Thr His Asp Asp Asn Asn Thr
20 25 30
Phe Val Pro Ala Leu Lys Ile Lys Pro Ala Ala Ser Pro Ala Arg Arg
35 40 45
Val Ser Ser Pro Ser Leu Pro Asp Gln Gln Pro Tyr Pro Ser Thr Leu
50 55 60
Asp Pro Val Ser Gly Tyr Pro Glu Gly
65 70

<210> 38905
<211> 168
<212> PRT
<213> A.fumigatus

<400> 38905
Ser Val Val Gly Met Leu Asp Asn Asn Arg Cys Arg Ala Asn Ile Phe
1 5 10 15
Phe Val Ile Tyr Ala Ser Thr Gln Val Ala Glu Ile Val Ala Ser Pro
20 25 30
Leu Ser Ala Trp Leu Met Ser Arg Thr Pro Trp Leu Pro Tyr Phe Leu
35 40 45
Gly Val Leu Phe Met Leu Cys Gly Leu Cys Ala Ser Ile Thr Val Pro
50 55 60
Glu Thr Leu Pro Lys Ser Thr Lys Leu Ser Glu Pro Asp Thr Glu Asp
65 70 75 80
Asp Glu Ala Asp Asp Asp Ala Pro Arg Thr Val Arg Tyr Arg Leu Lys
85 90 95
Ala Val Leu His His Ala Arg His Gln Ile Met His His Ser Arg Phe
100 105 110
Ile Phe Ala Asp Arg Asn Ile Gly Cys Ile Ser Ile Ala Leu Leu Ala
115 120 125
Ala Asn Val Ala Ile Gln Ser Leu Val Ile Thr Leu Gln Tyr Val Ser
130 135 140
Lys Arg Phe Ser Trp Ser Met Ala Glu Val Gln Ser Tyr Ser Phe Thr
145 150 155 160
Leu His Tyr Leu Ser Phe Leu Thr
165

<210> 38906
<211> 270
<212> PRT
<213> A.fumigatus

<400> 38906
Cys Ser Ser Leu Thr Gln Gly Arg Ile Asp Thr Pro Gly Val Ile Gln
1 5 10 15
Arg Val Ser Thr Leu Phe Asn Gly His Pro Ala Leu Ile Gln Gly Phe
20 25 30
Asn Thr Phe Leu Pro Pro Gly Tyr Arg Ile Glu Cys Gly Thr Glu Asp
35 40 45
Asn Pro Asp Ala Ile Arg Val Thr Thr Pro Ser Gly Thr Asn Thr Leu

```
    50                  55                  60
Asn Met Pro Arg Pro Arg Pro Ser Met Asp Pro Ala Gly Asp Met Gly
65                  70                  75                  80
Pro Ala Gly Gly Met Gly Ser His Gly Arg Thr Asp Tyr Tyr Glu Gln
                85                  90                  95
Ala Arg Pro Gly Trp Gln Gln Gln Pro Gln Gly Gln Gln Gln Gln Gly
            100                 105                 110
Asn Leu Pro Ala Ser Tyr Ser Pro Gly Ser Arg Met Met Gly Pro Gly
        115                 120                 125
Met Phe Gly Gln Gly Ala Gln Gly Gln Pro Gln Asp His His Phe Asp
    130                 135                 140
Tyr Pro Thr Gln Gln Glu Gln Gln Ala Ala Ala Gly Ala Ala Ala Met
145                 150                 155                 160
Ala His Gln Gln Asp Gln Arg Gly Val Ser Gln Leu Gln Gly Ala Ala
                165                 170                 175
Ala Ala Ser Ala Ala Met Gly Arg Ala Gly Met Met Gln Val Ser Pro
            180                 185                 190
Ala Ser Ala Gln Ala Ser Gly Met Asn Gln Pro Met Asn Ser Leu Ala
        195                 200                 205
Gly Ile Gly Ser Gly Met Leu Gln Gly Ser Gln Ala Asp Leu Asn Lys
    210                 215                 220
Arg Gly Pro Val Glu Phe Asn His Ala Ile Ser Tyr Val Asn Lys Ile
225                 230                 235                 240
Lys Val Gly Cys Ser Phe Gln Val Ala Ser Asn Gly Asn Arg Asn Pro
                245                 250                 255
Thr Lys Ala Ile Ser Leu Ala Glu Ser Leu Arg Gln Cys Thr
            260                 265                 270
```

Sequence Listing

<210> 38907
<211> 336
<212> PRT
<213> A.fumigatus

<400> 38907

```
Leu Pro Leu Ala Leu Tyr Phe Cys Ile Val Ala Pro Ser Asn Phe Leu
1               5                   10                  15
Cys Thr Leu Tyr His Pro Ser Ser Arg Leu Ser Leu Cys Tyr Ile Phe
            20                  25                  30
His Ala Pro Glu Arg Asp Asn Ser Arg Asn Met Gln Arg Ala Lys Val
        35                  40                  45
His His Thr Lys Pro Ser Gln Ala Asp Val Pro Ala Val Ser Pro Thr
    50                  55                  60
Leu Ile Pro Ala Leu Pro Glu Pro Ile Gln Pro Thr Gln Thr Met Thr
65                  70                  75                  80
Pro Ser Gln Glu Glu Phe Ala Phe Phe Asp Arg Val Lys Lys Tyr Ile
                85                  90                  95
Gly Asn Lys Ser Met Phe Asn Glu Phe Leu Lys Leu Cys Asn Leu Tyr
            100                 105                 110
Ser Thr Asp Leu Ile Asp Arg Asn Val Leu Ile Lys Lys Ala Ala Gly
        115                 120                 125
Tyr Ile Gly Ser Asn Pro Glu Leu Met Ala Trp Phe Lys Arg Phe Met
    130                 135                 140
His Ile Asp Glu Pro Glu Asp Lys Val Ile Glu Thr Lys Pro Lys Gln
145                 150                 155                 160
Glu Ser Gly Val Val Asn Leu Ser His Cys Arg Ser Leu Gly Pro Ser
                165                 170                 175
```

```
Tyr Arg Leu Leu Pro Lys Arg Glu Arg Gln Lys Pro Cys Ser Gly Arg
            180                 185                 190
Asp Gln Leu Cys Tyr Ser Val Leu Asn Asp Glu Trp Ala Ser His Pro
        195                 200                 205
Thr Trp Glu Ser Glu Asp Ser Gly Phe Val Ala His Arg Lys Asn Gln
    210                 215                 220
Phe Glu Asp Ala Leu His Arg Ile Glu Glu Asp Arg His Asp Tyr Asp
225                 230                 235                 240
His His Ile Glu Ala Cys Thr Arg Thr Ile Gln Leu Ile Glu Pro Ile
                245                 250                 255
Val Gln Gln Phe Leu Val Met Ser Glu Ala Glu Arg Ala Ala Phe Lys
            260                 265                 270
Leu Pro Pro Gly Leu Gly Gly Gln Ser Glu Ala Ile Tyr Gln Arg Val
        275                 280                 285
Ile Lys Lys Val Tyr Asp Arg Gln Arg Gly Ala Arg Ile Ile Arg Glu
    290                 295                 300
Met Phe Glu Arg Pro Cys His Val Leu Pro Ile Val Leu Phe Arg Leu
305                 310                 315                 320
Lys Gln Lys Cys Glu Glu Trp Lys Ala Ser Gln Val Ser Tyr Val Gly
                325                 330                 335
```

<210> 38908
<211> 148
<212> PRT
<213> A.fumigatus

<400> 38908

```
Thr Phe Thr Ala Pro Gly Pro Tyr His Pro Ala Asn Gln Asn Pro Gly
1               5                   10                  15
His Ser Leu Pro Gly Leu Ala Glu Leu Ser Gln Gly His Gly Gly Pro
            20                  25                  30
His Gln Pro Ala Tyr Gly Gln His Pro Gly Ala Pro Ser His Ala Thr
        35                  40                  45
Gly His Ser Leu Pro Gly Ile Gly Gln Thr Met Gln His Pro Ser Pro
    50                  55                  60
Gln Ser Leu Asn Arg Glu Arg Glu Arg Asp Ser Arg Glu Arg Glu Leu
65                  70                  75                  80
Ile Glu Arg Gln Arg Gln Gln Glu Glu Met Val His Arg Glu Arg Glu
                85                  90                  95
Gln Arg Glu Arg Glu Arg Glu Gln Leu Glu Arg Gln Gln Leu Glu Arg
            100                 105                 110
Gln Arg Glu Gln Gln His His Pro Val Gln Ser His Thr Gly Ser Ile
        115                 120                 125
Pro Leu His Gln Pro Val Ala Ser Lys Val Pro Asn Ser Ile His Gly
    130                 135                 140
Pro Asn Gly Leu
145
```

<210> 38909
<211> 62
<212> PRT
<213> A.fumigatus

<400> 38909

```
Trp Ala Leu Ala Cys Ser Asp Lys Ala His Lys Val Asn Leu Lys Ile
1               5                   10                  15
```

```
Ile Thr Leu Thr Thr Gln Pro Asn Lys Ser Ser Lys Leu Gln Arg Val
            20                  25                  30
Pro Gln Gln Trp Leu Thr Ser Lys Thr Asn Val Val Ser His Asn Phe
        35                  40                  45
Arg Ala Pro Gln Pro Arg Pro Leu Arg Trp Ala Glu Leu Glu
    50                  55                  60
```

<210> 38910
<211> 200
<212> PRT
<213> A.fumigatus

<400> 38910

```
Thr Arg Ser Arg Leu Val Val Pro Phe Lys Trp Arg Gln Met Ala Thr
1               5                   10                  15
Glu Ile Pro Leu Lys Gln Ser Leu Trp Gln Asn Arg Phe Ala Ser Ala
            20                  25                  30
Pro Glu Ile Tyr Lys Gln Phe Leu Glu Ile Leu Gln Thr Tyr Gln Arg
        35                  40                  45
Glu Ser Lys Pro Ile Gln Asp Val Tyr Ala Gln Val Thr Gln Leu Phe
    50                  55                  60
Asn Thr Ala Pro Asp Leu Leu Glu Asp Phe Lys Gln Phe Leu Pro Glu
65                  70                  75                  80
Ser Ala Ala His Ala Lys Gln Gln Ala Ala Ala Arg Gln Ala Glu Glu
                85                  90                  95
Ser Ile Pro Ile Ser Asn Val Arg Gly Glu Pro Gly Tyr Pro Ser Ala
            100                 105                 110
Gly Gly Leu Pro Ser Gln Thr Pro Asn Arg Asp Met Lys Met Pro Pro
        115                 120                 125
Leu Gly Gln Phe Asn Val Lys Asp Ser Ala Lys Asp Gly Lys Lys Arg
    130                 135                 140
Arg Gly Gly Pro Gly Ala Pro Ser Thr Met Thr Ser Ser Ile Ser Gly
145                 150                 155                 160
Pro Ser Ala Gly Ala Glu Ala Ala Arg Val Ala Asp Ala Gln Ala Gly
                165                 170                 175
Arg Pro Ser Ala Leu Gln Thr Ser Asn Ala Asn Lys Val Ser Glu Asn
            180                 185                 190
Leu Val Pro Arg His Ser His Ala
        195                 200
```

<210> 38911
<211> 113
<212> PRT
<213> A.fumigatus

<400> 38911

```
Asn Val Arg Glu Thr Met Pro Arg Pro Ser Asp Cys Ala Leu Pro Leu
1               5                   10                  15
Glu Ala Glu Met Arg Arg Val Glu Ser Gln Ser Gly Lys Leu Cys Arg
            20                  25                  30
Ile Thr Tyr Val Glu Lys Ser Pro Thr Asn Ile Leu Ala Gln Arg Glu
        35                  40                  45
Trp Asp Lys Val Trp Arg Glu Gln Thr Gln Lys Ala Tyr Trp Arg Ser
    50                  55                  60
Leu Asp His Gln Ala Ile Ala Ser Lys Ala Thr Asp Lys Lys Leu Phe
65                  70                  75                  80
```

```
Val Ala Lys His Ile Gln Asn Glu Ile Gln Ser Lys Phe Glu Asp Ala
                85                  90                  95
Thr Gly Leu Arg Leu His His Arg Arg Arg Arg Thr Arg Ala Arg Ile
            100                 105                 110
His
```

<210> 38912
<211> 122
<212> PRT
<213> A.fumigatus

<400> 38912

```
Val Cys Ile Asp Glu Cys Val Phe Ser Lys Met Leu Cys Arg Ser Phe
1               5                  10                  15
Asn Phe Ser Gln Leu Ala Ile Pro Phe Val Ser Val Leu Ile Ser Phe
            20                  25                  30
Leu Ala Tyr Thr Ser Gln Leu Phe Phe Tyr Tyr Phe Glu Glu Ala Pro
        35                  40                  45
Leu Arg Ser Glu Glu Phe Trp Arg Leu Asn Ile Phe Ala Val Cys Ile
    50                  55                  60
Trp Val Cys Tyr Tyr Arg Ala Cys Thr Val Asp Pro Gly Arg Ile Pro
65                  70                  75                  80
Lys Asp Trp Thr Pro Pro Asn Leu Lys Gln Leu Glu Lys Asp Cys Ala
                85                  90                  95
Gly Gly Arg Gln Arg Trp Cys Arg Arg Cys Glu Ala Phe Lys Pro Pro
            100                 105                 110
Arg Ala His His Cys Lys Thr Cys Gln Arg
        115                 120
```

<210> 38913
<211> 101
<212> PRT
<213> A.fumigatus

<400> 38913

```
Ile Phe Ser Tyr Phe Val Ser Asp Thr Ala Gln Asn Ala Lys Glu Lys
1               5                  10                  15
Gly Tyr Leu Ser Ile Ala Tyr Ala Val His His Thr Leu Phe Leu Val
            20                  25                  30
Ser Ile Ile Ala Ala Leu Lys Val Phe Pro Thr His Arg Arg Cys Met
        35                  40                  45
Pro Phe Cys Ile Ala Ser Arg Ile Val Arg Leu Ile Tyr Thr Tyr Pro
    50                  55                  60
Asn Pro Ala Ala Ser Ile Gly Asn Ala Tyr Ala Ala Lys Ser Lys Gln
65                  70                  75                  80
Ala Cys Thr Leu Ser Asn Glu Asp Ser Ser Ile Ile Ser Gly Arg Arg
                85                  90                  95
Arg Ile Ala Ser Trp
            100
```

<210> 38914
<211> 87
<212> PRT
<213> A.fumigatus

<400> 38914
Ser Asn Trp Lys Arg Ile Ala Leu Gly Val Gly Ser Ala Gly Val Asp
1 5 10 15
Asp Ala Arg Arg Ser Ser His Arg Glu Arg Thr Ile Ala Arg Pro Val
20 25 30
Arg Gly Glu Ile Leu Trp Leu Glu Ser Gly Ser Arg Leu Thr Ile Cys
35 40 45
Arg Cys Ile Pro Lys Met Asp His His Cys Pro Trp Thr Ser Asn Cys
50 55 60
Val Ser His Phe Thr Tyr Pro His Phe Met Arg Phe Leu Phe Val Cys
65 70 75 80
Cys Ser Arg His Gly Leu Ser
85

<210> 38915
<211> 71
<212> PRT
<213> A.fumigatus

<400> 38915
Ser Arg Val Leu Lys Glu Glu Leu Tyr Arg Ile Cys Thr Asn Cys Gln
1 5 10 15
Leu Val Asn Cys Thr Ile Tyr Cys Leu Val Ala Gly Asn Asp Pro Val
20 25 30
Pro Arg Ile Ser Pro Ala Ser Ser Phe Pro Val Cys Ala Leu Ser Ile
35 40 45
Leu Ala Phe Val Val Leu His Ser Leu Gly Tyr Val Leu His Asp Gly
50 55 60
Gly Trp Lys Ile Ile Arg Trp
65 70

<210> 38916
<211> 166
<212> PRT
<213> A.fumigatus

<400> 38916
Pro Tyr Ser Cys Asp Gln Cys Arg Arg Trp Lys Glu Lys Cys Glu Gly
1 5 10 15
Gly Ile Pro Cys Arg Lys Cys Ser His Leu Gly Arg Pro Cys Arg Val
20 25 30
Arg Gly Met Pro Val Ser Gln Asp Ile Gly Tyr Val Val Lys Val Thr
35 40 45
His Gln Tyr Phe Val Gln Ala Asp Ala Ala Ser Thr Arg Asp Ala Phe
50 55 60
Leu Glu Leu Gln Glu Arg Gly Met Tyr Met Glu Arg Ile Leu Lys His
65 70 75 80
Ala Phe Lys Gly Ile Ala Leu Asp Thr Lys Ser Leu Gly Gln Met Ala
85 90 95
Leu Ser Ile Glu Glu Thr Glu Lys Gly Pro Gln Thr Glu Thr Asp Glu
100 105 110
Ala Glu Leu Ala Val Glu Glu Glu Cys Thr Ile Asp Pro Val Glu Asp
115 120 125
Thr Val Thr Arg Glu Leu Phe Leu Phe His Ser Val His Gly Gly Ala
130 135 140
Asp Cys Arg Gln Thr Ser Pro Gly Asn Ser Pro Thr Gly Thr Phe Pro

145 150 155 160
Cys Ala Ser Ser Ala Arg
165

<210> 38917
<211> 221
<212> PRT
<213> A.fumigatus

<400> 38917
Leu Leu Gln Thr Pro Pro Asn Gln Ile Ser Asn Tyr Pro Arg Ala Lys
1 5 10 15
Gln Leu Arg Ser Ser Ser Arg Thr Leu Ala Ala Ala Ile Ser Cys Ile
20 25 30
Pro Pro Arg His Ile Ala Glu Phe Leu Val Asn Ile Phe Phe Lys His
35 40 45
Ala Val Thr His Tyr Phe Tyr Val Asp Arg Ser Trp Leu Arg Thr Arg
50 55 60
Leu Ala Ala Leu Tyr Thr Asn Pro Gly Ser Leu Thr Ser Lys Glu Ala
65 70 75 80
Pro Val Leu Gly Ile Ile Leu Thr Ile Phe Ala Ile Gly Thr Gln Tyr
85 90 95
Ala Tyr Leu Glu Ala Lys Pro Ala Pro Ala Ser Ser Gly Gln Thr Gln
100 105 110
Asp Phe Ser Glu Asp Glu Leu Gly Thr Met Phe Tyr Gln Glu Ala Ile
115 120 125
Arg Leu Leu Pro Glu Ile Ile Glu Leu Ser Ser Leu Glu Ser Val Gln
130 135 140
Ala Cys Leu Leu Leu Ala Ala Tyr Ala Leu Pro Ile Asp Ala Ala Gly
145 150 155 160
Leu Gly Tyr Val Tyr Ile Asn Leu Thr Ile Arg Leu Ala Met Gln Asn
165 170 175
Gly Met His Arg Arg Cys Val Gly Lys Thr Phe Ser Ala Ala Met Met
180 185 190
Glu Thr Arg Asn Arg Val Trp Trp Thr Ala Tyr Ala Met Glu Arg Tyr
195 200 205
Pro Phe Ser Phe Ala Phe Cys Ala Val Ser Leu Thr Lys
210 215 220

<210> 38918
<211> 310
<212> PRT
<213> A.fumigatus

<400> 38918
Gln Pro Arg Ser Leu Leu Arg Thr Thr Pro Lys Gln Asp Phe Pro Leu
1 5 10 15
Leu Leu Ser Arg Leu Ala Asp Arg Lys Thr Asp Leu Glu Lys Trp Trp
20 25 30
Ser Ser Leu Gln Leu Thr Ile Pro Lys Asn Asp Ala Gln Thr Pro Val
35 40 45
Asp Arg Ser Thr Ala His Ile Lys Leu Glu His Cys Leu Leu Arg Met
50 55 60
Phe Ile Gly Arg Pro Phe Leu Phe Ser Arg Gly Ser Pro Ser Asn Pro
65 70 75 80
Thr Ser Pro Ala Thr Pro Pro Ser Gly Thr Gly Gln Gln Leu Thr Pro

```
                85                  90                  95
Arg Gln Glu Leu Val Thr Cys Cys Ile Thr Ala Ala Ala Asp Ala Ile
            100                 105                 110
Ser Ile Cys Ser Thr Leu Arg Asp Ser Asp Ser Gly Pro Gly Leu Ala
        115                 120                 125
Arg Ala Ser Tyr Ile Glu Tyr Ser Ser Cys Arg Ala Ala Leu Leu Val
    130                 135                 140
Leu Ile Ala Tyr Ser Ile Gln Asp Arg Ser Asp His Phe Arg Lys Ala
145                 150                 155                 160
Leu Arg Val Gly Leu Asp Met Ile Arg Glu Met Ala Ala Thr Gly Glu
                165                 170                 175
Ser Ala Arg Ser Glu Val Glu Leu Ile Glu Val Leu Glu Arg Ala Leu
            180                 185                 190
Val Arg Leu Arg Ser Phe Asp Glu Val Gly Lys Val Ala Ser Asp Tyr
        195                 200                 205
Glu Glu Phe Lys Gln Trp Glu Ser Met Trp Lys Arg Gln Asn Asp Gly
    210                 215                 220
Asn Cys Asn Ser Phe Glu Thr Val Ala Gly Ser Ile His Glu Gln Gly
225                 230                 235                 240
Trp Pro Thr Gly Glu Met Asp Pro Ser Gly Met Ala Glu Ser Asn Glu
                245                 250                 255
Asn Leu Gly Ser Leu Arg Leu Phe Asp Gly Ala Ala Glu Trp Ala Leu
            260                 265                 270
Phe Gly Gly Gly Ser Ala Leu Pro Arg Glu Leu Gln His Pro Glu Thr
        275                 280                 285
Gln Met Leu Gly Asp Phe Leu Ala Leu His Asp Pro Arg Phe Asp Ala
    290                 295                 300
Asp Leu Ser Gln Ser Leu
305                 310

<210> 38919
<211> 72
<212> PRT
<213> A.fumigatus

<400> 38919
Asp Gly Arg Phe His Phe Arg Ser Pro Glu Pro Gly Met Ser Leu Pro
1               5                   10                  15
Glu Leu Thr Glu Leu Thr Asn Phe Ser Arg Pro Leu Gln Thr Lys Tyr
            20                  25                  30
Gln Thr Thr Pro Glu Gln Asn Ser Ser Asp Pro Ala Arg Glu Leu Ser
        35                  40                  45
Gln Gln Pro Ser Pro Ala Ser Pro Leu Ala Thr Ser Pro Ser Phe Ser
    50                  55                  60
Ser Thr Ser Ser Ser Asn Thr Pro
65                  70

<210> 38920
<211> 170
<212> PRT
<213> A.fumigatus

<400> 38920
Ser Gly Pro Cys Trp Leu Leu His Gln Ile Trp Ala Lys Trp Gly Ala
1               5                   10                  15
His Gln Val Arg Tyr Pro Val Gly Gly Phe Arg Thr Pro Tyr Ala Asp
```

```
            20                  25                  30
Asp Trp Ser Thr Gln Arg Ala Ser His Pro Val Gly Thr Thr Val Arg
        35                  40                  45
Val Thr Asp Leu Phe Lys Ser Ile Pro Val Arg Arg Gln Thr Val Leu
    50                  55                  60
Lys Ser Thr Ala Lys Thr Val Ala Lys Ile Lys Lys Ile Val Gln Ser
65                  70                  75                  80
Tyr Ala Ile Ala Arg Pro Thr Ile Arg Leu Ser Leu Lys Val Leu Lys
                85                  90                  95
Ala Ala Asn Glu Lys Ala Asn Trp Val Phe Ala Pro Gly Lys Asn Ala
            100                 105                 110
Ser Leu Thr Asp Ala Ala Leu Lys Val Ala Gly Thr Glu Val Ala Ser
        115                 120                 125
Ala Cys Val Thr Lys Pro Trp Pro Cys Ala Asn Glu Ser Gly Glu Glu
    130                 135                 140
Ser Arg Val Val Asn Gly Ser Ser Phe Gln Leu Met Ala Leu Leu Ala
145                 150                 155                 160
Asp Pro Gly Ser Gly Ile Tyr Ser Val His
                165                 170
```

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<210> 38921
<211> 199
<212> PRT
<213> A.fumigatus

<400> 38921

```
Lys Gly Ser Ile Arg Leu Glu Asp Asp Pro Arg Ile Pro Ser Ser Pro
1               5                   10                  15
Leu Arg Met Pro Ile Lys Ala Leu Pro Gln Thr Thr Val Arg Ala Ile
            20                  25                  30
Gly Ser Thr Ser Val Ile Ser Asp Pro Cys Ser Ile Val Lys Glu Leu
        35                  40                  45
Leu Asp Asn Ser Leu Asp Ala His Ala Thr Ala Ile Ser Val Glu Ile
    50                  55                  60
Ser Gln Asn Thr Val Asp Val Ile Gln Val Lys Asp Asn Gly His Gly
65                  70                  75                  80
Ile Pro Ala Glu Asp His Pro Phe Val Cys Arg Arg Ala Phe Thr Ser
                85                  90                  95
Lys Ile Ala Thr Val Glu Asp Leu Arg Lys Leu Gly Gly Lys Ser Leu
            100                 105                 110
Gly Phe Arg Gly Glu Ala Leu Ala Ser Ala Ala Glu Val Cys Gly Gly
        115                 120                 125
Val Thr Val Thr Thr Arg Val Glu Ala Asp Pro Val Gly Phe Cys Ile
    130                 135                 140
Lys Tyr Gly Arg Asn Gly Glu Leu Ile Arg Tyr Val Thr Arg Trp Glu
145                 150                 155                 160
Ala Ser Glu Leu Arg Met Leu Thr Ile Gly Val Leu Asn Val Pro Arg
                165                 170                 175
Thr Gln Ser Val Gln Arg Cys Glu Leu Arg Ile Ser Ser Arg Ala Tyr
            180                 185                 190
Gln Ser Ala Gly Lys Gln Tyr
        195
```

<210> 38922
<211> 248
<212> PRT

<213> A.fumigatus

<400> 38922
Trp Pro Tyr Ser Arg Ile Leu Asp Gln Val Phe Thr Leu Ser Ile Glu
1 5 10 15
Pro Arg Thr Trp Leu Met Ser Ala Asp Phe Ser Lys Val Asn Asn Ala
20 25 30
Gly Gln Phe Phe Ser Val Asp Gly Arg Pro Leu Ser Ala Ser Arg Gly
35 40 45
Ile Gly Gln Glu Ile Ser Lys Leu Tyr Lys Thr Tyr Leu Arg Ala Ala
50 55 60
Ala Ser Arg Ser Gly Gly Phe Pro Tyr Ile Ser Asp Ser Phe Leu Cys
65 70 75 80
Leu Gln Ile Arg Cys Pro Glu Ala Ser Tyr Asp Val Asn Val Glu Pro
85 90 95
Ala Lys Asp Asp Val Leu Phe Glu Asn Gln Gln Asp Leu Leu Ser Leu
100 105 110
Ala Glu Glu Leu Phe Lys Asp Val Tyr Gly Glu Thr Leu Asp Arg His
115 120 125
Glu Lys His Lys Ser Ser Ser Lys Gly Lys Glu Arg Met Val Asn Ser
130 135 140
Asp Ala Phe Glu Leu Leu Leu Ala Arg Lys Asp Ser Thr Glu Cys Ser
145 150 155 160
Ala Glu Thr Val Ser Glu Gly Asn Lys Pro Pro Ser Phe Val Thr Ala
165 170 175
Ser Ser Leu Phe His Met Arg Ser Ser Pro Lys His Gly Arg His Glu
180 185 190
Gln Arg Leu Phe Ser Asp Gly Ser Pro Gly Ala Ser Gly Tyr Thr Arg
195 200 205
Thr Arg Asp Leu Glu Gly Leu Asn Pro Trp Ser Val Thr Arg Leu Tyr
210 215 220
Ala Pro Ser Gly Ala Leu Ser His Lys Thr Pro Ala Arg Val Val Phe
225 230 235 240
Thr Ala Gly Ser Gly Ala Leu Arg
245

<210> 38923
<211> 72
<212> PRT
<213> A.fumigatus

<400> 38923
Glu Ala Thr Lys Ser Ser Ile Thr Ala Glu Val Glu Gly Val Val Asp
1 5 10 15
Arg Leu Arg Ser Ser Phe Ala Cys Leu Ser Ile Leu Gln Thr Ile Gly
20 25 30
Glu Leu Asp Met Ala Ala Ile Asp Leu Thr Thr Val Ser Leu Leu Gly
35 40 45
Arg Ala Gly Thr Glu Lys Lys Leu Arg His Asn Arg Thr Thr Ala Gly
50 55 60
Phe Ile Thr Arg Pro Val Leu Pro
65 70

<210> 38924
<211> 123
<212> PRT

<213> A.fumigatus

<400> 38924

```
Arg Thr Tyr Gly Arg Gly Arg Lys Asp His Gln Pro His Gly His Gly
1               5                  10                  15
Arg Gly Ser Pro Arg Arg Leu Arg Ser Met Val Pro Gly Leu Leu Arg
            20                  25                  30
Thr Ala Leu Ser Ser Ala Pro Glu Glu Arg Thr Ser Gln Ser Gly Arg
        35                  40                  45
Arg Pro Asp Pro Gln His Gln Ser Arg Asp Pro Gly Arg Leu Cys Ala
    50                  55                  60
Ala Ala Cys Val Gly Arg Ser Arg Ala Arg Arg Gly Leu Gln Gly Glu
65                  70                  75                  80
Ala Gln Gly Lys Arg Arg Arg Pro Pro His Pro Gly Arg Val Lys Arg
                85                  90                  95
Gly Arg Leu Ser Gly Arg Met Leu Pro Arg Ser Ile Val Ser Asn Pro
            100                 105                 110
Gly Val Gln Gly Tyr His Arg Arg Pro Gly Leu
        115                 120
```

<210> 38925
<211> 178
<212> PRT
<213> A.fumigatus

<400> 38925

```
Ser Arg Lys Ser Thr Leu Val Val Ile Ala Ala Phe Val Ser Ile Phe
1               5                  10                  15
Thr Gly Cys Gly Leu Asn Phe Ala Phe Gly Val Tyr Gln Glu Leu Tyr
            20                  25                  30
Glu Ser Met Ala Gln Leu Pro Arg Arg Thr Pro Phe Thr Gly Val Thr
        35                  40                  45
Pro Ala Gln Ile Asp Leu Ile Gly Thr Leu Ala Val Ser Met Met Ser
    50                  55                  60
Leu Gly Ala Pro Phe Ala Ser Gly Trp Cys Lys Ser Tyr Ser Pro Arg
65                  70                  75                  80
Arg Ile Thr Leu Ala Gly Thr Ile Ile Phe Ala Thr Ala Asn Val Leu
                85                  90                  95
Ala Ser Phe Ser Gln His Leu Trp Gln Val Val Leu Thr Gln Gly Val
            100                 105                 110
Leu Leu Gly Cys Gly Thr Cys Leu Thr Tyr Ile Thr Ala Val Thr Val
        115                 120                 125
Ala Pro Gly Trp Phe Thr Thr His Arg Gly Leu Ala Ile Gly Val Ile
    130                 135                 140
Ser Ser Gly Thr Gly Val Gly Gly Val Val Trp Ala Pro Ala Leu Arg
145                 150                 155                 160
Ala Leu Asn Ala Arg Ile Gly Phe Leu His Thr Val Arg Pro Thr Gly
                165                 170                 175
Gly Cys
```

<210> 38926
<211> 412
<212> PRT
<213> A.fumigatus

<400> 38926

```
Asp Leu His Glu Leu Glu Leu Ser Pro Leu His Phe Glu Ser Val Ser
1               5                  10                  15
Gln Gly Ser Thr Gly Arg Val Ile Asn Pro Ala Val Val Leu Leu Cys
            20                  25                  30
Arg Ser Phe Phe Ser Val Pro Ala Arg Pro Ser Ser Glu Thr Val Val
        35                  40                  45
Lys Ser Ile Ala Ala Ile Ser Asn Ser Pro Ile Val Cys Arg Met Asp
    50                  55                  60
Lys Gln Ala Lys Glu Asp Leu Ser Arg Ser Thr Thr Pro Ser Thr Ser
65                  70                  75                  80
Ala Val Ile Glu Asp Phe Val Ala Ser Tyr Glu Lys His Arg Asp Phe
                85                  90                  95
Tyr Cys His Thr Ala Ile Ala Val Arg Arg Leu Cys Glu Ala Ala Leu
            100                 105                 110
Glu Asp His His Ile Pro Cys Leu Val Ser His Arg Ala Lys Glu Ala
        115                 120                 125
Ala Ser Leu Arg Lys Lys Leu Tyr Ala Arg Gln Leu Leu Arg Gly His
    130                 135                 140
Ala Tyr Ala Ser Arg Glu Glu Ile Lys Asn Asp Ile Ser Asp Leu Ala
145                 150                 155                 160
Gly Val Arg Ile Ala Leu Tyr Tyr Pro Arg His Gly Glu Glu Val Lys
                165                 170                 175
Arg Ile Leu Asp Asp Glu Leu Thr Val Val Glu Glu Lys Thr Ile Asn
            180                 185                 190
Arg Met Gly Met Asp Glu Ala Leu His Gly Gly Tyr Asp Arg Trp Phe
        195                 200                 205
Pro Gly Tyr Cys Ala Gln His Tyr Arg Val His Leu Lys Ser Gly Pro
    210                 215                 220
Val Asn Gln Glu Gly Val Pro Thr His Asn Thr Lys Val Glu Ile Gln
225                 230                 235                 240
Val Val Ser Val Leu Arg His Val Trp Ala Glu Val Glu His Asp Val
                245                 250                 255
Val Tyr Lys Gly Lys Arg Arg Ala Ser Gly Asp Asp His Arg Ile Leu
            260                 265                 270
Asp Gly Leu Ser Gly Ala Val Phe Leu Gly Glu Cys Phe Leu Asp Gln
        275                 280                 285
Leu Tyr Gln Thr Gln Val Ser Arg Ala Thr Thr Asp Asp Arg Gly Phe
    290                 295                 300
Glu Asn Val Tyr Ala Leu Gly Ser Phe Leu Trp Asn Trp Thr Ala Ser
305                 310                 315                 320
Leu Gly His Cys Gln Val Glu Tyr Pro Val Glu Val Glu Phe Leu Lys
                325                 330                 335
Asp Leu Leu Gly Ile Leu Gly Leu Asn His Pro Arg Thr Leu Arg Asp
            340                 345                 350
Ile Leu Ser Gln Ile Asp Leu Ser Thr Arg Asp Glu Ser Glu Trp His
        355                 360                 365
Ala Phe Arg Ala Ala Phe His Pro Ala Arg Ser Ser Leu Thr Met Phe
    370                 375                 380
Leu Met His Arg Ile Leu Thr Thr Pro Ala Gly Ala Asn Arg Leu Ala
385                 390                 395                 400
Thr Thr Pro Ala Asp Asp Pro Gly Ile Asp Arg Ala
                405                 410
```

<210> 38927
<211> 118

<212> PRT
<213> A.fumigatus

<400> 38927
His Glu Leu Gly Leu Ile Ser Ser Ser Leu Ile Trp Leu Asp Arg Val
1 5 10 15
Tyr Pro Leu Ser Ser Gln Leu Phe Gly Ala Leu Phe Ala Ser Asp Ser
20 25 30
Trp Asp Arg Tyr Leu Pro Gly Ile Glu Trp Leu Asp Ser Gln Lys Ala
35 40 45
Gln Asp Tyr Trp Arg Gly Lys Ala Val Leu Thr Asp Glu Glu Arg Gln
50 55 60
Lys Ile Asn Val Val Phe Gln Cys Phe Thr Arg Asn Arg Ala Gln Pro
65 70 75 80
Ile Gln Leu Ala Phe Ala Leu Ala Arg Leu Gly Val Leu Arg Arg Tyr
85 90 95
Ala Ala Asp Trp Leu Ala Leu His Arg Val Ile Ser Pro Leu Leu Ile
100 105 110
Val Ile Gln Ala Arg Cys
115

<210> 38928
<211> 176
<212> PRT
<213> A.fumigatus

<400> 38928
Glu Ile His Pro Gly Gly Asn Ser Arg Leu Arg Glu His Leu His Arg
1 5 10 15
Leu Arg Pro Gln Leu Arg Val Arg Arg Val Ser Arg Ala Leu Arg Ile
20 25 30
His Gly Pro Ala Ala Pro Ala His Pro Ile His Arg Arg His Ala Arg
35 40 45
Pro Asp Arg Pro Asp Arg Asp Ala Gly Arg Leu His Asp Val Pro Arg
50 55 60
Ser Ala Leu Arg Val Gly Leu Val Gln Ile Leu Leu Pro Ala Pro Asp
65 70 75 80
His Pro Arg Arg Asp Asp His Leu Arg His Gly Gln Arg Pro Arg Leu
85 90 95
Val Gln Pro Ala Pro Leu Ala Gly Arg Ser His Pro Gly Arg Ala Pro
100 105 110
Arg Leu Arg His Leu Ser His Val His His Arg Arg His Arg Arg Pro
115 120 125
Gly Met Val His His Ala Pro Arg Pro Arg His Arg Gly His Leu Leu
130 135 140
Arg His Arg Arg Arg Arg Arg Arg Met Gly Pro Cys Ala Ala Arg Pro
145 150 155 160
Glu Arg Pro Asp Arg Val Ser Pro His Arg Pro Thr His Gly Arg Leu
165 170 175

<210> 38929
<211> 248
<212> PRT
<213> A.fumigatus

<400> 38929

```
Tyr Lys Met Ser Lys Thr Lys Ser Val Thr Lys Lys Gly Ala Asp Lys
1               5                  10                  15
Pro Val Asp Lys Ala Leu Ser Lys Val Lys Asp Ala Gly Val Thr Lys
            20                  25                  30
Ala Ser Gln Ser Pro Lys Ala Lys Ser Lys Gln Ile Ala Arg Glu Val
        35                  40                  45
Ala Ala Lys Glu Asn Ser Lys Arg Lys Lys Lys Glu Pro Thr Pro Ser
    50                  55                  60
Ser Ser Ser Glu Ser Asp Ser Asp Glu Glu Met Glu Ser Thr Thr Ser
65                  70                  75                  80
Ser Ser Glu Ser Glu Ser Glu Glu Glu Lys Pro Ala Lys Lys Glu Val
                85                  90                  95
Lys Lys Glu Ser Lys Lys Ala Glu Ser Ser Ser Glu Ser Glu Pro Glu
            100                 105                 110
Ser Asp Ser Asp Glu Glu Met Asp Asp Ala Ser Ser Ser Glu Ser Glu
        115                 120                 125
Ser Glu Ser Glu Ser Glu Asp Glu Lys Pro Val Lys Lys Asp Ile Lys
    130                 135                 140
Lys Glu Ser Lys Lys Ala Glu Ser Ser Asp Ser Glu Ser Glu Ser Asp
145                 150                 155                 160
Ser Glu Ser Glu Ser Glu Ser Glu Ser Glu Asp Glu Lys Ala Val Lys
                165                 170                 175
Lys Glu Val Lys Ala Lys Ala Asp Thr Ser Glu Ser Ser Glu Ser Glu
            180                 185                 190
Ser Asp Ser Asp Glu Glu Glu Glu Ala Pro Lys Lys Ala Ala Lys Lys
        195                 200                 205
Glu Ser Ser Asp Ser Glu Asp Ser Glu Ser Glu Ser Glu Ser Glu Ser
    210                 215                 220
Glu Ser Glu Ser Glu Ser Glu Asp Glu Ala Pro Ser Ser Pro Gly Ala
225                 230                 235                 240
Glu Arg Pro Leu Pro Cys Lys Arg
                245
```

<210> 38930
<211> 97
<212> PRT
<213> A.fumigatus

<400> 38930

```
Tyr Cys Tyr Thr Met Ala Pro Thr Thr Pro Ser Ser His Arg Pro Arg
1               5                  10                  15
Lys Arg Arg Lys Tyr Pro Thr Gly Ser Asn Asn Ser Leu Ile Leu Glu
            20                  25                  30
Ala Glu Gly Gly Lys Ser Ser Pro Ala Phe Pro Leu Val Ser Phe Leu
        35                  40                  45
Trp Ala Ala Arg Ala Gly Val Ser Gln Trp Leu Val Leu Pro Leu Ile
    50                  55                  60
Leu Met Val Val Gly Leu Phe Arg Trp Ala Val Ser Leu Trp Gly Tyr
65                  70                  75                  80
Ser Gly Leu Cys Ser Ala Trp Val Leu Gly Ile Cys Val Gln Thr Cys
                85                  90                  95
Ser
```

<210> 38931
<211> 67

<212> PRT
<213> A.fumigatus

<400> 38931
Arg Ile Asp Ala Gly Phe Gln Val Pro Pro Met His Gly Asp Phe Glu
1 5 10 15
Ala Gln Arg His Trp Met Glu Leu Thr Ile His Leu Pro Met Ser Lys
20 25 30
Trp Tyr Leu Tyr Asp Leu Gln Tyr Trp Gly Leu Asp Tyr Pro Pro Leu
35 40 45
Thr Ala Tyr His Ser Trp Leu Leu Gly Lys Met Tyr Val Ala Phe Trp
50 55 60
Asp Ile Leu
65

<210> 38932
<211> 470
<212> PRT
<213> A.fumigatus

<400> 38932
Gly Arg Arg Ser Leu Leu Thr Ile Ser Ser Gly Ser Val Leu Asp Pro
1 5 10 15
Ser Trp Phe Ala Leu Asp Asp Ser Arg Gly Phe Glu Asp Pro Lys Leu
20 25 30
Lys Val Phe Met Arg Gly Thr Val Ile Ala Ser Glu Tyr Leu Val Tyr
35 40 45
Ile Pro Ala Val Val Asn Phe Leu Arg Arg Tyr Thr Arg Met Gln Gly
50 55 60
Val Pro Ala Trp Ser Ala Ser Ile Ala Leu Val Ala Ile Leu Leu Gln
65 70 75 80
Pro Ala Thr Ile Leu Ile Asp His Gly His Phe Gln Tyr Asn Thr Val
85 90 95
Met Leu Gly Leu Val Val Ala Ser Leu Asp Ala Ile Leu Ala Gly Arg
100 105 110
Met Leu Trp Ala Cys Leu Phe Phe Val Gly Ala Leu Gly Phe Lys Gln
115 120 125
Met Ala Leu Tyr Tyr Ala Pro Ala Met Phe Ala Phe Leu Leu Gly Val
130 135 140
Cys Ile Phe Pro Arg Val Arg Ile Leu Arg Leu Leu Asn Ile Ala Ile
145 150 155 160
Ile Thr Ile Leu Ala Phe Ala Leu Leu Phe Thr Pro Leu Leu Val Ala
165 170 175
Ala Thr Asn Ala Asp Ala Arg Asp Tyr Leu Ser Ala Ser Ala Glu Pro
180 185 190
Pro Leu Leu Gln Ala Leu Pro Ile Lys Leu Ser Lys Asp Ser Phe Leu
195 200 205
Tyr Ala Pro Val Phe Gln Leu Met Gln Ile Ile His Arg Val Phe Pro
210 215 220
Phe Ala Arg Gly Leu Phe Glu Asp Lys Val Ala Asn Ala Trp Cys Ala
225 230 235 240
Ile His Thr Phe Tyr Lys Leu His Arg Phe Glu Ala Ser Leu Leu Gln
245 250 255
Arg Val Ser Leu Gly Ala Thr Leu Ala Ser Ile Leu Ile Pro Cys Gly
260 265 270
Ile Ile Phe Arg His Pro Arg Ala Ser Leu Leu Leu Pro Thr Leu Ala

```
        275                 280                 285
Ser Val Ala Trp Gly Phe Phe Leu Phe Ser Phe Gln Val His Glu Lys
    290                 295                 300
Ser Val Leu Leu Pro Leu Leu Pro Met Thr Leu Leu Leu Ala Asn Asp
305                 310                 315                 320
Gly Gly Leu Ser Lys Asp Thr Arg Ala Trp Val Gly Trp Ala Asn Val
                325                 330                 335
Leu Gly Ser Trp Thr Met Tyr Pro Leu Leu Lys Arg Asp Glu Leu Arg
            340                 345                 350
Val Pro Tyr Phe Val Met Thr Gly Leu Trp Ala Tyr Leu Met Gly Leu
        355                 360                 365
Pro Pro Thr Ser Leu Glu Thr Tyr Arg Ser Arg Thr Pro Gly Gly Glu
    370                 375                 380
Ser Arg Pro Val Ser Glu Pro Arg Ile Leu Thr Lys Leu Leu His Phe
385                 390                 395                 400
Cys Phe Tyr Leu Ala Met Ile Val Trp His Val Leu Asp Ala Phe Val
                405                 410                 415
Pro Pro Pro Glu Gly Lys Pro Asp Leu Trp Val Val Leu Asn Val Leu
            420                 425                 430
Ile Gly Ala Gly Gly Phe Gly Ile Ala Tyr Leu Trp Cys Met Trp Arg
        435                 440                 445
Leu Ile Thr Gln Cys Trp Gln Ile Asp Arg Lys Ala Ala Glu Glu Glu
    450                 455                 460
Ser Arg Lys Lys Lys Gln
465                 470
```

<210> 38933
<211> 248
<212> PRT
<213> A.fumigatus

<400> 38933

```
Arg Leu His Gly Ser Gly Leu Ser Ala Pro Gly Glu Asp Gly Ala Ser
1               5                   10                  15
Ser Ser Leu Ser Asp Ser Asp Ser Asp Ser Asp Ser Asp Ser Asp Ser
            20                  25                  30
Glu Ser Ser Leu Ser Leu Asp Ser Phe Leu Ala Ala Phe Leu Gly Ala
        35                  40                  45
Ser Ser Ser Ser Ser Glu Ser Asp Ser Asp Ser Glu Asp Ser Glu Val
    50                  55                  60
Ser Ala Leu Ala Phe Thr Ser Phe Leu Thr Ala Phe Ser Ser Ser Asp
65                  70                  75                  80
Ser Asp Ser Asp Ser Asp Ser Glu Ser Asp Ser Asp Ser Glu Ser Glu
                85                  90                  95
Asp Ser Ala Phe Leu Asp Ser Phe Leu Met Ser Phe Leu Thr Gly Phe
            100                 105                 110
Ser Ser Ser Leu Ser Leu Ser Leu Ser Leu Ser Leu Leu Glu Ala Ser
        115                 120                 125
Ser Ile Ser Ser Ser Leu Ser Asp Ser Gly Ser Asp Ser Glu Glu Asp
    130                 135                 140
Ser Ala Phe Leu Asp Ser Phe Phe Thr Ser Phe Leu Ala Gly Phe Ser
145                 150                 155                 160
Ser Ser Leu Ser Leu Ser Leu Leu Glu Val Val Asp Ser Ile Ser Ser
                165                 170                 175
Ser Leu Ser Asp Ser Glu Leu Leu Leu Gly Val Gly Ser Phe Phe Leu
            180                 185                 190
```

```
Arg Leu Glu Phe Ser Leu Ala Ala Thr Ser Arg Ala Ile Cys Leu Leu
        195                 200                 205
Leu Ala Leu Gly Asp Trp Glu Ala Leu Val Thr Pro Ala Ser Leu Thr
    210                 215                 220
Leu Leu Lys Ala Leu Ser Thr Gly Leu Ser Ala Pro Phe Leu Val Thr
225                 230                 235                 240
Asp Leu Val Leu Asp Ile Leu Tyr
                245
```

<210> 38934
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38934

```
Leu Lys Lys Lys Trp Val Pro Gly Arg Asn Ser Val Ser Thr Arg Pro
1               5                   10                  15
Ser Leu Glu Pro Gln Cys Gln Leu Leu Val Leu Ala Ser Ser Ser Thr
            20                  25                  30
Ser Thr Asp Tyr Tyr Ser Ile Ser Leu Leu Gln Ala Val Tyr Leu Ile
        35                  40                  45
Thr Thr Gly Ile Pro His Ala Pro Thr Thr Gly Phe Phe Phe Phe Gly
    50                  55                  60
Asp Ala Leu Tyr
65
```

<210> 38935
<211> 185
<212> PRT
<213> A.fumigatus

<400> 38935

```
Pro Gly Tyr Arg Leu Glu Glu Asn Ser His Leu Leu Gln Pro Pro Val
1               5                   10                  15
Asn Asn Tyr Cys Val Tyr His Pro Ser Ser Pro Ala Thr Ala Gly Tyr
            20                  25                  30
Thr Val Met Ile Val Gly Gly Pro Asn Ala Arg Thr Asp Tyr His Ile
        35                  40                  45
Asn Thr Thr Pro Glu Phe Phe Tyr Gln Tyr Arg Gly Ser Met Leu Leu
    50                  55                  60
Lys Thr Val Asp Thr Ser Val Ser Pro Pro Val Phe Gln Asp Ile Pro
65                  70                  75                  80
Ile His Glu Gly Ser Ile Phe Leu Leu Pro Ala Asn Thr Pro His Cys
                85                  90                  95
Pro Val Arg Phe Lys Asp Thr Val Gly Val Val Met Glu Gln Pro Arg
            100                 105                 110
Pro Lys Asp Ala Val Asp Thr Met Leu Trp Phe Cys Lys Lys Cys Gly
        115                 120                 125
Glu Val Val Trp Glu Lys Arg Phe Val Cys Thr Asp Leu Gly Thr Gln
    130                 135                 140
Val Lys Glu Val Val Glu Glu Phe Ala Ala Asp Gln Glu Lys Arg Thr
145                 150                 155                 160
Cys Lys Ala Cys Gly Thr Ile Ala Glu Thr Arg Tyr Gln Glu Gly Glu
                165                 170                 175
Val Val Gln Pro Pro Arg Phe Leu Glu
            180                 185
```

<210> 38936
<211> 218
<212> PRT
<213> A.fumigatus

<400> 38936
Gly Gly Phe Ser Tyr Val Tyr Leu Val Gln Asp Lys Ala Thr Ser Glu
1 5 10 15
Leu Phe Ala Leu Lys Lys Ile Arg Cys Pro Phe Gly Gln Glu Ser Val
20 25 30
Ser Gln Ala Leu Lys Glu Val Glu Ala Tyr Ser Leu Phe Thr Ser Gln
35 40 45
Pro Asn Ile Ile His Ser Ile Asp His Cys Val Ser Thr Asp Ser Gly
50 55 60
Ser Lys Phe Arg Ser Asp Gly Gly Glu Pro Gly Ser Lys Thr Val Tyr
65 70 75 80
Ile Leu Leu Pro Tyr Tyr Gln Arg Gly Asn Leu Gln Asp Ala Ile Asn
85 90 95
Ala Asn Leu Val Asn His Thr Arg Phe Pro Glu Lys Arg Leu Met Val
100 105 110
Leu Met Leu Gly Val Ala Asn Ala Leu Lys Ala Met His Gln Tyr Arg
115 120 125
Val Lys Ser Gly Ala Gly Ser Thr Arg Arg Ala Lys Ala Val Arg Arg
130 135 140
Glu Gly Glu Ala Ala Asp Ala Gln Leu Ser Met Gln Met Gly Lys Pro
145 150 155 160
Lys Arg Arg Ala Ser Gln Arg Val Asp Glu Glu Asp Ser Glu Asn Glu
165 170 175
Pro Leu Met Asp Asp Glu Val Thr Ile Ser Gln Glu Gly Val Gln Glu
180 185 190
Gly Asp Leu Arg Pro Tyr Ala His Arg Asp Ile Lys Pro Gly Glu Leu
195 200 205
Val Arg Leu Gln Phe Tyr Ala Leu Gly Asp
210 215

<210> 38937
<211> 119
<212> PRT
<213> A.fumigatus

<400> 38937
Glu Asn Gln Leu Leu Ile Ser Thr Thr Gly Tyr Arg Lys Ile Ser Asn
1 5 10 15
Pro Ala Ile Met Ala Thr Thr Ser Gln Pro Pro Leu Arg Phe Thr Gly
20 25 30
His Lys Asn Phe Val Asn Arg Leu Val Phe Ser Thr Leu Thr Gly Arg
35 40 45
Ala Val His Ile Ser Gln Ile Arg Pro Ser Ser Pro Thr Asn Pro Gly
50 55 60
Leu Ala Pro His Glu Ile Ser Phe Leu Arg Leu Leu Glu Ala Val Thr
65 70 75 80
Asn Gly Ser Gln Ile Glu Ile Ser Tyr Thr Gly Thr Ile Val Val Tyr
85 90 95
Lys Pro Gly Leu Val Thr Gly Gly Ile Ala Gly Asn Gly Leu His His
100 105 110

Gly Pro Gly Arg Ser Gly Ser
115

<210> 38938
<211> 715
<212> PRT
<213> A.fumigatus

<400> 38938
Leu Val Phe Leu Leu Asp Phe Trp Thr Pro Ser Val Phe Arg Ser Gly
1 5 10 15
Arg Val Arg Gln Phe Glu His Phe Glu Ala Ala Leu Ser Gln Ile Ser
20 25 30
Asn Ser Ile Ala Met Ala Pro Leu Asp Asp Ile Gln Val Gly Asp Val
35 40 45
Val Asn Val Pro Gly Gly Met Tyr Gly Thr Val Arg Tyr Leu Gly Ser
50 55 60
Val Ala Gly Lys Gln Gly Arg Phe Ala Gly Ile Glu Leu Ala Pro Glu
65 70 75 80
His Ala Lys Arg Gly Lys Asn Asn Gly Asp Val Glu Gly Arg Lys Tyr
85 90 95
Phe Lys Thr Thr Val Pro Gly Ser Gly Ile Phe Val Pro Met Asn Asn
100 105 110
Asn Arg Tyr Val Thr Lys Arg Ser Ser Thr Ser Ala Pro Thr Val Thr
115 120 125
Thr Ala Pro Pro Thr Pro Ser Arg Pro Ile Asn Phe Ser Lys Ser Val
130 135 140
Gly Pro Ser Pro Ala Val Pro Arg Pro Arg Val Arg Arg Pro Ser Leu
145 150 155 160
Pro Arg Pro Glu Ser Pro Arg Gly Pro Pro Pro Ser Lys Leu Ser Leu
165 170 175
Ala Gly Leu Arg Thr Pro Ser Thr Ala Ser Arg Ala Gly Pro Ser Pro
180 185 190
Asn Gly Tyr Pro Arg Ser Pro Val Lys Ala Pro Ser Arg Ala Ser Asp
195 200 205
Arg Thr Pro Ser Arg Met Ser Met Asp Asp Asp Leu Ser Ser Val Arg
210 215 220
Thr Ser Asp Phe His Arg Ser Ser Met Ala Ser Glu Val Gln Glu Leu
225 230 235 240
Lys Asp Gln Ile Lys Ser Leu Glu Lys Gln Leu Leu Asp Arg Asp Lys
245 250 255
Gln Leu Glu Glu Gln Ala Asn Thr Leu Ala Glu Phe Gln Arg Thr Ile
260 265 270
Glu Asp Leu Glu Gly Ser Asp Ala Leu Ser Ile Arg Ala Gln Leu Arg
275 280 285
Glu Lys Asn Glu Arg Ile Ala Gln Leu Thr Ala Glu Phe Asp Leu His
290 295 300
Arg Ala Asp Phe Arg Ser Thr Leu Asp Thr Leu Glu Ile Ala Ala Ser
305 310 315 320
Glu Thr Glu Arg Val Tyr Glu Gln Arg Leu Asp Glu Leu Met Gln Gln
325 330 335
Asn Lys Glu Leu Gln Asp Arg Gly Glu Asp Val Glu Ala Val Ala Arg
340 345 350
Gln Leu Lys Gln Leu Glu Glu Leu Val Ser Glu Leu Glu Glu Gly Leu
355 360 365
Glu Asp Ala Arg Arg Gly Glu Ala Glu Ala Arg Ala Glu Val Glu Phe

```
    370                 375                 380
Leu Arg Gly Glu Val Glu Arg Thr Lys Leu Glu Leu Lys Lys Glu Arg
385                 390                 395                 400
Glu His Ser Ser Ala Met Leu Arg Glu Ala His Ser Gly Gly Asp Gly
                405                 410                 415
Gly Arg Gln Tyr Ser Lys Glu Leu Asp Gln Lys Asp Asp Glu Ile Arg
            420                 425                 430
Gly Leu Lys Ala Ile Ile His Ser Leu Ser Arg Gly Asp Pro Asn Phe
        435                 440                 445
Pro Gly Leu Gln Asn Gly Leu Ala Ser Ser Arg Gln Asp His Asp Ser
    450                 455                 460
Glu His Ile Ala Arg Leu Glu Gln Arg Ile Gln Glu Phe Glu His Ala
465                 470                 475                 480
Thr Glu Ser Lys Asn Tyr Arg Ile Glu Glu Leu Glu Arg Glu Leu Gln
                485                 490                 495
Gln Leu Arg Leu Ser Asn Glu Ser Arg Thr Arg Ser Ser Thr Ile Ser
            500                 505                 510
Ala Pro Ala Pro Pro His Lys Pro Ser Asn Ser Ala Gly Tyr Val Gly
        515                 520                 525
Thr Ala Asn Thr Ile Asn His Ala His Arg Leu Ser Asp Arg Thr Val
    530                 535                 540
Val Pro Asn Asp Trp Gln Glu Gln Pro His Gly Glu Asn Gln Tyr Gln
545                 550                 555                 560
Pro Phe Gly Ser His His Arg Gly Ala Ser Asn Ser Ser Arg His Arg
                565                 570                 575
Leu Glu Thr Met His Glu Ser Asp Gly Arg Ser Asp Asp Gly Asn Ser
            580                 585                 590
Leu Trp Cys Glu Ile Cys Glu Thr Gly Gly His Asp Ile Leu Ser Cys
        595                 600                 605
Thr Asn Ile Leu Gly Ala Glu Thr Lys Asn Glu His Val Arg Pro Val
    610                 615                 620
Glu Gln Ser His His Glu Ala Ser Val Asp Ser Lys Ser Thr Pro Gly
625                 630                 635                 640
Thr Ser Ile Ala Gly Glu Ser Ser Pro Leu Lys Asp Glu Val Ser Ala
                645                 650                 655
Thr Pro Gln Lys Thr Gly Arg Asp Ala Val Leu Glu Gly Leu Lys Gly
            660                 665                 670
Ile Ser Gly Gly Leu Thr Ala Ser Met Ala Pro Val Ala Gly Lys Ala
        675                 680                 685
Ser Gly Val Ile Asp Glu Thr Lys Trp Cys Ala Leu Cys Glu Arg Asp
    690                 695                 700
Gly His Glu Ser Ile Asp Cys Pro Phe Asp Glu
705                 710                 715
```

<210> 38939
<211> 68
<212> PRT
<213> A.fumigatus

<400> 38939

```
Gly Ala Glu Ile His Glu Asp Arg Ser Leu Thr Val Ile Val Asp His
1               5                   10                  15
Asp Ile Thr Cys His Lys Ser Val Ser Gln Arg Ile Lys Leu Gln Thr
            20                  25                  30
His Gln Leu Thr Arg Phe Asp Val Pro Met Arg Ile Arg Ala Lys Val
        35                  40                  45
```

```
Ser Leu Leu Asn Ser Leu Leu Ala Tyr Ser Asn Leu Val Ile His Gln
    50                  55                  60
Arg Leu Val Phe
65
```

<210> 38940
<211> 77
<212> PRT
<213> A.fumigatus

<400> 38940

```
Asp Gln Phe Asp Asp Tyr Arg Glu Ser Thr Ile Gly Ala Ala Phe Leu
1               5                   10                  15
Thr Gln Thr Ile Ser Leu Asp Glu Ser Thr Thr Val Lys Phe Glu Ile
            20                  25                  30
Trp Asp Thr Ala Gly Gln Glu Arg Tyr Lys Ser Leu Ala Pro Met Tyr
        35                  40                  45
Tyr Arg Asn Ala Asn Cys Ala Val Val Val Tyr Asp Ile Thr Gln Ala
    50                  55                  60
Val Arg Ala Pro Ile Thr Phe Ser Asn Ile Arg Leu Leu
65                  70                  75
```

<210> 38941
<211> 559
<212> PRT
<213> A.fumigatus

<400> 38941

```
Trp Phe Gln Val Leu Ile Ser Ala Ala Ala Glu Ala Pro Leu Pro Pro
1               5                   10                  15
Pro Pro Pro Pro Ala Pro Ala Arg Lys Thr Gly Arg Phe Arg Lys Phe
            20                  25                  30
Leu Leu Tyr Leu Ile Leu Thr Ser Gly Phe Ala Tyr Gly Gly Gly Ile
        35                  40                  45
Phe Leu Ala Leu Lys Ser Asp Asn Phe His Asp Phe Phe Thr Glu Tyr
    50                  55                  60
Val Pro Tyr Gly Glu Asp Cys Val Leu Tyr Phe Glu Glu Arg Asp Phe
65                  70                  75                  80
Tyr Arg Arg Phe Pro Asn Thr Leu Arg Asn Gln Asn Arg Ala Pro Lys
                85                  90                  95
Asp Glu Gly His Thr Val Thr Ile Pro Ser Lys Ser Gly Leu Ser Trp
            100                 105                 110
Lys Val Ala Glu Glu Glu Ser Gly Ala Asp Val Ser Gln Lys Gly Pro
        115                 120                 125
His Met Ser Ala Leu Asp Asn Gly Asp Lys Ala Gln Leu Lys Pro Gly
    130                 135                 140
Ala Ala Lys Pro Glu Glu Lys Val Ala Thr Val Glu Lys Val Lys Ala
145                 150                 155                 160
Glu Ser Ala Ala Lys Glu Gln Thr Ala Glu Asp Lys Lys Lys Val Lys
                165                 170                 175
Glu Glu Pro Lys Lys Pro Ala Ala Pro Ala Val Thr Pro Ile Glu Phe
            180                 185                 190
Ala Thr Val Ser Glu Gly Asp Glu Glu Val Val Gln Glu Leu Val Lys
        195                 200                 205
Thr Phe Asn Asp Ile Ile Thr Val Ile Gly Ala Asp Glu Asn Ala His
    210                 215                 220
```

```
Lys Phe Ser Gly Ala Val Asn Lys Ala Lys Glu Glu Leu Arg Thr Ile
225                 230                 235                 240
Gly Glu Lys Ile Ile Ala Ile Arg Asn Glu Ala Arg Lys Ala Ala Gln
                245                 250                 255
Glu Glu Ile Lys Gln Ala His Ala Thr Phe Asp Glu Ser Ala Arg Glu
            260                 265                 270
Leu Ile Arg Arg Phe Glu Glu Ala Arg Ala His Asp Ala Ala Gln Tyr
        275                 280                 285
Arg Glu Glu Phe Glu Ala Glu Arg Glu Arg Leu Ala Arg Ala Tyr Gln
    290                 295                 300
Glu Lys Val Asn Thr Glu Leu Gln Arg Ala Gln Glu Val Ala Glu Gln
305                 310                 315                 320
Arg Leu Lys Asn Glu Leu Val Glu Gln Ala Ile Glu Leu Asn Arg Lys
                325                 330                 335
Tyr Leu His Glu Val Lys Asp Leu Val Glu Arg Glu Arg Glu Gly Arg
            340                 345                 350
Leu Ser Lys Leu Asn Glu Leu Thr Ala Asn Val Asn Leu Leu Glu Lys
        355                 360                 365
Leu Thr Thr Asp Trp Lys Glu Val Ile Asp Thr Asn Leu Lys Thr Gln
    370                 375                 380
Gln Leu Gln Val Ala Val Asp Ala Val Arg Ser Val Leu Glu Arg Ser
385                 390                 395                 400
Thr Val Pro Arg Pro Phe Val Arg Glu Leu Val Ala Val Lys Glu Leu
                405                 410                 415
Ala Ala Gly Asp Pro Val Val Glu Ala Ala Ile Ala Ser Ile Asn Pro
            420                 425                 430
Thr Ala Tyr Gln Arg Gly Ile Pro Ser Thr Ser Gln Ile Ile Glu Arg
        435                 440                 445
Phe Arg Arg Val Ala Asp Glu Val Arg Lys Ala Ser Leu Leu Pro Glu
    450                 455                 460
Asp Ala Gly Ile Ala Ser His Ala Ala Ser Leu Val Leu Ser Lys Val
465                 470                 475                 480
Met Phe Lys Lys Asp Ala Val Ala Gly Ser Asp Asp Val Glu Ser Val
                485                 490                 495
Leu Leu Arg Thr Glu His Leu Leu Glu Glu Gly Asn Leu Asp Asp Ala
            500                 505                 510
Ala Arg Glu Met Asn Thr Leu Lys Gly Trp Ala Lys Ile Leu Ser Lys
        515                 520                 525
Asp Trp Leu Ser Asp Val Arg Arg Val Leu Glu Val Lys Gln Ala Leu
    530                 535                 540
Glu Val Arg Leu Gly Pro Phe Thr Ser Leu Phe His Leu Tyr Arg
545                 550                 555
```

<210> 38942
<211> 186
<212> PRT
<213> A.fumigatus

<400> 38942

```
His Arg Pro Phe Arg Trp Thr Lys Ala Gln Arg Ser Asn Ser Arg Tyr
1               5                   10                  15
Gly Ile Pro Leu Val Arg Asn Asp Thr Ser Pro Trp Leu Gln Cys Thr
            20                  25                  30
Thr Gly Met Arg Thr Val Leu Leu Leu Ser Thr Ile Ser Leu Arg Leu
        35                  40                  45
Tyr Ala Pro Arg Ser Pro Ser Leu Ile Ser Gly Tyr Phe Glu Arg Leu
```

```
    50                  55                  60
Thr Arg Ala Ile Gly Lys Gln Ser Ser Leu Asp Lys Ala Lys Ser Trp
65                  70                  75                  80
Val Lys Glu Leu Gln Arg Gln Ala Asn Glu Asn Ile Val Ile Ala Leu
                85                  90                  95
Ala Gly Asn Lys Leu Asp Leu Val Thr Glu His Pro Asp Lys Arg Ala
            100                 105                 110
Ile Pro Thr Ala Asp Ala Glu Ala Tyr Ala Arg Glu Ala Gly Leu Leu
        115                 120                 125
Phe Phe Glu Thr Ser Ala Lys Thr Ser Thr Asn Val Lys Glu Leu Phe
    130                 135                 140
Ala Ala Ile Ala Lys Lys Leu Pro Leu Asp Gln Ala Gly Pro Arg Asn
145                 150                 155                 160
Leu Arg Thr Thr Pro Arg Pro Gly Val Asp Leu Arg Pro Glu Ala Pro
                165                 170                 175
Gly Thr Gln Gly Ala Gly Ala Cys Asn Cys
            180                 185
```

<210> 38943
<211> 153
<212> PRT
<213> A.fumigatus

```
<400> 38943
Ala Arg Ala Ser Ser Lys Arg Arg Ile Ser Ser Arg Ala Asp Ser Ser
1               5                   10                  15
Lys Val Ala Trp Ala Cys Leu Ile Ser Ser Trp Ala Ala Phe Arg Ala
            20                  25                  30
Ser Leu Arg Met Ala Met Ile Phe Ser Pro Ile Val Arg Ser Ser Ser
        35                  40                  45
Phe Ala Leu Leu Thr Ala Pro Glu Asn Leu Cys Ala Phe Ser Ser Ala
    50                  55                  60
Pro Met Thr Val Ile Met Ser Leu Lys Val Leu Thr Ser Ser Cys Thr
65                  70                  75                  80
Thr Ser Ser Ser Pro Ser Leu Thr Val Ala Asn Ser Met Gly Val Thr
                85                  90                  95
Ala Gly Ala Ala Gly Phe Leu Gly Ser Ser Phe Thr Phe Phe Leu Ser
            100                 105                 110
Ser Ala Val Cys Ser Leu Ala Ala Asp Ser Ala Leu Thr Phe Ser Thr
        115                 120                 125
Val Ala Thr Phe Ser Ser Gly Leu Ala Ala Pro Gly Leu Ser Cys Ala
    130                 135                 140
Leu Ser Pro Leu Ser Ser Ala Leu Ile
145                 150
```

<210> 38944
<211> 152
<212> PRT
<213> A.fumigatus

```
<400> 38944
Tyr Ser Gln Arg Lys Asn Asp Pro Arg Pro Arg Gln Pro Ser Arg Pro
1               5                   10                  15
Leu Leu Ser Cys Pro Leu Gly Asn Val Gln Ser Arg Ser Ala Pro Val
            20                  25                  30
Arg Gly Pro Arg Arg Pro Arg Leu Ala Ser Arg Arg Arg Ser Pro Pro
```

```
        35                  40                  45
Asp Gln Pro Ala Ala Ala Arg Gln His His Pro Asn His Gln Pro Arg
    50                  55                  60
Arg His Pro Pro Arg Pro Lys Pro Arg Arg Thr Ala Arg Arg His Pro
65                  70                  75                  80
Pro Arg His Arg Ala Arg Thr Leu His His Pro Pro His Val Arg Arg
                85                  90                  95
His Gly His Ala Pro Arg Gly Val Leu Arg Ser Glu Arg Arg Gly Phe
            100                 105                 110
Pro His Ala Arg Asp Cys Val Pro Ala Ala His Thr Arg Gly Ala Ser
        115                 120                 125
Pro Thr Ser Ile Pro Gly Ile His Asp Cys Ala Pro Asp Gly Val Ala
    130                 135                 140
Glu Arg Glu Asp Glu Gly Ala Gly
145                 150
```

<210> 38945
<211> 476
<212> PRT
<213> A.fumigatus

<400> 38945

```
Thr Val Asp Thr Val Lys Gly Lys Met Thr Gln Asp Gln Asp Asn Leu
1               5                   10                  15
Arg Ala Arg Phe Cys His Ala Leu Ser Glu Met Tyr Lys Ala Glu Val
            20                  25                  30
Pro Leu Tyr Gly Asp Leu Val Asp Leu Val Trp Gln Ala Asp Ala Glu
        35                  40                  45
Ala Leu Gln Thr Ser Gln Arg Gln His Gly Asn Thr Thr Pro Ile Ile
    50                  55                  60
Asn Pro Asp Asp Ile Leu Pro Ala Arg Asn Arg Val Glu Arg His Gly
65                  70                  75                  80
Ala Ile Arg Leu Gly Thr Ala Arg Glu Leu Ser Thr Ile Arg Arg Met
                85                  90                  95
Phe Ala Val Met Gly Met Leu Pro Val Gly Tyr Tyr Asp Leu Ser Val
            100                 105                 110
Ala Gly Phe Pro Met His Ala Thr Ala Phe Arg Pro Arg Thr Arg Glu
        115                 120                 125
Ala Leu Ala Arg His Pro Phe Arg Val Phe Thr Thr Val Leu Arg Met
    130                 135                 140
Glu Leu Leu Ser Glu Arg Thr Arg Ala Leu Ala Glu Arg Ala Leu Ala
145                 150                 155                 160
Gln Arg Glu Ile Phe Thr Pro Arg Leu Leu Glu Leu Leu Glu Leu Ala
                165                 170                 175
Glu Thr Asn Gly Ser Leu Ser Cys Lys Glu Cys Asp Glu Phe Ile Ala
            180                 185                 190
Glu Gly Leu Glu Thr Phe Arg Trp His Ser Arg Ala Ala Val Thr Leu
        195                 200                 205
Glu Glu Tyr Arg Ile Leu Lys Ala Glu His Pro Leu Val Ala Asp Ile
    210                 215                 220
Val Ser Phe Pro Ser Cys His Ile Asn His Leu Thr Pro Arg Thr Ile
225                 230                 235                 240
Asp Ile Asp Leu Val Gln Arg Met Met Arg Glu Arg Gly Met Pro Val
                245                 250                 255
Lys Glu Arg Ile Glu Gly Pro Pro Cys Arg Val Asn Pro Ile Leu Leu
            260                 265                 270
```

```
Arg Gln Thr Ser Phe Lys Ala Leu Glu Glu Thr Val Tyr Phe Arg Asp
        275                 280                 285
Ala Gly Gly Glu Tyr Val Arg Gly Ser His Thr Ala Arg Phe Gly Glu
    290                 295                 300
Val Glu Gln Arg Gly Tyr Ala Leu Thr Arg Lys Gly Arg Arg Leu Tyr
305                 310                 315                 320
Asp Gln Ile Leu Ala Arg Val Asn Arg Glu Ala Ala Gly Leu Glu Pro
                325                 330                 335
Val Glu Tyr Glu Arg Ile Leu Arg Lys Cys Phe Glu Glu Phe Pro Asp
            340                 345                 350
Asp Leu Val Gln Leu Gln Thr Gln Lys Leu Ala Phe Phe Cys Tyr Arg
        355                 360                 365
Val Ala Pro Tyr Ala Leu Gln Arg Lys Tyr Gln Gly Val Glu Ser Val
    370                 375                 380
Ser Leu Ala Gln Leu Leu Lys Asp Asn Val Leu Asp Tyr Glu Pro Ile
385                 390                 395                 400
Thr Tyr Glu Asp Phe Leu Pro Leu Ser Ala Gly Gly Ile Phe Asn Ser
                405                 410                 415
Asn Leu Ala Asn Met Ser Gln Ser Lys Gln Pro Ile Met Glu Ala Asp
            420                 425                 430
Ala Asp Ala Asp Leu Asp Gly Phe Gln Arg Met Leu Gly Ala Pro Val
        435                 440                 445
Leu Asp Glu Phe Tyr Leu Tyr Glu Gln Ile Gln Gln Glu Ser Leu Glu
    450                 455                 460
Thr Cys Cys Gln Gln Leu Gly Ile Gly Ser Ile Asp
465                 470                 475
```

<210> 38946
<211> 309
<212> PRT
<213> A.fumigatus

<400> 38946

```
Ile Cys Gln Leu Pro Asn Lys Asp Ala Phe Arg Gln Arg Leu Gly Thr
1               5                   10                  15
Ala Lys Met Arg Thr Phe Tyr Leu Leu Ser Leu Ser Leu Val Ala Ala
            20                  25                  30
Ala Glu Arg Pro Ser Lys Pro Asn Leu Leu Ser His Gly Gln Lys Asp
        35                  40                  45
Pro Leu Leu Gly Thr Phe Phe Gly Thr Pro Gly Ala Asp Ala Thr Phe
    50                  55                  60
Asp Tyr Val Val Val Gly Gly Gly Asn Ala Gly Leu Thr Val Ala Ser
65                  70                  75                  80
Arg Leu Ala Gln Asn Arg Ser Ala Ser Val Ala Val Ile Glu Ala Gly
                85                  90                  95
Ser Phe Tyr Glu Ile Asp Asn Gly Asn Lys Ser Ile Val Pro Gly Tyr
            100                 105                 110
Ala Pro Tyr Phe Ala Gly Thr Asp Pro Glu Asp Tyr Gln Pro Leu Ile
        115                 120                 125
Asp Trp Gly Phe Val Thr Thr Pro Gln Pro Gly Ala Gly Asn Arg Thr
    130                 135                 140
Ala His Tyr Ala Arg Gly Lys Thr Leu Gly Gly Ser Ser Ala Arg Asn
145                 150                 155                 160
Phe Met Leu Tyr His Arg Pro Thr Ala Asp Ser Met Gln Arg Trp Ala
                165                 170                 175
Asp Glu Ala Ser Asp Glu Ser Tyr Thr Phe Asp Arg Met Leu Pro Tyr
```

```
            180                 185                 190
Phe Lys Lys Ser Cys His Tyr Thr Pro Pro Asp Gln Ser Leu Tyr Val
        195                 200                 205
Asn Ser Thr Asn Thr Gln Thr Pro Asp Ala Phe Glu Pro Ser Gly Gly
    210                 215                 220
Pro Leu Gln Val Ser Phe Gly Asn Ser Val Asp Val Phe Gly Thr Trp
225                 230                 235                 240
Ala Gln Lys Ala Phe Thr Ala Val Gly Leu Glu Glu Ile Asp Gly Leu
                245                 250                 255
Asn Ser Gly Arg Leu Leu Gly Ala Ala Tyr Gly Thr Ser Thr Ile Asn
            260                 265                 270
Pro Lys Asn Ala Gln Arg Ser Ser Ser Glu Ala Ser Phe Leu Gln Glu
        275                 280                 285
Ala Met Ala Gly Val Arg Leu Leu Arg Ser Thr Ser Ser Ala Met Gly
    290                 295                 300
Ala Glu Asn Pro Val
305
```

<210> 38947
<211> 70
<212> PRT
<213> A.fumigatus

<400> 38947

```
Ile Gln Lys Ile Pro Thr Asn Thr Arg Cys Trp Pro Pro Pro Phe Ser
1               5                   10                  15
Leu Ile Val Pro Leu Ile Ile Asn Gln Leu Glu His Asn Gly Gly Asn
            20                  25                  30
Leu Cys Pro Thr Thr Phe Pro Thr Lys Val Val Leu Phe Lys Lys Ser
        35                  40                  45
Leu Val Ser Asn Phe Ser Asn Ile Tyr Tyr Leu Ile Ser Phe Asn Thr
    50                  55                  60
Lys Leu Phe Val His His
65                  70
```

<210> 38948
<211> 385
<212> PRT
<213> A.fumigatus

<400> 38948

```
Glu Leu His Thr Glu Pro Pro Arg Ser Thr Arg Arg Thr His Ser Val
1               5                   10                  15
Arg Arg Pro Arg Arg Val Ser Ser Arg Arg Pro Trp Arg Gly Phe Ala
            20                  25                  30
Ser Ser Asp Leu His Gln Ala Pro Trp Ala Gln Lys Ile Leu Phe Asp
        35                  40                  45
Glu Asn Lys Ala Ala Thr Gly Val Gln Val Ser Thr Ala Gly Thr Phe
    50                  55                  60
Gly Thr Pro Pro Val Ser Tyr Lys Leu Asn Ala Arg Lys Glu Val Ile
65                  70                  75                  80
Ile Ser Ala Gly Ala Phe Gln Ser Pro Gln Leu Leu Met Val Ser Gly
                85                  90                  95
Val Gly Ala Cys Asp Gln Leu Ser Lys Phe Gly Ile Asp Cys Ile His
            100                 105                 110
Asp Leu Pro Gly Val Gly Gln Asn Leu Gln Asp His Val Tyr Phe Gly
```

```
        115                 120                 125
Ser Val Arg Arg Val Asn Val Leu Thr Ala Ser Ala Ser Ala Asn Asp
    130                 135                 140
Pro Ser Leu Ala Thr Arg Glu Val Glu Gln Tyr Leu Ala Asn Ala Thr
145                 150                 155                 160
Gly Pro Leu Ser Ile Phe Gly Ala Gly Tyr Tyr Gly Phe Glu Lys Leu
                165                 170                 175
Pro Glu Pro Tyr Arg Ser Gln Leu Ser Glu Thr Ser Ile Gln Ala Leu
            180                 185                 190
Ser Ser Val Pro Arg Asp Trp Pro Glu Ile Glu Trp Leu Pro Val Asn
        195                 200                 205
Ser Trp Ile Gly Asp Gly Ser Asn Tyr Met Thr Gly Asp Pro Ser Asp
    210                 215                 220
Gly His Asn Tyr Ala Thr Ile Ala Thr Ala Leu Val Ala Pro Phe Ser
225                 230                 235                 240
Arg Gly Ser Val Thr Leu Ala Asp Ala Ser Met Asn Thr Pro Pro Val
                245                 250                 255
Ile Asp Pro Gln Trp Leu Val Asp Pro Thr Asp Val Asp Leu Ala Ile
            260                 265                 270
Gln Ser Phe Lys Arg Gln Arg Gln Val Trp Glu Val Leu Val Arg Met
        275                 280                 285
Gly Ile Ala Asp Ala Arg Glu Ala Tyr Pro Gly Glu His Val Gln Thr
    290                 295                 300
Asp Ser Gln Ile Arg Glu Tyr Leu Ala Lys Ser Val Ile Pro Val Phe
305                 310                 315                 320
His Val Ala Gly Ser Cys Lys Met Gly Arg Lys Asp Asp Pro Leu Ala
                325                 330                 335
Val Leu Asp Asn Thr Ala Arg Val Phe Gly Val Gln Asn Leu Arg Val
            340                 345                 350
Val Asp Ala Ser Ser Phe Pro Phe Ile Thr Pro Gly His Pro Gln Ala
        355                 360                 365
Val Val Tyr Ala Leu Ala Glu Lys Ile Ala Asp Val Ile Leu Ala Gly
    370                 375                 380
Arg
385
```

<210> 38949
<211> 333
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (73)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38949

```
Met Phe Glu Lys Phe Glu Thr Arg Asp Phe Leu Asn Lys Thr Thr Leu
1               5                   10                  15
Val Gly Asn Val Val Gly His Arg Phe Pro Pro Leu Cys Ser Ser Trp
            20                  25                  30
Leu Ile Ile Asn Gly Thr Ile Arg Glu Lys Gly Gly Gly Gln His Arg
        35                  40                  45
Val Phe Val Gly Ile Phe Trp Ile Tyr Phe Cys Glu His Gly Arg Pro
    50                  55                  60
Leu Thr Thr Ser Pro Thr Gln Ile Xaa Gly Ser Ile Gly Phe Val Leu
```

```
65                  70                  75                  80
Arg Trp Gly Gly Arg Arg Asp Leu Pro Arg Asp Leu Ser Asp Leu Ile
                85                  90                  95
Gln Ala Glu Asp Gln Thr Asn Ser Pro Cys Ser Pro Glu Gln Arg Trp
            100                 105                 110
Gln Glu Arg Ser Pro Tyr Pro Trp Glu Gln Gln His Asn Ala Ile Leu
        115                 120                 125
Arg Pro Ser Phe Arg Ala Cys Val His Gln Ala Thr Asn Thr Ser Ser
    130                 135                 140
Ser Ser Ser Thr Ser His Leu Glu Asn Pro Leu Ser Ala Thr Pro Gln
145                 150                 155                 160
Ala Gln Ser Ser Thr Pro Thr Ala Gln Thr Pro Pro Arg Pro Ser Gln
                165                 170                 175
Asp Gln Ala Ser Pro Leu Arg Leu Thr Lys Ser Leu Leu Glu Lys Leu
            180                 185                 190
Pro Tyr Leu Thr Ser Gln Lys Pro His Tyr Ile Thr Ala His Leu His
        195                 200                 205
Ala Arg Pro Tyr Leu Leu Thr Ala Gly Asp His Leu Arg Leu Pro Phe
    210                 215                 220
Phe Met Arg Gly Val Lys Pro Gly Asp Ile Leu Arg Phe Asn Arg Ala
225                 230                 235                 240
Ser Val Leu Gly Ser Arg Asp Phe Thr Leu Lys Gly Ala Pro Tyr Ile
                245                 250                 255
Asp Glu Arg Leu Phe Glu Cys Arg Val Arg Val Met Gly Val Asp Ala
            260                 265                 270
Glu Pro Met Arg Val Lys Glu Lys Thr Lys Arg Arg Gln Arg His Val
        275                 280                 285
Arg Lys Val Lys Ser Lys His Lys Tyr Thr Leu Leu Arg Val Met Asp
    290                 295                 300
Val Lys Val Lys Thr Ala Glu Glu Leu Leu Glu Gln Gly Ala Val Val
305                 310                 315                 320
Val Glu Glu Gly Asp Val Pro Lys Leu Glu Ala Asn Thr
                325                 330
```

<210> 38950
<211> 122
<212> PRT
<213> A.fumigatus

```
<400> 38950
Trp Ala Arg Ser Arg Ala His Tyr Pro Ser Thr Thr Ala Pro Ala Lys
1               5                   10                  15
Gln Ile Pro Arg Pro Asp Ile Ser Ser Ala Arg His Thr Val Pro Pro
            20                  25                  30
Asp Asn Arg Arg Lys Pro Val Ser Ala Ser Ala Ala Ala Pro Asp His
        35                  40                  45
Gln Glu Thr Pro Arg Asn Ile Ser Ser Arg Ser Ser His Thr Pro Pro
    50                  55                  60
Ala Pro Ser Gln Pro Pro Arg Asp Ser Pro Ser Gln Glu Ser Asp Arg
65                  70                  75                  80
Thr Thr Gly Ala Leu Ser Ala Ser Ala His Thr Pro Ala Ala Arg Pro
                85                  90                  95
Pro Gln Thr Ala Pro Tyr Ala Ser Pro Ser Arg Thr His Pro Pro His
            100                 105                 110
His Glu Ser Arg Pro Ser Pro Pro Ala Pro
        115                 120
```

<210> 38951
<211> 212
<212> PRT
<213> A.fumigatus

<400> 38951
Arg Gln Glu Val Leu Val Arg Asp Gly Leu Val Val Glu His Ile Ile
1 5 10 15
Leu Gln Gln Leu Arg Gln Arg Asn Arg Phe His Ala Leu Ile Phe Pro
20 25 30
Leu Gln Gly Ile Arg Cys His Pro Ile Thr Glu Glu Ser Gln Phe Leu
35 40 45
Arg Leu Gln Leu His Gln Ile Ile Arg Lys Leu Leu Glu Thr Phe Pro
50 55 60
Gln Asp Pro Leu Ile Leu His Arg Leu Gln Ala Ser Arg Leu Ala Ile
65 70 75 80
His Pro Arg Lys Asn Leu Ile Val Gln Pro Ala Pro Phe Pro Arg Gln
85 90 95
Arg Ile Pro Pro Leu Leu Asp Leu Pro Lys Pro Arg Arg Met Arg Ala
100 105 110
Pro His Val Leu Thr Pro Arg Ile Thr Lys Val Asp Arg Leu Leu Gln
115 120 125
Arg Leu Glu Ala Arg Leu Thr Gln Glu Asn Gly Val His Thr Ala Arg
130 135 140
Trp Thr Leu Asp Ala Phe Phe Asn Trp His Pro Pro Leu Thr His His
145 150 155 160
Pro Leu His Glu Ile Asn Val Asp Arg Pro Arg Gly Gln Met Val Asp
165 170 175
Val Ala Ala Gly Glu Gly Asp Asp Ile Ser His Gln Gly Met Leu Cys
180 185 190
Leu Glu Asn Ala Val Leu Leu Gln Arg Asp Arg Arg Pro Arg Met Pro
195 200 205
Pro Glu Gly Leu
210

<210> 38952
<211> 370
<212> PRT
<213> A.fumigatus

<400> 38952
Ala Glu Gly Leu Gln Glu Gln Phe Asp Gln Gly Glu His Thr Gly Lys
1 5 10 15
Trp Tyr Ile Ala Glu Asn Ser Ser Asp Ala Asn Phe Ala Cys Ser Gln
20 25 30
Met Gly Asn Glu Asp Leu Gly Leu His Tyr His Gln Ile Gly Asn Leu
35 40 45
Val Ala Ala Ser Lys Ala Tyr Ser Arg Met Arg Asp Tyr Cys Thr Thr
50 55 60
Pro Ser His Ile Ala Ser Met Leu Phe Lys Ile Ile Asn Val Ala Ile
65 70 75 80
Glu Arg Gly Asp Trp Leu Ser Val Gln Ser Asn Val His Arg Leu Arg
85 90 95
Asn Leu Gln Ser Lys Pro Glu Glu Gln Ala Lys Asn Gln Pro Lys Ile
100 105 110

```
Ser Ala Ala Leu Gly Leu Ser Gln Leu His Ser Gly Ser Tyr Leu Asp
        115                 120                 125
Ala Ala Asn Ser Phe Leu Thr Thr Asp Pro Ser Leu Gly Asp Ser Tyr
    130                 135                 140
Asn Glu Val Val Thr Ser Asn Asp Val Ala Val Tyr Gly Gly Leu Cys
145                 150                 155                 160
Ala Leu Ala Ser Met Asp Cys Asn Glu Leu Gln Arg Arg Val Leu Asp
                165                 170                 175
Asn Asn Ser Phe Arg Asn Phe Leu Glu Leu Glu Pro His Ile Arg Arg
            180                 185                 190
Ala Ile Ser Phe Phe Cys Asn Ser Lys Phe Arg Pro Cys Leu Glu Ile
        195                 200                 205
Leu Glu Ser Tyr Lys Ala Asp Tyr Leu Leu Asp Ile His Leu Gln Arg
    210                 215                 220
His Val Ser Thr Leu Phe Thr Arg Ile Arg Thr Lys Ala Ile Gln Gln
225                 230                 235                 240
Tyr Leu Val Pro Phe Ser Arg Val Thr Leu Asp Ser Met Leu Lys Ile
                245                 250                 255
Phe Ala Pro Gly Val Ala Ala Gly Gln Ala His Pro Thr Asp Phe Asn
            260                 265                 270
Ser Pro Phe Val Gln Glu Leu Ile Thr Leu Ile Gln Asp Gly Thr Leu
        275                 280                 285
Asp Ala Arg Ile Asp Leu Glu Lys Gly Val Leu Val Ser Lys Gln Thr
    290                 295                 300
Asp Leu Arg Thr Asp Val Gln Arg Ala Ala Leu Glu Ser Leu Val Asn
305                 310                 315                 320
Phe Arg Lys Glu Ala His Leu Arg Leu Leu Arg Thr Asn Ile Leu Arg
                325                 330                 335
Ala Gly Leu Glu Val Arg Ala Pro Gly Asp Asp Arg Lys Leu Arg Pro
            340                 345                 350
Ala Asp Arg Gly Val Gly Lys Gly Leu Ala Gly Leu Gly Gly Lys Tyr
        355                 360                 365
Ser Arg
    370
```

<210> 38953
<211> 125
<212> PRT
<213> A.fumigatus

<400> 38953

```
Pro Asn Ser Leu Val Ile His Pro Ala Glu Ser His Pro Leu Val Ile
1               5                   10                  15
Leu His Ala Ile Ala Ser Arg Asn Leu Ser Thr Ser Gln Lys His Gln
            20                  25                  30
Arg Asn Tyr Arg Phe Thr Lys Ala Tyr Gly Ser Tyr Gln Asp Leu Leu
        35                  40                  45
Asp Asp Pro Asp Val Asp Ile Val Tyr Ile Ser Thr Pro Asn Ser Leu
    50                  55                  60
His Tyr Glu Trp Ala Ala Lys Ala Leu Gln Ala Gly Lys His Val Leu
65                  70                  75                  80
Cys Glu Lys Pro Phe Thr Ala Asn Ala Asp Glu Ala Lys Lys Leu Val
                85                  90                  95
Glu Leu Ala Arg Glu Lys Gly Leu Ile Val Glu Glu Ala Val Ser Leu
            100                 105                 110
Phe Ser Phe Ser Val Cys Ala Ala Gly Ala Ala Gly Trp
```

115 120 125

<210> 38954
<211> 217
<212> PRT
<213> A.fumigatus

<400> 38954
Val Leu Val Phe Leu Cys Ala Asn Ala Ser Ala Val Val Asp Lys Gly
1 5 10 15
Ile Gly Gly Ser Ala Met Asp Met Thr Tyr Ala Leu Ser Phe Thr Arg
20 25 30
Tyr Ala Leu His Ala Gln Leu Pro Gln Glu Ile Ile Ser Val Ser Val
35 40 45
Arg Pro Ser Lys Asp Asp Pro Arg Val Asp Glu Ala Met Tyr Ala His
50 55 60
Ile Asp Phe Gln Gly Pro Asp Gly Asn Pro Val His Ser Arg Val Tyr
65 70 75 80
Thr Asp Met Ala Arg Glu Lys Val Ala Gly Val Ile Pro Arg Val Trp
85 90 95
Glu Leu Pro Ser Ile Glu Val Glu Thr Glu Lys Ala Ile Ile Tyr Tyr
100 105 110
Tyr Asn Ala Met Met Pro His Leu Tyr His Tyr Ile Ser Ile Gln Asp
115 120 125
Lys Thr Thr Gly Lys Val Ser Tyr Lys Lys Gln Tyr Ser Gly Gly Pro
130 135 140
Leu Trp Gly Asn Val Val Thr Ser Thr Gly Glu Lys Gly Gly Asn Pro
145 150 155 160
His Trp Ser Thr Tyr Arg Trp Gln Leu Glu Ala Phe Val Asp Ala Val
165 170 175
Lys Gly Lys Thr Pro Ala Tyr Trp Val Ser Gly Glu Glu Ser Ile Trp
180 185 190
Gln Met Glu Ser Ile Asp Ser Leu Tyr Lys Ala Ala Asn Leu Pro Met
195 200 205
Arg Pro Ser Gln Gly Thr Lys Leu Gly
210 215

<210> 38955
<211> 85
<212> PRT
<213> A.fumigatus

<400> 38955
Met Gly Ser Ile Leu Pro Thr Val Thr Arg Gly Phe Gly Gln Phe Ser
1 5 10 15
Thr Ser Asn Asn Arg His Cys Ile Cys Cys Val Ile Val Phe Val Val
20 25 30
Ile Met Ala Leu Val Asp Gln Ala Ala Thr Phe Leu His Gln Tyr Val
35 40 45
Tyr Ser Trp Leu His Ser Ile Pro Ser Lys Thr Pro Asp Ala Leu Lys
50 55 60
Leu Gly Val Ile Ser Thr Ala Gln Ile Asn Pro Ala Ala Ser Lys Ala
65 70 75 80
Tyr Phe Val Ser Phe
85

<210> 38956
<211> 252
<212> PRT
<213> A.fumigatus

<400> 38956
Leu Pro Asp Pro Arg Asp His Ala Arg Asp Phe Leu Ala Arg His Val
1 5 10 15
Arg Ile His Ala Ala Val His Gly Val Ala Val Arg Ala Leu Glu Val
20 25 30
Asp Met Arg Val His Gly Phe Val Asn Ala Arg Val Ile Leu Gly Arg
35 40 45
Pro His Ala Asp Gly Asp Asp Leu Leu Arg Glu Leu Arg Met Gln Cys
50 55 60
Ile Ala Ser Lys Arg Gln Ser Ile Gly His Val His Cys Arg Ala Ala
65 70 75 80
Tyr Pro Leu Val Asn His Cys Thr Cys Ile Ser Thr Gln Lys Tyr Gln
85 90 95
Asn Ser Leu Thr Cys Gln Val Lys Leu Pro Pro Asp Ile Thr Pro Gly
100 105 110
Asp Thr Arg Thr Ser Arg His Ser Gly Leu Arg Thr Asp Tyr Leu Pro
115 120 125
Val Phe Ser Arg Ile Gln Asp Leu Ala Pro Cys Met Arg Gly Arg Met
130 135 140
Glu Leu Pro Met Glu Leu His Leu Ser Pro Pro Arg Cys Thr Cys Arg
145 150 155 160
Ala Asn Arg Lys Arg Lys Glu Thr Tyr Ser Leu Leu Asn Asn Gln Pro
165 170 175
Leu Leu Pro Arg Gln Leu His Gln Leu Leu Arg Leu Val Arg Ile Arg
180 185 190
Arg Glu Arg Phe Leu Ala Glu His Met Leu Pro Gly Leu Glu Arg Leu
195 200 205
Arg Arg Pro Leu Val Val Gln Ala Val Arg Arg Gly Asn Val His Asp
210 215 220
Ile Asp Val Arg Ile Val Gln Glu Ile Leu Ile Arg Ala Val Gly Phe
225 230 235 240
Gly Lys Thr Val Val Pro Leu Val Leu Leu Gly Cys
245 250

<210> 38957
<211> 79
<212> PRT
<213> A.fumigatus

<400> 38957
Ala Pro Arg His Arg Arg Arg Gly Leu Thr Ala Glu Phe Thr Ala Ser
1 5 10 15
Phe Leu Leu His Asn Lys Thr Val Ile Trp Trp Phe Leu Tyr Gly Ile
20 25 30
Gln Thr Ile Ser Ser Ala Ser Met Arg Lys Gln Val Ile Ser Ser Ser
35 40 45
Asp Thr Val Lys Asp Pro Val Thr Met Val Pro Asp Tyr Ile Ser Tyr
50 55 60
Gly Ser Cys His His Gly Ile Asn Leu Cys Cys Arg Ile Pro Val
65 70 75

<210> 38958
<211> 692
<212> PRT
<213> A.fumigatus

<400> 38958

```
Thr Lys Leu His Ser His Ser Pro Ser Asn His Pro Gly Ile Ser Arg
1               5                  10                  15
Pro Cys Phe Leu Ser Leu Gln Phe Leu Leu Leu Ser Leu Leu Lys Arg
            20                  25                  30
Ile Thr Ile Val His Ser Tyr Thr Leu Gln Ser Phe Trp Cys Ile Ser
        35                  40                  45
Ile Val Asn Asn Phe Asn Met Val Gln Gln Asp Pro Gln Glu Val Ala
    50                  55                  60
His Leu Val Gly Ala Leu Glu Ala Ser Ser Lys Lys Asn Arg Ser Glu
65                  70                  75                  80
Gly Lys Arg Thr Phe Thr Cys Lys Lys Ser Thr Phe Ala Val Ala Gly
                85                  90                  95
Ser Asp Asn Ile Ser Val Asp Ser Trp Arg Phe Met Asp Trp Asp Tyr
            100                 105                 110
Lys Arg Ser Asn Leu Pro Thr Tyr Ala Arg Gly Leu Phe Thr Ser Lys
        115                 120                 125
Arg Lys Asp Gly Thr Pro Glu Ile Val Val Arg Gly Tyr Asp Lys Phe
    130                 135                 140
Phe Asn Val Asp Glu Val Pro Thr Thr Lys Trp Gln Asn Ile Glu Thr
145                 150                 155                 160
Asn Thr Arg Gly Pro Tyr Glu Leu Ser Val Lys Glu Asn Gly Cys Ile
                165                 170                 175
Ile Phe Ile Ser Gly Leu Glu Asp Gly Ser Leu Leu Val Cys Ser Lys
            180                 185                 190
His Ser Thr Gly Val Arg Gln Asp Thr Asn Leu Ser His Ala Gln Ala
        195                 200                 205
Gly Glu Lys Trp Val Glu Arg His Val Ala Ser Thr Gly Lys Ser Val
    210                 215                 220
Lys Asp Leu Ala Arg Glu Leu Arg Arg Leu Asn Leu Thr Ala Val Gly
225                 230                 235                 240
Glu Leu Cys Asp Asp Ser Phe Glu Glu His Val Leu Ala Tyr Asp Pro
                245                 250                 255
Ala Ala Ala Gly Ile Tyr Leu His Gly Leu Asn Phe Asn Val Pro Gln
            260                 265                 270
Phe Ala Thr Leu Pro Ser Ser Glu Val His Asn Phe Ala Asp Thr Trp
        275                 280                 285
Gly Phe Lys Lys Ala Lys Tyr Leu Val Tyr Asp Asp Ile His Ser Val
    290                 295                 300
Lys Lys Phe Leu Asp His Cys Ala Glu Thr Gly Thr Trp Asp Gly Arg
305                 310                 315                 320
Glu Thr Glu Gly Phe Val Ile Arg Cys Gln Leu Gly Glu Gly Gly Gly
                325                 330                 335
Pro Tyr Arg Asp Trp Phe Phe Lys Tyr Lys Phe Glu Glu Pro Tyr Leu
            340                 345                 350
Met Tyr Arg Gln Trp Arg Glu Cys Thr Lys Ala Ile Ile Ala Gly Lys
        355                 360                 365
Phe Pro Asn Ile Arg Lys His Gln Lys Ile Thr Glu Glu Tyr Leu His
    370                 375                 380
Tyr Ala Arg Arg Gln Leu Ser Gln Asn Pro Lys Leu Gly Asp Leu Tyr
385                 390                 395                 400
```

```
Lys Gln Asn His Gly Ile Ile Ser Met Arg Glu Gly Phe Leu Lys Glu
                405                 410                 415
Arg Gly Leu Lys Gly Ser Asp Ile Ile Ala Met Glu Ala Gly Lys Pro
            420                 425                 430
Asp Glu Val Thr Arg Asp Val Ile Leu Ala Pro Ile Ala Ser Leu Gly
        435                 440                 445
Cys Gly Lys Thr Thr Leu Ala Leu Ala Leu Thr Lys Leu Phe Gly Trp
    450                 455                 460
Gly His Val Gln Asn Asp Asn Ile Pro Lys Gln Lys Asn Lys Pro Lys
465                 470                 475                 480
Arg Phe Ala Phe Glu Ile Ala Asn Leu Leu Ala Asp Lys Pro Val Val
                485                 490                 495
Ile Ala Asp Arg Asn Asn His Gln Arg Arg Glu Arg Glu Gln Leu Met
            500                 505                 510
Glu Asp Ile Leu Pro Gly Ile Pro Gly Ala Arg Phe Val Ala Leu His
        515                 520                 525
Tyr Val His Glu Pro Lys Asp Val Leu Leu Pro Ser Ile Arg Glu Val
    530                 535                 540
Thr Arg Lys Arg Val Leu Glu Arg Gly Asp Asn His Gln Thr Ile Arg
545                 550                 555                 560
Ala Gly Thr Lys Asn Ser Asp Glu Ile Val Gly Ile Met Glu Gly Phe
                565                 570                 575
Leu Lys Arg Phe Glu Gly Ile Asn Arg Glu Arg Glu Pro Asp Ser Gly
            580                 585                 590
Phe Asp His Val Ile Asp Leu Asp Val Ala Ala Ser Ser Arg Glu Asn
        595                 600                 605
Leu Glu Thr Val Val Asn Ala Leu His Ser Phe Tyr Pro Asp Leu Leu
    610                 615                 620
Arg Arg Val Pro Thr Ser Gln Glu Leu Asp Asp Ala Val Thr Trp Ala
625                 630                 635                 640
Met Thr Glu Tyr His Val Gln Leu Asp Leu Ser Tyr Ser Tyr Gly Ser
                645                 650                 655
Ser Lys Pro Arg Gln Asn Leu Asn Lys Asn Lys Gly Gln Asn Asp Gly
            660                 665                 670
Ala Ser Thr Ala Ala His Ala Gln Pro Gln Glu Ser Ser Pro Arg Gly
        675                 680                 685
Trp Lys Ala Pro
    690
```

<210> 38959
<211> 229
<212> PRT
<213> A.fumigatus

<400> 38959

```
Ala Gln Ile Cys Cys Phe Cys Thr Ala Thr Met Thr Gln Pro Asn Pro
1               5                   10                  15
Tyr Ile Leu Ala Ala Glu Asn Pro Ser Ala Leu Leu Thr Leu Leu Arg
            20                  25                  30
Ser Asn Pro Ala Ile Ala Ser Cys Gln Asp Glu His Gly Tyr Ser Leu
        35                  40                  45
Leu His Ala Ala Ala Ser Tyr Gly His Ala Asp Leu Leu Arg Ala Leu
    50                  55                  60
Val Gly Glu Phe Asn Val Asp Val Asn Leu Leu Asp Glu Asp Gly Glu
65                  70                  75                  80
Thr Cys Leu Phe Val Thr Glu Asn Ala Asp Ile Ala Lys Cys Leu Val
```

```
                85                  90                  95
Glu Glu Leu Gly Val Asp Tyr Asn Lys Arg Asn Asp Glu Gly Leu Thr
            100                 105                 110
Ala Gln Glu Thr Ile Glu Ser Asp Gly Ala Phe Pro Asp Val Ala Ala
        115                 120                 125
Tyr Leu Ala Lys Val Met Gly Ile Ser Pro Ser Ala Pro Ala Gly Ser
    130                 135                 140
Ser Leu Asp Ala Leu Asn Ala Pro Pro Pro Leu Pro Pro Asn Ile Arg
145                 150                 155                 160
Val Asn Leu Gly Thr Val Ser Glu Glu Glu Ala Ser Ala Gly Thr Asp
                165                 170                 175
Gln Val Asp Pro Glu Phe Lys Arg Arg Ile Asp Glu Leu Ala Ala Arg
            180                 185                 190
Glu Asp Phe His Ser Glu Ala Thr Gln Asn Gln Leu Arg Gln Leu Val
        195                 200                 205
Met Asp Ala Leu Ser Gly Ser Asn Ile Glu Thr Gln Asp Arg Asp Val
    210                 215                 220
Arg Arg Arg Thr Glu
225
```

Application Filed 2005-12-22

<210> 38960
<211> 723
<212> PRT
<213> A.fumigatus

<400> 38960

```
Leu Pro Pro Ser Cys Ser Arg Ser Lys Ser Arg Pro Asn Cys Thr Ala
1               5                   10                  15
Leu Ser Ile Pro Pro Leu Gln Ser Arg Asn Arg Thr Ser Pro Leu Arg
            20                  25                  30
Tyr Gly Tyr Thr Pro Thr Arg Ser Ser Ala Ile Gly Arg Arg Val Ser
        35                  40                  45
Gly Ala Cys Ser Leu Thr Leu Asp Gln Ser Leu Asp Gly Leu Phe Gly
    50                  55                  60
Leu Arg Asn Arg Leu Ile Leu Arg His Glu Ser Gly Gly Asp Arg Val
65                  70                  75                  80
Val Leu Ile Pro Glu Gly Arg Val Thr Trp Leu Lys Asp His Gly His
                85                  90                  95
Ile Ala Val Glu Ile Gly Trp Gln Ala Arg Ser Thr Phe His Leu Tyr
            100                 105                 110
Thr Val Asp Asp Gln Phe Gly Arg Leu Thr Asp Asn Gly Ser Leu His
        115                 120                 125
Ser Arg Ser Leu Leu Cys Tyr Leu His Ala Leu Thr Ser Tyr Cys Leu
    130                 135                 140
Pro Asp Pro Leu Thr Gly Arg Thr Gly Thr Glu Gln Ala Leu Thr Ile
145                 150                 155                 160
Leu Arg Ser Ala Ser Met Arg Ser Phe Asp Arg Leu His Pro Lys Ala
                165                 170                 175
Ser Ile Ile Leu Ala Lys Ile Ala Glu Leu Thr Pro Glu Arg His Tyr
            180                 185                 190
Tyr Pro Ser Asn Glu Arg Val Met Gln Thr Val Arg Trp Asp Lys His
        195                 200                 205
Leu Gly Phe Leu Ala Gln His Asp Ser Phe Tyr Arg Glu Val Thr Ala
    210                 215                 220
Ile Phe Asp His Asp Asn Arg Met Lys Met Phe His Pro Asn Glu Gln
225                 230                 235                 240
```

```
Val Asn Gln Pro Pro Leu Pro His Ile Val Pro Asp Leu Leu Arg Arg
                245                 250                 255
Asn Glu Ile Arg Ser Ser Ser Phe Arg Val Ala Gly Phe Gly Ala Glu
            260                 265                 270
Ala His Thr Val Glu Tyr Asp Arg Pro Tyr Lys Gly Leu Asp Gln Asn
        275                 280                 285
Arg His Ser Ala Gly Phe Tyr Arg Ala Tyr Arg Leu Cys Lys Ile Leu
    290                 295                 300
Tyr Glu Gly Ile Pro Ser Ala Leu Glu Thr Ser His Val Asp Leu Leu
305                 310                 315                 320
Ser Glu Leu Trp Gln Phe Leu Ser Gln Thr His Val Val His Ala Ala
                325                 330                 335
Ser Ser Pro Val Asp Ser Ser Arg Ile Gln Tyr Asp Ala Gly Trp Ile
            340                 345                 350
Leu Glu Pro Met Thr Phe Val Ala Ser His Trp Cys Ser Leu His Gln
        355                 360                 365
Leu Leu Cys Ser Arg Asp Thr Gly Met Ser Lys Phe Gln Val Met Val
    370                 375                 380
Trp Leu Ala Thr Leu Ala Phe Ser Glu Ser Ser Asn Met Val Val Leu
385                 390                 395                 400
Glu Val Leu Ala Ser Leu Tyr Val Ile Pro Glu Met Ala Asn Pro Thr
                405                 410                 415
Pro Ala Ser Arg Gly Gln Phe Gln Leu Trp His Gly Tyr Glu Val Asn
            420                 425                 430
Glu Ala Met Leu Gly Ser Arg Ile His Gln Ser Ala Ala Leu Ser His
        435                 440                 445
Thr Pro Glu Ser Asn Leu His Pro Arg His Asn Glu Asn Met Arg Val
    450                 455                 460
Phe Arg Ser Arg Lys Lys Arg Ile Ala Lys Met Asn Arg Thr Leu Ala
465                 470                 475                 480
Leu Gln Thr Phe Ile Arg Gly Leu Lys Ala Arg Trp Pro Ile Arg Ser
                485                 490                 495
Pro Ala Thr Pro Pro Glu Glu Ala Gly Pro Arg Phe Gly Asp Tyr Tyr
            500                 505                 510
Ala Thr Pro Glu Ala Met Thr Gln Ala Gly Gln Leu Phe Gln Ile Trp
        515                 520                 525
Phe Asp Asn Leu Glu Phe Arg Glu Tyr Leu Ser Asp Leu Ser Ser Leu
    530                 535                 540
Phe Val Ser Gln Thr Val His His Val Gln Met Pro Pro Val Cys Leu
545                 550                 555                 560
Pro Gly Glu Val Lys Gln Thr Thr Thr Arg Arg Gly Tyr Ile Cys Ile
                565                 570                 575
Asp Asp Leu Leu Gly Phe Glu Pro Met Leu Asp Met Glu Arg Pro Arg
            580                 585                 590
Leu Ser Ser Leu Leu Ser Ser His Pro Glu Cys Glu Asp Pro Ala Pro
        595                 600                 605
Arg Leu Met Ala Leu Val Asp Ser Leu Glu Arg Gln Ser Lys Ser Gln
    610                 615                 620
Tyr Glu Arg Arg Tyr Val Glu His Leu Arg Gly Ser Ile Gly Ser Leu
625                 630                 635                 640
Gln Gln Lys Lys Arg Arg Asp Tyr Ile Thr Ile Asn Ser Ser Gln Leu
                645                 650                 655
Glu Ala Ala Leu Leu Asp Tyr Leu His His Cys Glu Thr Tyr Cys Glu
            660                 665                 670
Arg Leu Tyr Asp Ala Met Arg Met Arg Leu Thr His Phe Asp Gly Thr
        675                 680                 685
```

```
Leu Asp Ser Thr Gln Asn Ser Leu Pro Leu Glu Thr Leu Ala Gly Ile
    690                 695                 700
Gly Asn Trp Pro Arg Ile Ser Pro Tyr Leu Leu Val Glu Gln Leu Thr
705                 710                 715                 720
His Gln Arg
```

<210> 38961
<211> 1168
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (8)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38961

```
Tyr Leu Leu Pro Glu Arg Trp Xaa Ala Asn Ile Val Glu Tyr Gly Cys
1               5                   10                  15
Ala Ile Thr Ala Leu Gln Arg Ala Arg Arg Leu Thr Thr Leu Val His
            20                  25                  30
Ser Pro Asp Asp Leu Ile Arg Glu Leu Gln Asn Pro Gly His Thr Asn
        35                  40                  45
Trp Asp Pro Tyr Gln Tyr Pro Glu Ser Leu Leu Leu Glu Ile Glu Asn
    50                  55                  60
Ser Met Leu Ile Arg Glu Val Gln Glu Gln Ile Ala Arg Arg Met Arg
65                  70                  75                  80
Asp Ile Ser Pro Gly Thr Asn Ala Val Met Gln Leu Asn Met Gly Glu
                85                  90                  95
Gly Lys Ser Ser Val Ile Val Pro Met Val Val Ala His Leu Ala Asp
            100                 105                 110
Gly Ser Arg Leu Val Arg Val Val Val Ala Lys Pro Gln Ser Arg Gln
        115                 120                 125
Met Leu Gln Met Leu Val Ser Lys Leu Gly Gly Leu Leu Gly Arg Pro
    130                 135                 140
Val Tyr Leu Leu Pro Val Ser Arg Ser Leu Arg Leu Thr Val Ala Asp
145                 150                 155                 160
Ala Asp Ala Ile Phe His Leu Cys Gln Lys Cys Met Lys Glu Gly Gly
                165                 170                 175
Val Leu Leu Val Gln Pro Glu His Leu Leu Ser Leu Lys Leu Met Cys
            180                 185                 190
Leu Glu Ser Phe Val Thr Gly Arg Gly Ala Val Gly Gly Ser Leu Leu
        195                 200                 205
Gln Thr Leu Glu Phe Phe Thr Gln Tyr Ala Gln Asp Val Val Asp Glu
    210                 215                 220
Ser Asp Glu Asn Phe Ser Ala Arg Phe Glu Leu Ile Tyr Thr Met Gly
225                 230                 235                 240
Thr Gln Arg Gln Leu Glu Leu Thr Pro Gln Arg Trp Met Ile Val Gln
                245                 250                 255
Glu Leu Leu Asn Ile Met Arg Met Ile Ala Pro Ser Val Lys Lys Asp
            260                 265                 270
Tyr Pro Arg Ser Leu Glu Val Glu Glu Cys Ser Val Gly Gly Phe Pro
        275                 280                 285
Arg Ile Arg Leu Leu Gln Lys Asp Ala Glu Leu Glu Leu Leu Gln Arg
    290                 295                 300
```

```
Val Ala Thr His Ile Cys Glu His Gly Ile Asp Ser Leu Pro Ile Ser
305                 310                 315                 320
Arg Gln Ser Lys Thr Ala Arg Gln Ala Val Arg Ala Tyr Ile Leu Lys
                325                 330                 335
Gln Glu Leu Ser Ser Glu Glu Ile Ser Ser Val Glu Asp Thr Gly Pro
            340                 345                 350
Ala Gly Phe Trp Thr Glu Thr Thr Lys Asn Pro Leu Leu Leu Leu Arg
        355                 360                 365
Gly Leu Phe Ala Gly Gly Ile Leu Ser Phe Cys Phe Gly Gln Lys Arg
    370                 375                 380
Trp Arg Val Asn Tyr Gly Pro Asp His Ser Arg Asn Pro Pro Thr Arg
385                 390                 395                 400
Leu Ser Val Pro Tyr Arg Ala Lys Asp Cys Pro Ala Pro Arg Ser Glu
                405                 410                 415
Phe Ser His Pro Asp Val Val Ile Leu Leu Thr Cys Leu Asn Tyr Tyr
            420                 425                 430
Tyr Ala Gly Leu Ser Asp Glu Glu Leu Phe Leu Ala Leu Asp His Leu
        435                 440                 445
Val Lys Ser Asp Gln Ala Glu Ile Glu Tyr Gln Ala Trp Val Val Asp
    450                 455                 460
Cys Pro Ser Leu Pro Asp Thr Tyr Arg Gln Leu Gly Gly Val Asn Leu
465                 470                 475                 480
Glu Asp Arg Gln His Cys Val Lys Gln Ile Phe Pro Trp Phe Arg Ser
                485                 490                 495
Ala Lys Gly Ala Ile Asp Tyr Phe Leu Ala His Val Val Phe Pro Arg
            500                 505                 510
Glu Leu Arg Glu Phe Pro Asp Lys Leu Ser Ala Ser Gly Trp Asp Ile
        515                 520                 525
Gly Glu Leu Arg Thr Gln Pro Thr Val Gly Phe Ser Gly Thr Asn Asp
    530                 535                 540
Ser Arg Gln Thr Leu Pro Leu Ser Val Glu Gln Leu Asp Leu Pro Glu
545                 550                 555                 560
Gln Asn His Thr Asn Ala Leu Val Leu Asp Tyr Leu Leu Arg Pro Glu
                565                 570                 575
Asn Ser Val Ala Leu Ser Pro Ala Arg Pro Gln Ala Ser Thr Leu Asp
            580                 585                 590
Ala Lys Gly Leu Leu Asp Met Val Met Gly Leu Glu Pro Pro Val Gln
        595                 600                 605
Val Ile Leu Asp Val Gly Ala Gln Ile Leu Glu Leu Ser Ser Leu Glu
    610                 615                 620
Val Ala Glu Tyr Trp Leu Asn Leu Ile Pro Asp Asn Thr Gln Thr Gln
625                 630                 635                 640
Ala Val Ile Phe Val Asn Glu Asn Asp Glu Ile Cys Val Leu Asp Arg
                645                 650                 655
Asn Arg Arg Val Glu Leu Leu Gln Val Ser Pro Phe Ala Lys Gln Leu
            660                 665                 670
Gly Ala Cys Leu Val Phe Leu Asp Glu Ala His Thr Arg Gly Ile Asp
        675                 680                 685
Leu Lys Leu Pro Ala Thr Tyr Arg Ala Ala Val Thr Leu Gly Ala Gly
    690                 695                 700
Ile Thr Lys Asp Lys Leu Val Gln Gly Lys Thr Ala Gly Asn Arg Gly
705                 710                 715                 720
Met Asn Arg Asn Ala Lys Leu Thr Ala His Ser Ala Cys Met Arg Met
                725                 730                 735
Arg Lys Leu Gly Lys Gly Gln Ser Val Val Phe Cys Ile Pro Asp Glu
            740                 745                 750
```

```
Ile Arg Phe Lys Ile Leu Ala Leu Pro His Lys Cys Ser Arg Ser Asp
        755                 760                 765
Ile Asp Val Ala Asp Val Leu Cys Trp Ala Val Ser Glu Thr Trp Val
    770                 775                 780
Asp Ile Arg Arg Ser Met Pro Leu Trp Ala Ala Gln Gly Lys Arg Tyr
785                 790                 795                 800
Ile Gln Gln Cys Arg Leu Trp Glu Ala Ala Ser Gln Gly Gly Lys Ala
                805                 810                 815
Gln Leu Ser Leu Ser Arg Ala Ser Asp Phe Leu Glu Pro Glu Ala Gln
            820                 825                 830
Ser Leu Asp Asp Arg Tyr Arg Pro Arg Arg Gly Asp Ala Pro Phe Leu
        835                 840                 845
His His Gln Pro Asp Glu Ser Thr Pro Met Cys Leu Ile Ser Glu Arg
    850                 855                 860
Cys Arg Glu Phe Asp Glu Leu Lys Phe Ala Ser Ala Gln Leu Gln Glu
865                 870                 875                 880
Glu Gln Glu Arg Glu Leu Ala Pro Glu Ile Glu Gln Glu Arg Gln Ile
                885                 890                 895
Glu Arg Pro Pro Pro Ala Lys Pro Asn Gln His Cys Leu His Ala Asp
            900                 905                 910
Leu Leu Thr Phe Val Ser Thr Gly Ile Leu Lys Glu His Ser Ser Ala
        915                 920                 925
Phe Arg Pro Ala Phe Glu Ala Leu Lys Asn Thr Ser Ala Ala Arg Tyr
    930                 935                 940
Leu Gly Val Ser Gln Phe Pro Ser Gly Leu Arg Val Thr Thr Asp Phe
945                 950                 955                 960
Ala Thr Thr Ile Gln Leu Arg Glu Gly Ser Ser Cys Leu Ser Asp Thr
                965                 970                 975
Tyr Gln Arg Pro Val Gln Trp Val Leu Thr His Ser Ile Tyr Asp Ser
            980                 985                 990
Thr Ser Gly Lys Arg Asn Ala Ser Gln Val Ile Ile Ile Ser Pro Tyr
        995                 1000                1005
Glu Ala Met His Leu Leu Pro Glu Val Arg Arg Ser Thr Gly Ala Thr
    1010                1015                1020
Ile His Leu Tyr Ala Pro Arg Gln Asn Leu Ser Phe Val Ser Leu Asp
1025                1030                1035                1040
Arg Leu Asp Leu Tyr Asn Ile Pro Ser Arg Pro Asp Ser Ile Asp Ile
                1045                1050                1055
Pro Asp Asp Leu Lys Ile Gln Leu Asn Leu Phe Ala Gly Gln Leu Tyr
            1060                1065                1070
Ile Ala Ser Tyr Pro Glu Tyr Leu Arg Leu Cys Asp Thr Leu Gly Val
        1075                1080                1085
Ala Ser Ala Ala Thr Pro Asp Asn Phe Thr Val Ala Ala Asp Gly Phe
    1090                1095                1100
Ile Leu Gln Gly Asn Val Thr Ser Lys Ser Thr Phe Ser Gln Ser Pro
1105                1110                1115                1120
Leu Lys Phe Leu Gln Val Leu Leu Ser Gln Ile Arg Lys Asp Gly Gln
                1125                1130                1135
Asp Ile Ser Lys Thr His Ile Gly Arg Leu Leu Asp Gly Arg Leu Leu
            1140                1145                1150
Glu Leu Arg Asp Phe Asp Pro Ala Ile Glu Glu Phe Thr Pro Thr Ser
        1155                1160                1165
```

<210> 38962
<211> 701
<212> PRT

<213> A.fumigatus

<220>
<221> UNSURE
<222> (650)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38962

```
Arg Met Glu Arg Thr Phe His Pro Arg Ala Glu Asp Met Asp Cys Thr
1               5                  10                  15
Tyr Glu Glu Val Ile Val Asp Arg Arg Phe Asn Phe Arg Glu Thr Arg
            20                  25                  30
His Ser Gly Ser Cys Gln Arg Cys Ala Tyr Gln Arg Gln Ala Asp Ser
        35                  40                  45
Met Lys Val Ser Val His Glu Trp Pro Leu Pro Ser Asn Arg Leu Gln
    50                  55                  60
Ala Lys Ser Thr Val Phe Glu Leu Asn Val Pro Arg Pro Phe Gly Cys
65                  70                  75                  80
Trp Arg Asp Ile Thr Met Phe Phe Leu Val Asp Val Leu His Ile Gln
                85                  90                  95
Tyr Ile Ser Arg Asp Glu Pro Arg Ala Glu His Thr Leu Gln Asn Tyr
            100                 105                 110
Gly Gly Leu Ser Pro Phe Tyr Thr Ala Val Gln Gly Val Gly Arg Val
        115                 120                 125
Gly Leu Leu Ser Gln Asn Lys Pro His Glu Arg Thr His Arg Leu Lys
    130                 135                 140
Lys Lys Ile Ile Asn Val Thr Glu Asp Asp Val Cys Val Asn Asn Gly
145                 150                 155                 160
Leu Leu Leu Arg Tyr Phe Asp Phe Ser Met Arg Thr Phe Val Gly Gly
                165                 170                 175
Phe Lys Met Ser Asp Glu Ile Ala Asn Leu Cys Met Tyr Lys Leu Pro
            180                 185                 190
Lys Arg Ser Thr Asp Leu Gln Gln Phe Leu Phe Arg Pro Leu Gly Asn
        195                 200                 205
Pro Asp Gly Pro Ser Pro Asn Thr Val Ile Ala Ser Gln Asp Cys Cys
    210                 215                 220
Pro Val Gly Met Ser Leu Glu Glu Tyr Arg Ser Leu Cys Thr Met Pro
225                 230                 235                 240
Leu Gly Val Glu Ile Gln Trp Gln Asn Ile Leu Arg Gln Leu Ala Met
                245                 250                 255
Pro Ser Ile Asp Leu Lys Lys Ala Glu Thr Cys Ile Phe Ile Leu Gln
            260                 265                 270
Ile Ile Asn Gln Ala Gly Pro Ser Thr Ala Ser Arg Val Thr Arg Thr
        275                 280                 285
Ala His Asp Ile Leu Asn Asp Thr Ala Phe Thr Thr Ala Leu Leu Gly
    290                 295                 300
Arg Val Tyr Asp Ile Ala Ala Arg Leu Glu Glu Asn Trp Glu Met Ala
305                 310                 315                 320
Gln Gly Leu Ser Ala Leu Ser Ala Leu Val Leu Arg Ile Leu Ala Leu
                325                 330                 335
Ser Pro Ser Ala Asp Val Arg Glu Ile Cys Leu Thr Thr Leu Gln His
            340                 345                 350
Leu Arg Lys Val Ala Phe Ala Trp Val Lys Ile Val Thr Glu Lys Ala
        355                 360                 365
Ser Ser Thr Thr Asp Asp Arg Arg Arg Ser Asp Leu Leu Met Arg Ser
    370                 375                 380
```

```
Gly Gln Leu Ala Leu Ile Cys Ala Thr Thr Phe Asp Ala Glu Asp Ile
385                 390                 395                 400
Val Leu Val Arg Met Leu Glu Asn Pro Ser Asp Thr Ala Val Leu Leu
                405                 410                 415
Gln Cys Cys Met Leu Ile Asn Asp Thr Arg Arg Phe Leu Cys Glu Gly
            420                 425                 430
Ser Gly Ser Ser Pro Leu Ile Pro Ile Leu Phe Arg Arg Trp Gln Val
        435                 440                 445
Leu Cys Tyr Arg Cys Leu Pro Val Leu Arg Gln Asn Ile Leu Gln Arg
    450                 455                 460
Ala Asp Ser Ser Leu Asp Ile Ala Ile Gly Gln Ile Trp Val Thr Tyr
465                 470                 475                 480
Arg Ala Gly Ser Ser Trp Lys Ala Ser Pro Glu Ala Pro Ile Cys Trp
                485                 490                 495
Leu Val Thr Ser Leu Pro Ser Gln Ser Glu His Gly Val Asp Leu Pro
            500                 505                 510
Val His Tyr Asn Leu Leu Thr Gly Asp Leu Leu Val Asn Gly Leu Pro
        515                 520                 525
Leu Ala Arg Leu Pro Ser Glu Tyr Glu Arg His Asp Thr Tyr Arg Thr
    530                 535                 540
Leu Phe Gly Gln Ser Ser Leu Glu Val Met Pro Ser Val Ile Pro Gly
545                 550                 555                 560
Met Asp Phe Thr Cys Arg Lys Lys Tyr Met Gly His Thr Val Ser Phe
                565                 570                 575
Ser Arg Arg Lys Val Thr Gly Cys Glu Asp Phe Asp Leu Cys Ile Gln
            580                 585                 590
Ala Thr Glu Ala Gly Cys Thr Trp Glu Phe Ile Pro Pro Arg Leu Leu
        595                 600                 605
Met Gly Ser Phe Pro Asp Ala Phe Leu Thr Gly Cys Val His Trp Tyr
    610                 615                 620
Asn Val His Asn Asp Tyr Val Glu Phe Arg Pro Ile Asp Lys Pro Trp
625                 630                 635                 640
Ile Ser Ser Thr Phe Asn Trp Arg Leu Xaa Lys Thr Ser Ala His Asp
                645                 650                 655
Leu Trp Arg Leu Ala Gln Asp Thr Leu Phe Leu Val Ser Val Lys Ser
            660                 665                 670
Arg Thr Ala Glu Val Ile Ala Ala Ile Leu Gln Pro Ile Glu Lys Pro
        675                 680                 685
Ser Gln Leu His Cys Thr Phe Asp Ser Thr Thr Ser Val
    690                 695                 700
```

<210> 38963
<211> 70
<212> PRT
<213> A.fumigatus

<400> 38963

```
Ser Asn Ser Cys Ser Ile Arg Arg Gly Gln Leu Gln Val Asn Pro Ser
1               5                   10                  15
Arg Val Arg Leu Ile Lys Glu Asp Gln Thr Cys Thr Lys Leu Leu Cys
            20                  25                  30
Lys Gly Arg Asp Leu Gln Gln Leu Tyr Pro Ser Val Pro Val Lys Asn
        35                  40                  45
Thr Tyr Leu Ile Ile Leu Ile Asp Glu Asn His Arg Leu Ser Leu Ser
    50                  55                  60
Val Val Trp Tyr Gln Ile
```

65 70

<210> 38964
<211> 65
<212> PRT
<213> A.fumigatus

<400> 38964
Leu Val Met Val Arg Met Val Val Val Gly Tyr Ser Tyr Thr Ser Thr
1 5 10 15
Pro Leu Leu Val Ile Thr Leu Tyr Ser Lys Gln Ser Asn Glu Pro Phe
20 25 30
Leu Glu Asp Gln Pro Ser Tyr Thr Ser Val Ser Glu Val Phe Pro Ala
35 40 45
Thr Cys Leu Tyr Arg Ala Tyr Lys Leu Glu Ser Tyr Asn Ile Leu Ser
50 55 60
Tyr
65

<210> 38965
<211> 373
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (264),(274),(339)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38965
Ala Pro Arg Ile Arg Ala Met Ser Thr Ala Ala Ser Thr Met Asn Gly
1 5 10 15
Thr Val Glu Lys Val Leu Tyr Leu Ser Ser Leu Ala Val Gly Ser Trp
20 25 30
Val Ala Lys Arg Leu Leu Asp Glu Tyr Ala Asp Leu Pro Leu His Leu
35 40 45
Leu Cys Ser Ser Ile Glu Val His Ser Tyr Asp Glu Ala Tyr Asn Tyr
50 55 60
Leu Leu Tyr Trp Leu Met Lys Gln Thr Phe Asp Ala Asn Lys Asn Arg
65 70 75 80
Leu Leu Ala Leu Thr Ser Leu Thr Ser Gly Gln Gly Gly Phe Phe Gly
85 90 95
Glu Asp Thr Asn Lys Asp Asn Asp Ala Ala Glu Glu Asp Glu Leu Glu
100 105 110
Val His Ala Asp Ala Glu Tyr Lys Ala Ser Leu Ala Asn Thr Arg Pro
115 120 125
Leu Leu Trp Thr Pro Ser Ala Gly Thr His Trp Phe Arg Tyr Arg Gly
130 135 140
Arg Phe Leu Ala Leu Thr Arg Glu Val Glu Glu Asn Arg Gln Thr Val
145 150 155 160
Tyr Thr Arg Thr Glu Lys Leu Arg Val Ser Cys Leu Gly Trp Asp Pro
165 170 175
Ala Ile Leu Lys Glu Leu Met Gln Asp Ala Arg Val Ala Phe Ser Gln
180 185 190
Lys Glu Lys Gly Arg Thr Val Ile Tyr Arg Ala Met Lys Ser Ile Tyr
195 200 205

```
Asp Gly Glu Leu Ala Trp Lys Arg Leu Thr Ser Arg Pro Ala Arg Pro
    210                 215                 220
Leu Ser Thr Val Ile Leu Asp Glu Ala Val Lys His Ala Phe Leu Glu
225                 230                 235                 240
Asp Ile Gln His Tyr Leu His Pro Ser Thr Met Arg Trp Tyr Ser Asp
                245                 250                 255
Arg Gly Ile Pro Tyr Arg Arg Xaa Tyr Leu Phe Tyr Gly Pro Thr Gly
            260                 265                 270
Thr Xaa Lys Ser Ser Leu Ala Phe Ala Pro Thr Arg Val Ser Arg Leu
        275                 280                 285
Glu Cys Val His Gly Gln Pro Glu Leu Ala Thr Thr Tyr Gly Gly Cys
    290                 295                 300
Leu Asp Ala Val Val Ser Asp Ala Ser Gly Asp Gly Val Trp Cys Cys
305                 310                 315                 320
Trp Glu Asp Ile Asp Ala Lys Glu Val Thr Gly Arg Ser Gln Pro Asn
                325                 330                 335
Cys Thr Xaa Pro Lys Gly Glu Glu Arg Asp Leu Ala Leu Gly Leu Val
            340                 345                 350
Glu Tyr His Arg Arg Arg Arg Gly Ser Gly Gly Pro Gly Ala Asp Tyr
        355                 360                 365
Asp Asp Glu Ser Pro
    370
```

<210> 38966
<211> 198
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (9)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38966

```
Leu Val Val Arg Asn Pro Thr Ala Xaa Arg Arg Lys Gly Lys Asn Gly
1               5                   10                  15
Ile Ser Leu Ser Ala Leu Leu Asn Ile Ile Asp Gly Val Ala Ala Gln
            20                  25                  30
Glu Ala Arg Val Leu Ile Met Thr Thr Asn His His Glu His Leu Asp
        35                  40                  45
Pro Ala Leu Ile Arg Pro Gly Arg Val Asp Tyr Lys Leu Glu Phe Gln
    50                  55                  60
Leu Ala Ser Arg Asp Leu Cys Ala Thr Met Phe Arg Asn Ile Phe Gln
65                  70                  75                  80
Val Tyr Thr Pro Ser Glu Val Gly Ser Ala Gln Val Ala Ala Ser Ser
                85                  90                  95
Thr Gln Gly Gly Leu Ser Glu Lys Asp Gly Ser Thr Ala Ile Asp Leu
            100                 105                 110
Gln Asp Val Ala Lys Val Phe Ala Gly Lys Ile Pro Pro Gly Thr Phe
        115                 120                 125
Ser Pro Ala Glu Val Gln Gly Tyr Leu Leu Arg Tyr Arg Asp Ser Pro
    130                 135                 140
Glu Asp Ala Val Ala Gly Val Glu Ser Trp Val Glu Ala Ser Gln Ala
145                 150                 155                 160
Glu Lys Ala Ala Asn Asp Gln Val Leu Glu Asp Lys Ala Ala Gln Ser
                165                 170                 175
```

```
Ser Glu Ser Glu Ser Glu Asp Asp Ser Glu Asp Asp Asn Glu Glu Gln
            180                 185                 190
Pro Asp Glu Asp Ala Ser
        195
```

<210> 38967
<211> 262
<212> PRT
<213> A.fumigatus

<400> 38967

```
Leu Gln Ser Thr Pro Arg Ala Leu His Leu Arg Lys Pro Ala Phe Ser
1               5                   10                  15
His Thr Phe Asn Leu Ser Arg Leu Arg Leu Leu Pro Thr Met Pro Thr
            20                  25                  30
Leu Arg Cys Gly Tyr Ala Phe Asn His Glu Arg Val Gln Ser Cys Ile
        35                  40                  45
His Ile Tyr Ser Ala Met Gly Gln Tyr Leu Gln Ala Val Glu Leu Ala
    50                  55                  60
Leu Gln His Glu Asp Ile Glu Leu Ala Ala Ile Val Ala Asp Arg Pro
65                  70                  75                  80
Glu Gly Asn Asp Lys Leu Arg Lys Lys Leu Trp Leu Leu Val Ala Glu
                85                  90                  95
Lys Lys Ile Arg Gln Pro Gly Thr Gly Ile Lys Asp Ala Ile Glu Phe
            100                 105                 110
Leu Arg Arg Cys Glu Leu Leu Arg Ile Glu Asp Leu Ile Pro Phe Phe
        115                 120                 125
Pro Asp Phe Val Val Ile Asp Asp Phe Lys Asp Glu Ile Cys Ser Ala
    130                 135                 140
Leu Glu Asp Tyr Ser Arg His Ile Asp Ala Leu Arg Gln Glu Met Asp
145                 150                 155                 160
Asn Ser Ala Gln Thr Ala Arg Gln Ile Arg Ser Glu Ile Ala Ala Leu
                165                 170                 175
Asp Met Arg Tyr Ala Ile Val Glu Pro Gly Glu Lys Cys Trp Thr Cys
            180                 185                 190
Ser Leu Pro Leu Leu Ser Arg Gln Phe Phe Val Phe Pro Cys Gln His
        195                 200                 205
Ala Phe His Ser Asp Cys Leu Gly Lys Glu Val Leu Glu Gly Ala Gly
    210                 215                 220
Gly Lys Lys Lys Tyr Ile Arg Asp Leu Gln Ala Gln Leu Asn Lys Ala
225                 230                 235                 240
Asp Val Ser Ala Ser Arg Arg Glu Glu Ile Val Lys Glu Leu Asp Gly
                245                 250                 255
Leu Val Ala Glu Ala Trp
            260
```

<210> 38968
<211> 670
<212> PRT
<213> A.fumigatus

<400> 38968

```
Ala His Ala Leu Arg Pro Ala Ile Leu Val Ala Met Leu Arg Cys Phe
1               5                   10                  15
Glu Leu Asp Ile Asp Leu Pro Lys Lys Ser Ser Glu Val Gly Val Ile
            20                  25                  30
```

```
Arg Arg Met Phe Leu Asp Pro Thr Ala Ser His Leu Ile Ile Thr Thr
        35                  40                  45
Thr Leu Gly Glu Asn Tyr Tyr Leu His Thr Gln Ser Arg His Pro Lys
    50                  55                  60
Ser Leu Ser Arg Leu Lys Gly Val Ser Ile Glu Ser Val Ala Trp Ser
65                  70                  75                  80
Pro Ser Leu Pro Thr Ala Ser Thr Arg Glu Ile Leu Leu Gly Ala Thr
                85                  90                  95
Asp Gly Gln Ile Trp Glu Thr Tyr Ile Glu Pro Ser Thr Glu Phe Phe
            100                 105                 110
Arg Arg Glu Glu Lys Tyr Ala His Ser Val Tyr Lys Ala Leu Glu Gly
        115                 120                 125
Ser Pro Val Thr Gly Ile Trp Thr Glu Leu Val Pro Thr Thr Pro Glu
    130                 135                 140
Gln Arg Arg Val Leu Ile Ala Thr His Asp Lys Leu Ile Cys Phe Gln
145                 150                 155                 160
Gly Arg Ala Gly Arg Gln Gly Ser Gln Gly Ile Tyr Ala Glu Leu Phe
                165                 170                 175
Gln Arg Glu Ala Pro Val Leu Tyr Glu Ile Gln Lys Pro Ser Gly Ala
            180                 185                 190
Ala Pro Ser Thr Leu Val Ile Ser Ala Thr Ala Val Asp Gly His Asn
        195                 200                 205
Val Asp Ser Tyr Ala Glu Lys Glu Phe Ala Trp Leu Ser Ser Gln Gly
    210                 215                 220
Ile Tyr His Gly Gln Leu Pro Phe Ala Ser Gly Lys Glu Lys Gly Pro
225                 230                 235                 240
Phe Glu Gly Ala Arg Met Leu Pro Arg Ser Met Phe Pro Pro Thr Glu
                245                 250                 255
Ser Ala Arg Gly Gly Lys Lys Leu Ile Gln Asp Pro Ile Thr Ala Met
            260                 265                 270
Thr Leu Ser Gln Trp His Ile Leu Ala Leu Val Glu Gly Lys Ile Val
        275                 280                 285
Ala Val Asn Arg Met Ser Asp Glu Ile Ile Tyr Glu Gln Ala Val Leu
    290                 295                 300
Glu Pro Gly Gln Ser Thr Leu Gly Leu Leu Thr Asp Ser Met Gln His
305                 310                 315                 320
Thr Tyr Trp Leu Phe Thr Ser Gln Glu Ile Phe Glu Ile Val Ala Glu
                325                 330                 335
Asp Glu Asp Arg Asp Val Trp Lys Val Phe Leu Gln Lys Gln Met Phe
            340                 345                 350
Asp Gln Ala Leu Glu Tyr Ala Arg Gly Ser Ala Gln Lys Asp Ala Val
        355                 360                 365
Ala Thr Ala Ser Gly Asp Phe Leu Ala Ser Lys Gly Arg Tyr Leu Glu
    370                 375                 380
Ala Ala Lys Val Trp Gly Lys Ser Ser Lys Gly Phe Glu Glu Val Cys
385                 390                 395                 400
Leu Thr Leu Ile Asn Arg Asn Glu His Asp Ala Leu Arg Lys Tyr Leu
                405                 410                 415
Leu Thr Gln Leu Ser Thr Tyr Lys Lys Ser Ser Thr Met Gln Arg Ile
            420                 425                 430
Leu Val Ala Ser Trp Leu Val Glu Val Phe Met Ser Lys Leu Asn Ala
        435                 440                 445
Leu Asp Asp Asn Ile Ala Thr Lys Ala Glu Leu Ala Glu Gly Ala Ser
    450                 455                 460
Thr Glu Asp Ile Lys Asp Glu Leu Ser Asn Val Arg Ala Glu Phe Gln
465                 470                 475                 480
```

```
Glu Phe Val Asn Lys Tyr Lys Thr Asp Leu Asp Lys Lys Thr Ala Tyr
                485                 490                 495
Asp Ile Ile Ser Ser His Gly Arg Glu Glu Glu Leu Leu Phe Phe Ala
            500                 505                 510
Thr Ala Thr Asn Asp Tyr Asn Tyr Val Leu Ser Tyr Trp Ile Gln Arg
        515                 520                 525
Glu Lys Trp Ser Glu Ala Leu Asn Val Leu Gln Lys Gln Thr Asp Pro
    530                 535                 540
Asp Val Phe Tyr Lys Tyr Ser Ser Val Leu Met Thr His Ala Ala Thr
545                 550                 555                 560
Gly Leu Val Asp Ile Leu Met Arg Gln Thr Asn Leu Glu Pro Glu Arg
                565                 570                 575
Leu Ile Pro Ala Leu Leu Asn Tyr Asn Lys Thr Val Asn Ile Pro Leu
            580                 585                 590
Ser Gln Asn Gln Ala Val Arg Tyr Leu Asn Phe Ile Val Val Asn His
        595                 600                 605
Pro Lys Pro Ser Ala Ala Val His Asn Thr Leu Ile Ala Ile His Ala
    610                 615                 620
Ser Ser Pro Ser Pro Ser Glu Ala Gly Leu Leu Thr Tyr Leu Gln Ser
625                 630                 635                 640
Gln Pro Ser Ser Pro Pro Pro Tyr Asp Ala Asp Phe Ala Leu Arg Leu
                645                 650                 655
Cys Ile Gln Pro Arg Thr Cys Ser Ile Met His Pro Tyr Ile
            660                 665                 670
```

<210> 38969
<211> 64
<212> PRT
<213> A.fumigatus

<400> 38969

```
Tyr Thr Val Asn Arg Phe Phe Gly Gln Val Leu Leu Phe Tyr Cys Ile
1               5                   10                  15
Ser His His Pro Asp Pro Arg Leu Arg Lys Thr Leu Pro Val Gly Trp
            20                  25                  30
Glu Arg Trp Thr Asp Glu Ile Leu Arg Phe Leu Glu Asp Cys Ala Pro
        35                  40                  45
Phe Ser Pro Ala Val Ser Lys Asp Leu Glu Leu Leu Gln Leu Leu Arg
    50                  55                  60
```

<210> 38970
<211> 277
<212> PRT
<213> A.fumigatus

<400> 38970

```
Val Phe Asp Leu Pro Ser Gly His Ala Ile Leu Ser Ala Thr Asn Asn
1               5                   10                  15
Arg Ser His Asp Val Asn Phe Asp Glu Trp Glu Gly Asp Met Lys Ser
            20                  25                  30
Arg Val Tyr Trp Asn Thr Leu Met Asn Glu Thr Ile Leu Val Gln Glu
        35                  40                  45
Leu His Leu Pro Pro Ser Gly Leu Ser Arg Leu Glu Glu Leu Val Pro
    50                  55                  60
Ile Pro Lys Phe Ile Gly Phe Glu Ser Val Asp Phe Val Pro Ala Arg
65                  70                  75                  80
```

```
Phe Ser Ser Ser Ser Asp Glu Ile Asp Glu Ser Phe Phe Gln Tyr His
                85                  90                  95
Phe Leu Ala Gln Val Ala His Arg Ile Ile Leu Thr Arg Ile Arg Arg
            100                 105                 110
Ser Leu Tyr Phe Tyr Cys Glu Ser Ser Pro Leu Ala Pro Phe Leu Leu
        115                 120                 125
Arg Cys Leu Arg Pro Leu Thr Leu Ala Ser Ala Asp Ser Gly Thr Phe
    130                 135                 140
Pro Leu Pro Ala Val Asn Ala Glu Leu Arg His Gln Leu Glu Gln Trp
145                 150                 155                 160
Arg Ile Asn Leu Pro Pro Ala Leu Gln Phe Ser Asp Ser Gln Pro Ser
                165                 170                 175
Thr Pro Met Asp Pro Asn Pro Ser Pro Ala Pro Val Ser Pro Leu Pro
            180                 185                 190
Ile Asp Pro Asn Arg Pro Leu Ser Pro Ala Ile Ala Val Thr Glu Ala
        195                 200                 205
Met Leu Arg Gly Arg Tyr Met Ile Ala Asn Phe His Ile Gly Arg Pro
    210                 215                 220
Tyr Leu Tyr Lys Ala Leu Arg Ile Pro Gln Arg Val Thr Asp His Asp
225                 230                 235                 240
Leu Glu Gln Met Arg Asn Gly Leu Arg His Ala Met Asp Trp Pro Pro
                245                 250                 255
Val Gly Gly Ile Phe Arg Lys Met Lys Ser Cys Ile Pro Ile Lys Phe
            260                 265                 270
Ala Phe Cys Ser Gln
        275
```

<210> 38971
<211> 89
<212> PRT
<213> A.fumigatus

<400> 38971

```
Pro Leu Ser Leu Leu Leu Lys Ala Cys Pro Leu Val Asp Glu Leu Ala
1               5                   10                  15
Leu Tyr Asp Val Val Asn Thr Pro Gly Val Ala Ala Asp Leu Ser His
            20                  25                  30
Ile Ser Ser Val Ala Val Cys Asp Ile Ile Leu Asp Pro Ser Thr Gln
        35                  40                  45
Val Ile Asn Pro Arg Ser Asp Ser His Phe Gln Lys Val Ser Gly Tyr
    50                  55                  60
Leu Pro Lys Asp Asp Gly Leu Lys Asn Ala Leu Thr Gly Thr Asp Ile
65                  70                  75                  80
Val Val Ile Pro Ala Gly Ile Pro Arg
                85
```

<210> 38972
<211> 96
<212> PRT
<213> A.fumigatus

<400> 38972

```
Gly Thr Ile Leu Lys Thr Asn Tyr Asp Phe Asn Gly Thr Arg Asn Ala
1               5                   10                  15
Asp Leu Ile Leu Cys Ile Val Cys Trp Leu Cys Gln His Gln Gly Thr
            20                  25                  30
```

```
Ser Tyr Ile Ile Asn Leu Gln Thr Phe Asp Asn Lys Glu Glu Leu Tyr
        35                  40                  45
Leu Ser Tyr Cys Glu Gln Ala Val Gly Val Gln Ala Thr Glu Asn Gly
    50                  55                  60
Gly Val Val Val Ile Thr Lys Lys Pro Gly Asn Pro Gln Gln Pro Ala
65                  70                  75                  80
Lys Asn Leu Val Ser Val Ser Trp Gly Pro Asn Ala Ala Thr Arg Lys
                85                  90                  95
```

<210> 38973
<211> 79
<212> PRT
<213> A.fumigatus

<400> 38973

```
Phe Ala Gly Trp His Cys Leu Arg Leu Val Leu Leu Ile Ser Gly Ile
1               5                   10                  15
Val Leu Trp His Arg Ile Tyr Lys Ala Val Ala Ser Lys Thr Ala Lys
            20                  25                  30
Asn Gly Tyr Arg Ala Asp Leu Arg Glu Asp Ala Val Ala Arg Val Ser
        35                  40                  45
Ala Ile Arg Arg Ser Gln Lys Pro Lys Lys Asp Ala Ala Pro Lys Lys
    50                  55                  60
Leu Arg Gly Ala Gln Ala Arg Lys Ala Ala Glu Gln Lys Ser Glu
65                  70                  75
```

<210> 38974
<211> 187
<212> PRT
<213> A.fumigatus

<400> 38974

```
Leu Lys Ile Phe Pro Thr Gly Lys Pro Gly Met Thr Arg Asp Asp Leu
1               5                   10                  15
Phe Lys Val Asn Ala Gly Ile Val Arg Asp Leu Val Thr Gly Ile Ala
            20                  25                  30
Gln Tyr Cys Pro Lys Ala Phe Val Leu Ile Ile Ser Asn Pro Val Asn
        35                  40                  45
Ser Thr Val Pro Ile Ala Ala Glu Val Leu Lys Lys Gln Gly Val Phe
    50                  55                  60
Asp Pro Lys Arg Phe Phe Gly Val Thr Thr Leu Asp Ile Val Cys Ala
65                  70                  75                  80
Glu Thr Phe Thr Gln Glu Tyr Ser Gly Gln Lys Asp Pro Ser Lys Val
                85                  90                  95
Gln Ile Pro Val Val Gly Gly His Tyr Gly Glu Thr Ile Val Pro Leu
            100                 105                 110
Phe Ser Lys Asp Ser Pro Ala Leu Asp Ile Pro Ala Asp Lys Tyr Asp
        115                 120                 125
Ala Leu Val Asn Arg Glu Cys Leu Leu Tyr Ile Tyr Ser Tyr Leu Gln
    130                 135                 140
Leu Ala Thr Asn Ser Ser Val Gly Val Gln Phe Gly Gly Asp Glu Val
145                 150                 155                 160
Val Lys Ala Lys Asp Gly Ala Gly Ser Ala Thr Leu Ser Met Ala Tyr
                165                 170                 175
Ala Gly Phe Arg Ser Ala Thr Phe Ser Gly Ala
            180                 185
```

<210> 38975
<211> 107
<212> PRT
<213> A.fumigatus

<400> 38975
Val Ser Ser Leu Val Glu Met Arg Ser Ser Arg Leu Lys Met Ala Pro
1 5 10 15
Ala Pro Pro Leu Cys Pro Trp Leu Met Leu Ala Ser Gly Leu Pro Pro
20 25 30
Phe Pro Glu Leu Lys Ser Ala Tyr Leu Leu Ile Gln Gly Arg Phe Ala
35 40 45
Glu Lys Val Ile Arg Ala Ser Gln Gly Gln Ser Gly Ile Val Glu Pro
50 55 60
Thr Tyr Ile Tyr Leu Arg Gly Val Thr Gly Gly Glu Glu Ile Ala Asn
65 70 75 80
Glu Thr Gly Val Glu Phe Phe Ser Thr Leu Val Glu Leu Gly Val Ser
85 90 95
Val Ser Thr Ser Ser Ala Gln Thr Ile Leu Ile
100 105

<210> 38976
<211> 148
<212> PRT
<213> A.fumigatus

<400> 38976
Leu Gln Ile Thr Val Asp Ile Glu Gln Thr Leu Thr Val His Lys Ser
1 5 10 15
Val Ile Leu Val Cys Arg Asn Ile Gln Gly Arg Gly Ile Leu Ala Glu
20 25 30
Glu Gly Asn Asp Gly Leu Ala Ile Val Pro Ala Asn Asn Arg Asn Leu
35 40 45
Asp Leu Gly Trp Ile Leu Leu Ser Gly Ile Phe Leu Ser Glu Gly Leu
50 55 60
Cys Thr Asp Asn Ile Gln Gly Gly Asp Thr Lys Glu Ala Leu Gly Val
65 70 75 80
Glu Asp Thr Leu Phe Leu Lys His Leu Ser Gly Asp Trp Asp Cys Gly
85 90 95
Val Tyr Arg Ile Arg Asp Asp Glu Tyr Lys Ser Leu Gly Ala Val Leu
100 105 110
Arg Asp Ser Arg His Gln Val Thr Asp Asp Thr Ser Ile His Leu Glu
115 120 125
Gln Ile Val Thr Ser His Thr Arg Leu Ala Cys Trp Glu Asp Phe Glu
130 135 140
Ser Glu Glu Glu
145

<210> 38977
<211> 110
<212> PRT
<213> A.fumigatus

<400> 38977
Cys Pro Leu Ala Ala Leu Tyr Leu Thr Arg Ser Arg Trp Leu Pro Leu

```
1               5                   10                  15
Ile Pro Val Pro Asp His Leu Tyr Ala Arg Leu Pro Ser Ser Phe Ala
            20                  25                  30
Gly Asp Leu Glu Ala Gly Leu Ser Ser Ser Gln Phe Asp Ile Ser Ser
        35                  40                  45
Asn Ile Ala Asp Gly Asp Thr Arg Ala Gly Leu Asp Asn Lys Ala Lys
    50                  55                  60
Arg Glu Val Gln Lys Ile Met Lys Thr Gln Asn Val Asn Phe Asp Glu
65                  70                  75                  80
Ala Arg Arg Ile Tyr Thr Glu Arg Arg Phe Ala Thr His Asn Ile Gly
                85                  90                  95
Pro Asp Gly Arg Pro Arg Asp Pro Lys Phe Val Ser Phe Ser
            100                 105                 110
```

<210> 38978
<211> 381
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (126)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38978

```
Asp Arg Ile Leu Pro Val Ser Val Val Arg His Ala Ile Ser Glu Met
1               5                   10                  15
Asp Arg Leu Pro Pro Arg Trp Val Asp Val Gln Asp Glu Val Thr Glu
            20                  25                  30
Leu Leu Ala Asp Ile Ala Gln Lys Ser Ala Gln Leu Asp Lys Leu His
        35                  40                  45
Gln Lys His Leu Leu Pro Gly Phe Gly Asp Glu Glu Val Arg Lys Gln
    50                  55                  60
Asp Glu Arg Met Ile Glu Arg Leu Thr Gln Asp Ile Thr Arg Gly Phe
65                  70                  75                  80
His Glu Cys Gln Thr Ala Val Gln Arg Ile Glu Ala Met Val Arg Glu
                85                  90                  95
Ala Lys Gln Gln Gly Gly Val Ser Ala Gly Asp Glu Thr Met Ala Lys
            100                 105                 110
Asn Ile Gln Ile Ser Leu Ala Ser Arg Val Gln Glu Ala Xaa Ala Arg
        115                 120                 125
Phe Arg Lys Lys Gln Ser Thr Tyr Leu Lys Ser Met His Cys Tyr His
    130                 135                 140
Gly His Trp Glu Asn Ile Val Thr Cys Asp Leu Thr Glu Leu Arg Gly
145                 150                 155                 160
Leu Glu Gly Ala Ala Ala Pro Phe Asp Arg Ala Pro Thr Pro Gln Asn
                165                 170                 175
Pro Tyr Met Asp Pro Ser Leu Met Glu Ser Asp Ala Asp Lys Ser Phe
            180                 185                 190
Ser Gln Ser Thr Leu Met Gln Thr Ser Gln Arg Leu Thr Gly Gln His
        195                 200                 205
Asp Glu Ala Ile Glu Gln Arg Glu Arg Glu Ile Asn Asp Ile Ala Lys
    210                 215                 220
Ser Ile Ile Glu Leu Ser Asp Ile Phe Arg Glu Leu Gln Ala Met Val
225                 230                 235                 240
Ile Asp Gln Gly Thr Met Leu Asp Arg Ile Asp Tyr Asn Ile Glu Arg
```

```
                245                 250                 255
Met Gly Thr Glu Val Lys Ala Ala Glu Lys Glu Leu Lys Val Val Cys
            260                 265                 270
Ala Ser Leu Ile Arg Asp Arg Gly Cys Gln Arg Thr Asp Lys Phe Cys
        275                 280                 285
Leu Lys Ala Thr Asn Tyr Gln Arg Arg Thr Thr Lys Arg Lys Ile Leu
    290                 295                 300
Leu Leu Leu Ile Ile Leu Val Ala Gly Met Ile Ile Leu Leu Ile Val
305                 310                 315                 320
Lys Pro Lys Arg His Ser Ser Pro Ala Pro Thr Pro Ser Pro Pro Arg
                325                 330                 335
Pro Val Glu Gln Pro Pro Ser Glu Gln Pro Pro Ser Leu Phe Pro Arg
            340                 345                 350
Ser Ser Thr Phe Val Tyr Arg Arg Lys Arg Arg Pro Phe Pro Ile Gln
        355                 360                 365
Ser Ser Asp Asp Lys Leu Phe Glu Pro Gly Ile Asn Gly
    370                 375                 380
```

<210> 38979
<211> 96
<212> PRT
<213> A.fumigatus

<400> 38979

```
Tyr Leu Ile Met Met Leu Ile Trp Ile His Pro Gly Gln Thr Glu Val
1               5                   10                  15
Val Glu Thr Asn Gly Ala Ser Asp Glu Asn Asp Phe Leu Ala Arg Glu
            20                  25                  30
Arg Ala Ile Leu Gly Asp Asp Ala Asp Gln Phe Ala Thr Ala Gln Asp
        35                  40                  45
His Val Ala Thr Asp Ile Gly Asp Asp Leu Leu Gly Gly Ala Glu Gly
    50                  55                  60
Ala Val Val Gly Glu Thr Ala Pro Glu Glu Ile Ser Gly Phe Glu Ser
65                  70                  75                  80
Ser Phe Pro Ala Ile Glu Thr Gln Asn Glu Val Ser Phe Arg Ser Pro
                85                  90                  95
```

<210> 38980
<211> 117
<212> PRT
<213> A.fumigatus

<400> 38980

```
Arg Glu Trp Arg Glu Arg Arg Asp Ala Glu Ile Ala Arg Arg Ala Glu
1               5                   10                  15
Leu Ser Asn Glu Lys Lys Glu Ala Thr Ile Lys Lys Ala Arg Glu Asp
            20                  25                  30
Ile Asp Asp Phe Tyr Val Ser Tyr Asn Asn Lys Thr Asp Lys Leu Arg
        35                  40                  45
Ala Gln Thr Arg Ala Asp Ala Glu Gln Phe Leu Ala Asn Arg Glu Asp
    50                  55                  60
Thr Ser Ala Gly Gly Thr Ser Trp Glu Arg Ile Ala Lys Leu Val Asp
65                  70                  75                  80
Ile Ser Gly Lys Gly Ala Lys Gly Gly Ala Ser Gly Ser Gly Lys Glu
                85                  90                  95
Arg Phe Arg Glu Leu Leu Leu Asp Leu Lys Lys Asp Gln Asn Ala Pro
```

```
            100                 105                 110
Gly Ala Ser Gly Ile
        115

<210> 38981
<211> 288
<212> PRT
<213> A.fumigatus

<400> 38981
Ala Ile Glu Ile Asp Lys Ser Arg Ser Thr Gly Lys Lys Pro Leu Leu
1               5                  10                  15
Gly Gly Ser Leu Phe Ser Ser Pro Ser Gly Ser Val Pro Ser Glu Leu
            20                  25                  30
Gln Pro Leu Val Pro Leu Gln Ala Ala Leu Ser Lys Ala Thr Met Ala
        35                  40                  45
Ser Gly Ala Ser Ala Thr Ala Ala Asn Gly Glu Tyr Asp Lys Met Asn
    50                  55                  60
Asp Pro Ala Val Pro Leu Pro Thr Pro Pro Val His Ala Ala Arg Leu
65                  70                  75                  80
Ser Gln Leu Leu Lys Ala Leu Ala Asn Ala Glu Ser Ser Val Ser Glu
                85                  90                  95
Val Ile Lys Ser Arg Leu Ala Leu Ile Asp Gly Leu Glu Lys Leu Leu
            100                 105                 110
Glu Thr Asn Arg Ala Ala Leu Ser Lys Glu Gln Ser Val Leu Ser Gln
        115                 120                 125
Leu Thr Glu Arg Lys Ala Glu Thr Glu Ala Lys Lys Arg Asp Val Glu
    130                 135                 140
Asp Ser Ile Met Arg Gly Leu Ser Ile Asp Asn Pro Ser Leu Pro Gln
145                 150                 155                 160
Pro Ser Asp Ala Gly Ala Glu Ala Pro Ala Val Ala Arg Pro Glu Val
                165                 170                 175
Glu Ala Leu Thr Pro Pro Pro Val Glu Ala Ile Thr Pro Val Gly Ser
            180                 185                 190
Pro Thr Gln Ala Pro Gln Glu Lys Ile Gln Glu Ser Val Glu Glu Gly
        195                 200                 205
Gln Val Asp Gly Phe Ser Leu Pro Gly Ile Gly Gln Pro Thr Asn Asn
    210                 215                 220
Val Pro Ser Asp Thr Gly Leu Pro Gly Leu Ser Ser Leu Ser Gly Met
225                 230                 235                 240
Leu Gln Gln Gly Ser Pro Asn Gly Val Asn Ser Lys Lys Arg Lys Val
                245                 250                 255
Thr His Gly Glu Glu Asp Tyr Ala Gln Tyr Ala Ser Gly Asp Leu Asp
            260                 265                 270
Ala Asp Val Ala Glu Leu Leu Asn Gln Glu Gly Tyr Pro Gln Glu Arg
        275                 280                 285

<210> 38982
<211> 65
<212> PRT
<213> A.fumigatus

<400> 38982
Val His Ser Ile Leu Pro His Pro Tyr Gln Thr Gly Leu Ala Asn Phe
1               5                  10                  15
Asp Asp Leu Tyr Thr Ser Ala Thr Pro Lys Thr Phe Asp Ser Tyr His
```

```
            20                  25                  30
Leu Phe Leu Thr Pro Asn His Leu Leu His Thr Tyr Gly Ala Pro Leu
        35                  40                  45
Pro Pro Asp Arg Arg Gly Arg Arg Leu Leu Ser Leu Thr Pro Phe Ser
    50                  55                  60
Thr
65
```

<210> 38983
<211> 90
<212> PRT
<213> A.fumigatus

<400> 38983

```
Ser Ser Gln Gly Ala Leu Met Tyr Leu Val Ala Ile Thr Asn Ile Leu
1               5                   10                  15
Thr Asp Met Ala Val Leu Thr Leu Pro Phe Phe Met Met His Lys Val
            20                  25                  30
Gln Met Ser His Gly Lys Arg Val Lys Ile Leu Cys Ala Phe Cys Thr
        35                  40                  45
Arg Ala Leu Leu Val Thr Arg His Cys Thr Ser Tyr Ser Thr Leu Met
    50                  55                  60
Glu Thr Gln His Arg Leu Thr His Asn Trp Ala Thr Ser Asp Thr Thr
65                  70                  75                  80
Thr Ile Leu Asn Ile Ile Arg Tyr Tyr Met
                85                  90
```

<210> 38984
<211> 115
<212> PRT
<213> A.fumigatus

<400> 38984

```
Pro Ser Gln Ser Val Ile Asn Ala Ser Arg Lys Arg Ile Pro Gly Leu
1               5                   10                  15
Glu Asp Val Glu Pro Ile Gln Gly Thr Thr Ala Thr Thr Thr Tyr Val
            20                  25                  30
Tyr Ile Thr Asn Gln Ser Ala Gly Pro Arg Pro Asp Glu Ser Ser Pro
        35                  40                  45
Ser Ala Arg Val Asn Thr Phe Pro Ser Met Glu Pro Glu Lys Thr Cys
    50                  55                  60
Gln Leu Leu Glu Ala His Leu Gln Leu Tyr His Asn Gln Ile Lys Asn
65                  70                  75                  80
Ile Ser Ser Arg Asp Ile Asp Ile Gln Met Ala Ser Leu Pro Pro Ser
                85                  90                  95
Leu Cys Gln Phe Ser Ser His Arg Pro Leu Gln Ile Gly Glu Arg Thr
            100                 105                 110
Leu Ser Gly
        115
```

<210> 38985
<211> 63
<212> PRT
<213> A.fumigatus

<400> 38985

```
Ile Ser Ile Thr Ile Asp Gly Leu Ser Thr Val Lys Phe Gln Val Tyr
1               5                  10                  15
Lys Asp Val Glu Asp Trp Leu Asn Ile Phe Pro Ser Phe Tyr Arg Gly
            20                  25                  30
Met Cys Asn Trp Ile Tyr Asp Ile Ala Thr Thr Ile Ser Cys Leu Ser
        35                  40                  45
Tyr Ala Asp Leu Gln Glu His Leu Gln Thr Pro Leu Arg Lys Leu
    50                  55                  60
```

<210> 38986
<211> 65
<212> PRT
<213> A.fumigatus

<400> 38986

```
Ala Ser Ser Phe Lys Leu Gln Gln Lys Glu Ala Pro Asp Glu Gln Leu
1               5                  10                  15
Ser Asn Asp Gly Arg Leu Asn Pro Leu Phe Met Asn Gln Val Ala Asp
            20                  25                  30
Asp Gln Val Tyr Ser Ser Tyr Gly Ala Gln Asn Lys Ala Pro Leu Gln
        35                  40                  45
Gln Ile Ala Gln Ala Tyr Asp Pro Ala Arg Phe Met Lys Arg His Gly
    50                  55                  60
Arg
65
```

<210> 38987
<211> 123
<212> PRT
<213> A.fumigatus

<400> 38987

```
Ser Ser Ser Cys Leu Arg Lys Ile Thr Asn Gln Ser Glu Val Gly Glu
1               5                  10                  15
Val Glu Arg Leu Leu Glu Ser Ala Leu Val Glu Arg Phe Pro Arg His
            20                  25                  30
Tyr Asn Ser Pro Ile Met Leu Ser Glu Thr Ala Lys Arg Arg Thr Asn
        35                  40                  45
Arg Lys Gly Thr Glu Ser Lys Ser Ile Glu His Ser Tyr Tyr Phe Leu
    50                  55                  60
Arg Asn Ile Arg Ser Ile Val Asp Gln Tyr Ala Arg Arg Thr Thr Ile
65                  70                  75                  80
Thr Ser Thr Tyr Pro Cys Asn Asp Pro Gly Lys Arg His Ala Gly Tyr
                85                  90                  95
Ile Asn Asp Ala Leu Gln Tyr Val Pro Arg Trp Pro Val Leu Phe Thr
            100                 105                 110
Lys Leu His Pro Ala Glu Val Gly Leu Val Val
        115                 120
```

<210> 38988
<211> 76
<212> PRT
<213> A.fumigatus

<400> 38988

```
Ile Tyr Ile Asn Ala Pro Val Cys Leu Ser Ser Arg Gly Ala Val Cys
```

```
1               5                   10                  15
Val Lys Leu Pro Pro Met Ser Ser Ile Leu Phe Lys Asn Ser Pro Leu
            20                  25                  30
Leu Ala Lys Arg Arg Asn Lys Ser Asn Ile Asn Asn Ile Asn Asn Val
        35                  40                  45
Ser Val Val Asp Trp Arg Ser Val Gln Leu Ser Tyr Asp Ala Leu Ile
    50                  55                  60
Pro Leu Ile Ser Phe Lys Phe Ile Arg Arg Gln Pro
65                  70                  75
```

<210> 38989
<211> 86
<212> PRT
<213> A.fumigatus

<400> 38989

```
Gly Ser Arg Asn Ile Asn Ile Ala Val Phe Leu Pro Cys Pro Ser Val
1               5                   10                  15
Pro Arg Leu Cys Ile Pro Pro Leu His Leu Ser Leu Ile Phe Leu Val
            20                  25                  30
Lys Ser Leu Thr Ala Met Pro Cys Trp Ser Ser Leu Ala Leu Glu Val
        35                  40                  45
His Met Thr Phe Tyr His Gly Glu Leu Asn Leu Thr Tyr Gln His Pro
    50                  55                  60
Gly Ile Pro Glu Thr Val Ile Val Cys Tyr Ile Gln Tyr Ala Phe Phe
65                  70                  75                  80
Thr Gln Ala Val Tyr Leu
                85
```

<210> 38990
<211> 473
<212> PRT
<213> A.fumigatus

<400> 38990

```
Cys Ser Glu Leu Asp Asn Ser Thr Val Ser Thr Tyr Arg Asn Phe Ala
1               5                   10                  15
Ala Ser Glu Tyr Gly Gln Leu Ser Met Leu Ala Thr Leu Asn Thr Val
            20                  25                  30
Thr Ser Val Val Ala Ala Val Ser Lys Pro Pro Ile Ser Lys Leu Ser
        35                  40                  45
Asp Val Leu Gly Arg Ala Glu Thr Tyr Ile Ile Thr Ile Thr Cys Tyr
    50                  55                  60
Val Leu Ser Tyr Val Leu Cys Ala Ser Ala Arg Ser Leu Asp Thr Tyr
65                  70                  75                  80
Ala Gly Gly Cys Val Leu Tyr Ala Leu Gly Gln Ser Gly Thr Ser Ile
                85                  90                  95
Leu Asn Ala Ile Val Ile Ser Asp Ile Ser Ser Met Arg Trp Arg Gly
            100                 105                 110
Phe Val Tyr Asn Ile Ile Tyr Leu Pro Phe Leu Val Thr Pro Trp Val
        115                 120                 125
Ser Ala Phe Ile Val Glu Asn Val Val Asn Gly Ile Gly Trp Arg Trp
    130                 135                 140
Gly Ile Gly Met Phe Ala Ile Leu Met Pro Ser Cys Ala Ser Ile Ile
145                 150                 155                 160
Ile Ile Ser Leu Leu Val Phe Gln His Arg Ala Lys Lys Thr Ser Ser
```

```
                165                 170                 175
Val Val Tyr His Arg Pro Ser Val His Gly Phe Cys Ser Gly Ile Asp
            180                 185                 190
Leu Gly Gly Ile Ala Ile Leu Thr Cys Gly Phe Ser Ser Leu Leu Ile
        195                 200                 205
Pro Thr Thr Leu Ala Ala Thr Thr Thr Ser Arg Trp Lys Thr Pro Trp
    210                 215                 220
Ile Asp Ala Leu Ile Val Leu Gly Ala Val Leu Leu Ala Cys Leu Tyr
225                 230                 235                 240
Pro Tyr Glu Lys Tyr Ile Ala Gly Asn Pro Val Phe Pro Val Arg Tyr
                245                 250                 255
Phe His Thr Leu Ser Val Leu Val Pro Val Ala Leu Ala Cys Ile Asp
            260                 265                 270
Asn Ile Gly Phe Gly Thr Thr His Thr Tyr Leu Tyr Ala Trp Ser Met
        275                 280                 285
Val Ser His Asn Phe Ser Pro Arg Asn Ala Gln Phe Leu Ser Trp Thr
    290                 295                 300
Ser Gly Val Ile Gln Ala Leu Ala Gly Met Cys Ile Gly Leu Leu Met
305                 310                 315                 320
Tyr Arg Leu Arg Arg Tyr Lys Trp Ile Ala Val Ala Gly Ala Ile Val
                325                 330                 335
Arg Leu Ile Gly Tyr Gly Leu Met Ile Arg Leu Arg Thr Asn Thr Ser
            340                 345                 350
Ser Leu Ala Glu Leu Phe Ile Thr Gln Leu Ile Gln Gly Leu Gly Ser
        355                 360                 365
Gly Val Ile Glu Thr Val Ala Ile Val Ala Ala Gln Val Ser Val Pro
    370                 375                 380
His Ser Glu Leu Ala Gln Val Thr Ser Leu Val Met Leu Gly Ala Phe
385                 390                 395                 400
Val Gly Asn Ala Val Gly Ser Ala Ile Ala Gly Gly Ile Tyr Thr Gly
                405                 410                 415
Lys Leu Arg Glu Arg Leu Gln Val Arg Leu Gly Ser Ala Ile Gly Glu
            420                 425                 430
Ala Arg Leu Asp Gln Leu Tyr Asn Ser Ile Thr Gly Thr Leu Pro Met
        435                 440                 445
Trp Gly Thr Trp Gln Arg Val Ala Val Asn Gln Ala Val Ser Ile Thr
    450                 455                 460
Arg Leu Leu Leu Leu Tyr Ile Thr Cys
465                 470
```

<210> 38991
<211> 165
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (162)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 38991

```
Arg Gly Glu Asp Thr Ser Gln Asn Leu Lys Lys Arg Asp Arg His Gln
1               5                   10                  15
Leu Ser Asp Phe Ile Lys Gln Leu Gln Tyr Thr Leu Tyr Asp Ala Ile
            20                  25                  30
Ser His Leu Gly Asn Ala Asp Val Ser Ile Val Thr Ala Thr Thr Ile
```

```
        35                  40                  45
Arg Thr Ile His Thr Leu Leu His Glu Ala Ile Ser Gly Pro Ser His
    50                  55                  60
Val Tyr Glu Arg Thr Thr Asn Thr Ile Arg Tyr Val Ile Lys Ser Leu
65                  70                  75                  80
Gln Lys Gln Asn Ile Arg Leu Leu Ser Asp Lys Ser Arg Gln Asp Ser
                85                  90                  95
Thr Leu Arg Val Val Ser Ile Leu Val Ala Gln Gln Asp Ala Ala Ser
            100                 105                 110
Asn Ile Leu Leu Ala Thr Ser Met Lys Gln Asp Ser Thr Arg Met Asn
        115                 120                 125
Ala Ile Ala Ala Leu Thr Met Val Ser Pro Gln Asp Ile Tyr Ser Ser
    130                 135                 140
Glu Tyr Gln Thr Ile Arg Phe Leu Pro Ser Leu Arg Asn Cys His Asp
145                 150                 155                 160
Leu Xaa Ser Leu Cys
                165
```

<210> 38992
<211> 263
<212> PRT
<213> A.fumigatus

<400> 38992

```
Gly Ala His Gly Leu Ser Ser Gly Glu Arg Pro Gly Pro Pro Asp Gly
1               5                   10                  15
Tyr Cys His Cys Ala Leu Thr Ser Lys Asp Pro Gly Asp Gly Leu Pro
            20                  25                  30
Val Trp Trp Cys Ser Phe Asn Gln Ser Arg Tyr Ser Gln Pro Ser Leu
        35                  40                  45
Ser Leu Ser Tyr Gln Ala Leu Met Asn Ala Gly Gly Pro Gly Gly Ser
    50                  55                  60
Gly Val Glu Gln Ala Leu Leu Phe Gly Arg Asp Met Gln Thr Ile Ile
65                  70                  75                  80
Asp Gly Glu Thr Asp Pro Ala Leu Pro Thr Gly Pro Ala Asn Leu Ser
                85                  90                  95
Ala Arg Tyr Phe Asp Ile Ile Gly Phe Asp Pro Arg Gly Val Asn Asn
            100                 105                 110
Thr Thr Pro Gly Phe Ser Cys Phe Pro Asp Ser Phe Ser Gln Arg Asn
        115                 120                 125
Trp Glu Leu Gln Val Glu Ala Asp Gly Met Leu Gly Ser Ser Asp Asp
    130                 135                 140
Ser Leu Met Arg Asn Trp Gln Arg Ala Val Ala Leu Gly Gly Ala Cys
145                 150                 155                 160
Ser Lys Ala Leu Gln Tyr Ala Pro Glu Gly Thr Asp Glu Ala Leu Gly
                165                 170                 175
Asp His Leu Asn Thr Pro Pro Val Ala Arg Asp Met Leu Glu Ile Ile
            180                 185                 190
Glu Arg His Gly Glu Trp Arg Glu Arg Gln Gly Gln Thr Glu Gln Arg
        195                 200                 205
Met Tyr Asp Arg Met Tyr Gly Tyr Asp Gln Gln Gln Ser Ile Val Ala
    210                 215                 220
Arg Thr Lys Trp Lys Arg Gly His Glu Lys Leu Leu Tyr Trp Gly Arg
225                 230                 235                 240
Ser Tyr Gly Thr Val Leu Gly Ser Thr Phe Ala Thr Met Phe Pro Asp
                245                 250                 255
```

```
Arg Val Glu Arg Leu Leu Leu
            260

<210> 38993
<211> 66
<212> PRT
<213> A.fumigatus

<400> 38993
Phe Leu Thr Gly Gln Ala Gly Gln Ile Glu Asn Leu Pro Lys Asn Asp
1               5                   10                  15
Thr Glu Ile Asn Ser Met Arg Val Ile Thr Asn Lys Gln Pro Val Ser
            20                  25                  30
Glu Glu Glu Ser Arg Met Leu Ile Arg Ser Trp Lys Arg Asn Phe Asn
        35                  40                  45
Leu Asn Gly Tyr Tyr Ile Trp Phe Gln Trp Asp Arg Val Ile Ser Ser
    50                  55                  60
Pro Ala
65

<210> 38994
<211> 106
<212> PRT
<213> A.fumigatus

<400> 38994
Ser Ser Leu Ile Arg Tyr Ile Met Glu Asp Arg Gln Arg His Cys Trp
1               5                   10                  15
Glu Cys Leu Arg Arg Ser Leu Val Cys Asp Phe Ile Arg Pro Gln Cys
            20                  25                  30
Lys Arg Cys Ser Thr Ser Gly Ile Val Cys Pro Gly Tyr Glu Asp Lys
        35                  40                  45
Ala Pro Phe Arg Leu Lys Trp Leu Pro Pro Gly Arg Val Lys Phe Arg
    50                  55                  60
Asn Arg Lys Gln Val Lys His Gln Lys Met Asn Arg Ala Arg Val Ala
65                  70                  75                  80
Ala Glu His Ser Val Val Pro Arg Phe Asp Thr Ile Tyr Asp Ala Pro
                85                  90                  95
Val Leu Ala Gln Ala Ala Glu Tyr Cys Lys
            100                 105

<210> 38995
<211> 248
<212> PRT
<213> A.fumigatus

<400> 38995
Leu Lys Ala Trp Pro Tyr Ser Pro Leu Leu Glu Leu Ala Asn Tyr His
1               5                   10                  15
Val Leu Gly Arg Leu Phe Tyr Tyr Val Pro Asn Leu Ala Pro Leu Pro
            20                  25                  30
Pro Gly Lys Val Leu Ala Ile Phe Gly Ala Leu Met Ala Leu Val Glu
        35                  40                  45
Ala Leu Asn Ala Leu Gly Val Ala Leu Asn Ala Asn Pro Thr Gly Ser
    50                  55                  60
Gln Gln Gly Leu Gly Lys Ala Leu Ile Leu Val Ser Leu Ala Leu Gln
```

```
65                  70                  75                  80
Leu Cys Val Val Leu Ala Phe Val Leu Thr Ala Ala Ser Phe Gln Trp
                85                  90                  95
Arg Cys Ala Lys Ser Gln Tyr Ser Phe Ala Gly Ser Leu Ala Thr Leu
            100                 105                 110
Leu Phe Thr Val Asp Ile Ser Met Gly Leu Ile Leu Val Arg Cys Ile
        115                 120                 125
Tyr Arg Leu Ile Glu His Val Asp Asn Thr Ser Val Asp Leu Val Ile
    130                 135                 140
Pro Glu Gly Leu Arg Ser Leu Ser Pro Leu Leu Arg Tyr Glu Trp Phe
145                 150                 155                 160
Phe Tyr Val Trp Glu Ala Ser Leu Met Leu Leu Asn Ser Phe Leu Trp
                165                 170                 175
Asn Val Phe Asn Pro Gly Arg Tyr Leu Pro Arg Tyr Pro Thr Val Tyr
            180                 185                 190
Leu Ala Ala Asp Gly Thr Thr Glu Ile Glu Glu Glu Glu Val Arg Asn
        195                 200                 205
Asp Gln His Phe Leu Val Lys Ser Ala Tyr Ala Ala Val Asn Ala Leu
    210                 215                 220
Thr Phe Gly Leu Phe Arg Leu Phe Val Arg Gln Lys Asp Glu Glu Asn
225                 230                 235                 240
His Pro Leu Thr Glu Arg Thr Lys
                245
```

<210> 38996
<211> 157
<212> PRT
<213> A.fumigatus

<400> 38996

```
Arg Pro Pro Cys Ser Ser Ser Arg Leu Arg Ser Trp Ser Cys Cys Asn
1               5                   10                  15
Lys Thr Ser Ser Pro Thr Pro Pro Pro Thr Ala Ser Leu His Pro Ser
            20                  25                  30
Ala Thr Ser Cys Lys Pro Ser Ser Gly Ala Pro Pro Ser Arg His Asp
        35                  40                  45
Thr Ala Ser Pro Arg Arg Ser Ala Ser Arg Ser Ser Ala Arg Thr Pro
    50                  55                  60
Ser Pro Ser Ser Ser Ser Pro Pro Thr Pro Gly Arg Ile Phe Cys Pro
65                  70                  75                  80
Ala Ser His Gln Pro Thr Trp Ala Ala Cys Ser Ser Ser Thr Ala Pro
                85                  90                  95
Ala Cys Pro Ser Arg Pro Phe Ala Pro Pro Arg Pro Ala Ser Pro Lys
            100                 105                 110
Ser Arg Cys Ser Ser Ala Asn Pro Pro Arg Ala Ser Pro Arg Arg Ser
        115                 120                 125
Cys Thr Thr Pro Ser His Ser Cys Ser Pro Ser Pro Ala Thr Ala Gly
    130                 135                 140
Ser Pro Pro Pro Thr Trp Ala Ser Ser Thr Cys Thr Pro
145                 150                 155
```

<210> 38997
<211> 924
<212> PRT
<213> A.fumigatus

<400> 38997

```
Gly Ala Gly Ile Ile Met Asn Ile Leu Met Pro Ala Leu Phe Asn Leu
1               5                  10                  15
His Cys Val Phe Gly Pro Ala Gly Val Leu Pro Asn Ile Asn Leu Val
            20                  25                  30
Asp Ala Leu Ala Val Ser Thr Arg Ile Asp Ile Trp Ser Met Val Pro
        35                  40                  45
Ser Leu Val Asp Glu Leu Gly Glu Thr Pro Ala Val Leu Ser Lys Leu
    50                  55                  60
Lys Ser Ser Lys Phe Ile Cys Ala Ser Gly Gly Pro Val Ser Pro Val
65                  70                  75                  80
Ser Ala Gly Lys Val Asn Glu Val Ile Arg Val Leu Asn Leu Thr Gly
                85                  90                  95
Thr Thr Glu Gly Leu Phe Met Gly Asn Leu Ile Pro Pro Arg Glu Asp
            100                 105                 110
Trp Phe Trp Phe Cys Phe His Pro Tyr Ser Gly Phe Glu Phe Lys Gln
        115                 120                 125
Val Glu Pro Asp Thr Tyr Glu His Trp Val His Arg Asn Glu His Trp
    130                 135                 140
Pro Leu Phe Gln Gly Ile Phe His Thr Phe Pro Glu Lys Gln Ser Ile
145                 150                 155                 160
Asn Phe Lys Asp Leu Tyr Val Arg His Pro Thr Lys Pro Asn Leu Trp
                165                 170                 175
Ala Phe Lys Gly Arg Ser Asp Asp Leu Val Val Leu Ser Asn Gly Tyr
            180                 185                 190
Lys Ile Ser Pro Leu Gln Thr Glu Ala Phe Ile Thr Thr His Pro Ala
        195                 200                 205
Ile Lys Gly Cys Leu Val Phe Gly Thr Gly Lys Pro Gln Ala Gly Leu
    210                 215                 220
Leu Ile Glu Leu Lys Asp Pro Leu Gln Lys Thr Asp Glu Leu Leu Asp
225                 230                 235                 240
Ser Ile Trp Glu Thr Val Gln Gln Ala Asn Ser Met Ser Arg His Lys
                245                 250                 255
Asn Gln Leu Leu Arg Asp Phe Val Ala Phe Ala Thr Pro Asp Lys Pro
            260                 265                 270
Phe Cys Arg Thr Asp Lys Gly Thr Val Lys Arg Ser Ala Thr Leu Lys
        275                 280                 285
Leu Tyr Ala Asp Tyr Ile Glu Arg Phe Tyr Arg Ser Arg Asn Asp Asp
    290                 295                 300
Leu Gly Gly Thr Phe Asp Phe Asp Met Ser Ser Ala His Ser Ile Glu
305                 310                 315                 320
Asp Asn Val Arg Lys Ile Leu Ala Ala Ser Leu Pro Asp Val Gln Glu
                325                 330                 335
Ala Ser Ala Asp Thr Asp Leu Phe Ala Leu Gly Leu Asp Ser Leu Gly
            340                 345                 350
Val Phe Ala Ala Ile Lys Thr Ile Arg Ala Ala Thr Gly Leu Gly Asp
        355                 360                 365
Gln Ile Gly Pro Arg His Ile Tyr Ala Asn Pro Thr Ile Ala Arg Leu
    370                 375                 380
Ser Ala Ile Ile Ala Leu Leu Ala Ser Ala Ser Asp Thr Thr Leu Cys
385                 390                 395                 400
Glu Arg Pro Val Asp Asp Val Gly Ala Gln Ile Ala Arg Met Ile Ala
                405                 410                 415
Gln His Lys Ala Arg Gln Ser Phe Ser Leu Asn Ala Phe Asp Tyr Val
            420                 425                 430
Asn Pro Asn His Gly Met Gly Leu Val Leu Tyr Phe Pro Ile Arg Asp
```

```
        435                 440                 445
Gly Val Ser Tyr Glu Gln Val Phe Ala Asn Leu Gln Ala Gly Leu Asn
    450                 455                 460
Arg Thr Phe Asp Leu Ile Pro Ala Leu Ser Gly Lys Met Thr Asp Cys
465                 470                 475                 480
Ser Glu Gln Gly Ile Gly Tyr Thr Lys Gly Asp Leu Cys Val Thr Ile
                485                 490                 495
Pro Pro Leu Ala Lys Ala Asp Ser Ala Arg Asn Arg Leu Val Tyr Lys
            500                 505                 510
Asp Leu Ser Ala Val Leu Pro Ser Phe Asp Asp Leu Arg Lys Gly Gly
        515                 520                 525
Phe Ala Pro Ser Ala Phe Ser Asp Thr Leu Val Leu Arg Asp Asp Pro
    530                 535                 540
Phe Pro Gln Met Pro Ala Asp Ile Phe Val Gly Gln Ala Asn Phe Val
545                 550                 555                 560
Ser Gly Gly Cys Ile Leu Ala Val Asp Leu Asn His Cys Cys Leu Asp
                565                 570                 575
Gly Leu Gly Ala Met Val Ala Leu Lys Ala Trp Ala Glu Asn Cys Arg
            580                 585                 590
Tyr Leu Gln Gly Asp Gln Ser Ala Thr Cys Gly Trp Tyr Asp Pro Glu
        595                 600                 605
Ser Phe Asn His Ser Leu Pro Glu Ile Leu His Arg Gln Glu Gly Trp
    610                 615                 620
Ala Arg Pro Leu His Glu Ile Asp Pro Gly Thr Trp Gly Phe Leu Pro
625                 630                 635                 640
Phe Phe Pro Pro Glu Asp Glu Glu Thr Asn Pro Arg Cys Glu Lys Ala
                645                 650                 655
Thr Glu Gly Ser Leu Pro Ala Arg Pro Ile Phe Pro Leu His Pro Val
            660                 665                 670
Trp Pro Leu Pro Arg Ala Glu Arg Cys Leu Lys Thr Thr Met Phe Leu
        675                 680                 685
Val Thr Pro Glu Lys Leu Glu Leu Leu Gln Gln Asp Val Ile Ala Asp
    690                 695                 700
Pro Ala Thr Asn Gly Ile Thr Pro Ser Ile Ser Asp Ile Val Gln Ala
705                 710                 715                 720
Phe Phe Trp Arg Ala Ala Ile Lys Ala Arg Tyr Arg Val Ala Thr Glu
                725                 730                 735
Ile Arg Lys Gln Lys Phe Ser Pro Asp Ala Val Ser Ile Leu Glu Leu
            740                 745                 750
Pro Thr Asp Thr Arg Pro His Phe Leu Ser Arg Phe Pro Pro Thr Tyr
        755                 760                 765
Met Gly Ser Met Leu Ile Phe Asn Arg Thr Ser Met Pro Ile Glu Thr
    770                 775                 780
Phe Cys Ser Ala Glu Thr Ser Ile Ala Lys Val Ala Leu Leu Leu Arg
785                 790                 795                 800
Gln Ser Ala Ala Arg Ile Thr Pro Ser Leu Val His Asp Ala Phe Ser
                805                 810                 815
Leu Leu Gln Ser Leu Pro Gly His Arg Arg Phe Ser Thr Ala Asn Met
            820                 825                 830
Gly Leu Glu His Met His Ala Met Ile Ser Asn Met Leu Leu Phe Pro
        835                 840                 845
Thr Ser Glu Ile Gly Phe Gly Asp Ala Phe Phe Ala Asn Gly Gly Val
    850                 855                 860
Pro Glu Thr Met Arg Pro Gln Leu Glu Arg Gly Asn Gly Arg Phe Arg
865                 870                 875                 880
Phe Leu Ala Val Phe Pro Leu Arg Lys Asp Gly Gly Val Glu Leu Val
```

```
                885                 890                 895
Leu Gly Thr His Arg Glu Glu Leu Glu Met Leu Val Thr Asp Glu Glu
            900                 905                 910
Phe Thr Arg Tyr Ala Arg Met Val Asp Thr Cys Cys
        915                 920
```

<210> 38998
<211> 134
<212> PRT
<213> A.fumigatus

<400> 38998

```
Gly Arg Arg Pro Phe Leu His Leu Phe Val Arg Ile Asp Pro Lys Asp
1               5                  10                  15
Thr Val Ala Ala Asp Leu Leu Asp Pro Ala Thr Val Thr Gly Leu Gly
            20                  25                  30
Ile Ala Gly Thr Met Gly Tyr Val Pro Asp Gly Arg Val Leu Gly Leu
        35                  40                  45
Ser Lys Leu Ala Arg Ile Ala Glu Val Tyr Ser Arg Arg Leu Gln Val
    50                  55                  60
Gln Glu Arg Leu Thr Gln Glu Ile Ala Asp Ala Ile Asn Arg Val Leu
65                  70                  75                  80
Ala Pro Thr Gly Val Val Val Leu Ile Glu Ser Thr His Leu Cys Met
                85                  90                  95
Ser Met Arg Gly Val Gln Lys Ser Gly Ala Thr Thr Ile Thr Ser Cys
            100                 105                 110
Met Thr Gly Val Leu Glu His Asp Pro Lys Leu Arg Asn His Ala Glu
        115                 120                 125
Phe Leu Leu Arg Ile Arg
    130
```

<210> 38999
<211> 437
<212> PRT
<213> A.fumigatus

<400> 38999

```
Ile Ser Phe Thr Phe Ile Leu Pro Leu Phe Pro Ser Leu Leu Thr Phe
1               5                  10                  15
Tyr Arg Ser Gln Asp Pro Ser Pro Thr Ser Leu Leu Asn Gln Val Phe
            20                  25                  30
His Tyr Leu Asn Ala Tyr Lys Asn Ser Phe Ala Lys Pro Ile Asp Ser
        35                  40                  45
Arg Tyr Asp Ile Val Leu Leu Gly Gly Ala Leu Gly Ser Leu Phe Ser
    50                  55                  60
Leu Leu Gln Ala Ile Ala Ala Pro Phe Ile Gly Arg Leu Ser Asp Arg
65                  70                  75                  80
Tyr Gly Arg Arg Thr Ala Leu Leu Cys Ser Met Val Gly Asn Thr Leu
                85                  90                  95
Ser Val Ala Leu Trp Val Ala Ala Thr Asp Phe Arg Thr Phe Leu Ala
            100                 105                 110
Ser Arg Ile Val Gly Gly Leu Ser Glu Gly Asn Val Gln Leu Ala His
        115                 120                 125
Ala Ile Ala Thr Asp Ile Ser Asp Glu Ser Lys Arg Gly Ser Thr Met
    130                 135                 140
Ala Leu Val Gly Ala Cys Phe Ser Ile Ala Phe Thr Cys Gly Pro Ala
```

```
145                 150                 155                 160
Leu Gly Ala Ala Leu Ser Asn Ile Thr Thr Val Ala Ala Asn Pro Phe
                165                 170                 175
Ala Thr Ala Ala Gly Val Ser Leu Val Leu Ile Val Thr Glu Thr Leu
            180                 185                 190
Tyr Leu Tyr Arg Cys Leu Pro Glu Thr His Pro Arg Leu Thr Lys Leu
        195                 200                 205
Ser Leu Gly Pro His Arg Ala Glu Asp Thr Ala Ser Pro Thr Gln Lys
    210                 215                 220
Asn Gly Lys Gln Ala Asp Ala Ser Asn Pro Asp Ser Thr Met Pro Arg
225                 230                 235                 240
Lys Arg Thr Asn Asn Pro Ala Leu Leu Asn Leu Leu His Phe Leu Phe
                245                 250                 255
Leu Leu Pro Phe Ser Gly Leu Glu Phe Ser Leu Pro Phe Leu Thr Ala
            260                 265                 270
Thr Phe Tyr Ala Gly Ser Thr Ala Ser Pro Ser Ala Leu Asn Gly Arg
        275                 280                 285
Leu Leu Ser Leu Met Gly Leu Ile Ala Ser Leu Leu Gln Gly Thr Val
    290                 295                 300
Val Arg Arg Leu Pro Pro Leu Met Thr Leu Arg Ala Gly Val Val Ala
305                 310                 315                 320
Cys Thr Ile Ser Phe Phe Leu Leu Ala Arg Val Ser Ser Leu Val Gly
                325                 330                 335
Leu Tyr Ser Ala Gly Ala Leu Leu Ala Val Thr Ser Ala Thr Val Val
            340                 345                 350
Thr Gly Leu Asn Ser Leu Gly Ser Leu Glu Ala Arg Glu Gly Glu Arg
        355                 360                 365
Gly Leu Val Leu Gly Arg Leu Arg Ser Trp Gly Gln Val Gly Arg Ala
    370                 375                 380
Ala Gly Pro Leu Leu Phe Cys Ser Leu Phe Trp Trp Val Gly Arg Glu
385                 390                 395                 400
Ile Ala Tyr Thr Thr Gly Gly Phe Ala Met Leu Ala Val Cys Val Gly
                405                 410                 415
Val Phe Thr Met Leu Arg Ser Pro Pro Ile Glu Ser Val Ala Met Ala
            420                 425                 430
Gly Lys Val Lys Ala
        435
```

<210> 39000
<211> 218
<212> PRT
<213> A.fumigatus

<400> 39000

```
Tyr Phe Gln Asp Pro Cys Ile Tyr Asp Ser Glu Gly Val Leu Leu Ile
1               5                   10                  15
Leu Gln His Trp Arg Thr His Gly Gln Ala Arg Trp Val Pro Leu Leu
            20                  25                  30
Asp Thr Lys Gln Leu Asp Arg Leu Ala Gly Gly Arg Lys Glu Glu Thr
        35                  40                  45
Tyr Trp Pro Val Pro Val Ala Gln Glu Lys Phe His Cys Ile Ile Leu
    50                  55                  60
Lys Gly Gly Asp Arg Tyr Pro Tyr Phe Pro Arg Pro Leu Leu Ser Glu
65                  70                  75                  80
Phe Asp Phe Arg Ile Pro Ile Ser Asp Arg Pro Gln Lys Ala Ser Asp
                85                  90                  95
```

```
Asp Glu Gly Asp Glu Ser Arg Asn Asp Ala Ser Ala Arg Phe Glu Glu
            100                 105                 110
Ser Phe Val Arg Gly Asn Val Leu Leu Ser Leu Phe Gln Asp Leu Leu
        115                 120                 125
Ser Ser Thr Asn Ala Thr Pro Ser Gln Arg Val Glu Leu Ala Arg Lys
    130                 135                 140
Glu Ile Glu Leu Asp Lys Ile Leu Leu Gln Met Leu Ala Val Glu Cys
145                 150                 155                 160
Arg Glu Gly Glu Glu Arg Gly Met Lys Ala Leu Glu Leu Val Arg Met
                165                 170                 175
Met Lys Asp Arg Asn Gly Lys Met Ile Glu Ala Ala Ala Lys Ile Ala
            180                 185                 190
Glu Arg Tyr Gly Arg Gly Val Leu Glu Asp Lys Ile Arg Asp Leu Ala
        195                 200                 205
Glu Arg Ala Ile His Gly Asp Arg Arg Arg
    210                 215
```

<210> 39001
<211> 250
<212> PRT
<213> A.fumigatus

<400> 39001

```
Arg Cys Pro Phe Ala Ala Leu Arg Thr Leu Ser Pro Leu Leu Pro Thr
1               5                   10                  15
Leu Leu Ile Asn Pro Leu Pro Pro Ser Ile Leu Ser Pro Asn Ile Thr
            20                  25                  30
Leu His Leu Phe Pro Ser Thr His Pro His Leu Pro Thr Val Lys Gly
        35                  40                  45
Arg Thr Leu Tyr Arg Ala Ala Leu Trp Thr Val Pro Val Ala Trp Ser
    50                  55                  60
Ser Leu Pro Leu Val Gly Asn Val Lys Leu Leu Ile Leu Ser Glu Arg
65                  70                  75                  80
Ile Val Arg Ala Gly Thr Val Leu Asp Pro Asp Gly Cys Ser Glu Ser
                85                  90                  95
Glu Ser Gly Asp Glu Arg Leu Val Val Arg Trp Arg Thr Glu Pro Arg
            100                 105                 110
Arg Glu Gly His Lys Gly Gly Ser Ala Gly Ala Ala Ser Lys Ser Asn
        115                 120                 125
Lys Ala Leu Ser Ser Ser Ser Ser Ser Glu Lys Leu Ser His Thr Ser
    130                 135                 140
Ala Lys Asn Gly Val Asn Lys Gly Leu Ser Val Leu Leu Gly Gly Asp
145                 150                 155                 160
Ala Pro Ile Phe Lys Leu Ser Asn Glu Glu Gln Phe Thr Gly Leu Phe
                165                 170                 175
Ile Phe Ser Phe Asp Glu Glu Gly Arg Ile Ser Ser His Thr Ile Glu
            180                 185                 190
His Ala Asp Asp Ala Gly Gly Trp Asp Arg Thr Ala Lys Phe Val Thr
        195                 200                 205
Leu Thr Asp Trp Leu Ile Gly Lys Ala Arg Gly Ser Leu Asp Pro Pro
    210                 215                 220
Pro Gly Leu Ala Ile Gln Gly Cys Gln Thr Cys Ser Phe Pro Ser Pro
225                 230                 235                 240
Arg Thr His Arg Gly Ser Asp Arg Ser Thr
                245                 250
```

<210> 39002
<211> 73
<212> PRT
<213> A.fumigatus

<400> 39002
Cys Leu Glu Ala Thr Ile Lys Ser Arg Asn Asp Cys Cys Trp Arg Asp
1 5 10 15
Glu Cys His Ser Phe His Leu Leu Tyr Lys Pro Ile Tyr Ala Lys Ile
20 25 30
Asp Pro Phe Ser His Arg Pro Ala Met Ser Leu Arg Arg Arg His Ser
35 40 45
Asn Leu Pro Ile Thr Ile Thr Ile Ser Pro His Ser Met Ala Gln Ile
50 55 60
Arg His Ala Gly Pro Arg Gly Glu Leu
65 70

<210> 39003
<211> 64
<212> PRT
<213> A.fumigatus

<400> 39003
Gly Val Lys His Gln Arg Glu Asn Leu Thr Lys Glu Met Tyr Ile Ser
1 5 10 15
Tyr Ser Phe Pro Val Phe Val Thr Val Ile Val Leu Ser Cys Arg Arg
20 25 30
Trp Ala Leu Leu Leu Gly Ala Ala Arg Arg Thr Thr Gly Val Ala Thr
35 40 45
Asp Lys Ile Ile Ala Arg Phe Thr Val Trp Leu Arg Leu Leu Val Val
50 55 60

<210> 39004
<211> 138
<212> PRT
<213> A.fumigatus

<400> 39004
Tyr Lys Ile Asp Ala Ser Asp Asp Lys Leu Val Ser Asp Cys Lys Ser
1 5 10 15
Pro Gly Ser Ser Ser Lys Pro Gly Cys Asp Ile Gly Gly Gly Arg Ser
20 25 30
Ser Glu Ser Leu Arg Gly Asp Leu Ser Pro Ser Ser Ser Ser Arg Ser
35 40 45
Ser Asn Ser Ile Thr Phe Gly Ser Ser Phe Gly Pro Asp Thr Ile Gly
50 55 60
Ser Ser Ser Leu Lys Ser Val Ser Ala Ser Val Ser Tyr Thr Thr Val
65 70 75 80
Leu Ser Val Leu Gly Gly Gly Leu Ser Gly Cys Gly Phe Leu Ser Asn
85 90 95
Ser Gly Ala Glu Ser Asp Gly Pro Phe Ala Gly Ser Asp Cys Val Ser
100 105 110
Ser Thr Gly Lys Phe Val Ser Leu Ser Thr Pro Ser Ser Asp Gly Asp
115 120 125
Ser Lys Ser Gly Ile Met Ile Cys Gly Asn
130 135

<210> 39005
<211> 80
<212> PRT
<213> A.fumigatus

<400> 39005
Asp Glu Gly Ile Ser Asp Phe Asn Gly Phe Arg Gly Val Leu Gly Leu
1 5 10 15
Ser Phe Lys Thr Phe Phe Ser Arg Val Glu Val Leu Gly Lys Ile Ser
20 25 30
Phe Ala Ser Ser Ser Ala Ser Ser Phe Leu Phe Leu Leu Glu Leu Lys
35 40 45
Asp Ser Trp Ala Val Ala Thr Thr Val Gly Ala Asp Leu Ser Ala Arg
50 55 60
Gly Ser Phe Pro Ser Tyr Pro Trp Leu Ser Leu Phe Phe Gly Val Ile
65 70 75 80

<210> 39006
<211> 81
<212> PRT
<213> A.fumigatus

<400> 39006
Leu Leu Leu Gly Leu Ser Leu Pro Ser Phe Val Phe Lys Ile Ile Gln
1 5 10 15
Asp Leu Phe Asn Arg Leu Leu Ala Leu Ala Gly Asn Asn Asn Pro Leu
20 25 30
Lys Asn Ser Ser Ser Met Ser Pro Phe Glu Val Lys Ala Cys Asn Cys
35 40 45
Val Cys Ile Ile Asn Thr Lys Asp Pro Gly Cys Met Gly Gly Leu Arg
50 55 60
Met Leu Tyr Val Asn Thr Ser Arg Arg Asn His Thr Arg His Ile Asp
65 70 75 80
Ile

<210> 39007
<211> 660
<212> PRT
<213> A.fumigatus

<400> 39007
Ile Leu Arg Phe Ala Met Arg Gln Gly Asp Arg Pro Ser Thr Asn Ala
1 5 10 15
Lys Ser Ala Gln Glu Gln Phe Arg Thr Pro Asn Lys Pro Pro Ile Ser
20 25 30
Ser Ala Ser Thr Thr Ser Arg Ala Arg Lys Gly Thr Ala Thr Ser Lys
35 40 45
Lys Gln Ser Gly Thr Pro Thr Ser Ser Ala Thr Ala Ala Lys Pro Trp
50 55 60
Lys Gly Ser Leu Leu Ser Gly Asp Gln Pro Thr Leu Thr Gln Ile Asp
65 70 75 80
Phe Val Thr Pro Arg Thr Gln Asn Ala Glu Ser Asp Asp Asp Asp Asp
85 90 95
Leu Asp Tyr Ile Asp Lys Ala Ala Gln Asp Asn Glu Pro Asp Ser Arg

```
                100                 105                 110
Glu Val Ile Glu Ile Asp Asp Ser Ser Asp Asp Asp Ala Ser Tyr Gln
        115                 120                 125
Gln Thr Ser Tyr Ile Arg Ala Arg Arg Thr Gly Asp Ala Glu Arg Lys
    130                 135                 140
Pro Asn Ala Ala Arg Asn Ala Ser Arg Arg Met Arg Ser Thr Gly Gln
145                 150                 155                 160
Ala Gly Ser Ala Glu Lys Pro Pro Gly Arg Lys Ser Ile Glu Gly Val
                165                 170                 175
Lys Gly Ser Lys Lys Lys Thr Lys Lys Gln Gln Lys Asp Lys Thr Leu
            180                 185                 190
Thr Gln Met Asp Tyr Val Arg Arg Tyr Leu Lys Ile Glu Pro Asp Glu
        195                 200                 205
Ala Lys Leu Glu Tyr Thr Tyr Ile Thr Pro Lys Lys Ser Asp Ser Gln
    210                 215                 220
Gly Tyr Glu Gly Lys Leu Pro Arg Ala Leu Lys Ser Ala Pro Thr Val
225                 230                 235                 240
Val Ala Thr Ala Gln Glu Ser Leu Ser Ser Ser Lys Lys Arg Lys Leu
                245                 250                 255
Glu Ala Glu Glu Asp Ala Lys Glu Ile Leu Pro Arg Thr Ser Thr Leu
            260                 265                 270
Glu Lys Lys Val Leu Lys Glu Ser Pro Arg Thr Pro Arg Lys Pro Leu
        275                 280                 285
Lys Ser Glu Ile Pro Ser Ser Gln Ser Pro Glu Ser Pro Gly Val Ala
    290                 295                 300
Ile Ile Ser Ser Ser Gln Phe Arg Asn Ala Thr Arg Ser Pro Pro Asn
305                 310                 315                 320
Leu Asp Phe Ser Thr Lys Pro Thr Ser Thr Ile Lys Glu Glu Ser Pro
                325                 330                 335
Asp Leu Asn Gln Thr Asn Ala Ile Ala Ala Gln Val Ser Ile Ser Glu
            340                 345                 350
Asp Gln Leu Pro Gln Ile Met Met Pro Asp Phe Glu Ser Pro Ser Glu
        355                 360                 365
Leu Gly Val Asp Lys Glu Thr Asn Phe Pro Val Glu Glu Thr Gln Ser
    370                 375                 380
Asp Pro Ala Lys Gly Pro Ser Asp Ser Ala Pro Glu Leu Asp Lys Lys
385                 390                 395                 400
Pro His Pro Asp Lys Pro Pro Pro Ser Thr Glu Arg Thr Val Val Tyr
                405                 410                 415
Glu Thr Asp Ala Glu Thr Asp Phe Ser Asp Asp Glu Pro Ile Val Ser
            420                 425                 430
Gly Pro Asn Glu Glu Pro Asn Val Met Leu Phe Glu Asp Arg Asp Asp
        435                 440                 445
Glu Asp Gly Asp Arg Ser Pro Leu Ser Asp Ser Glu Asp Leu Pro Pro
    450                 455                 460
Pro Ile Ser His Pro Gly Leu Glu Asp Glu Pro Gly Leu Leu Gln Ser
465                 470                 475                 480
Glu Thr Asn Leu Ser Ser Glu Ala Ser Ile Leu Tyr Gln Arg Arg Gln
                485                 490                 495
Pro Ala Thr Gln Phe Pro Leu Glu Pro Ile Pro Thr Leu Ser Thr Gln
            500                 505                 510
Lys Leu Ala Glu Leu Phe Pro Arg Glu Ser Ser Thr Gln Gln Thr Thr
        515                 520                 525
Thr Glu Pro Ser Cys Thr Lys Ser Ser Ala His Lys Val Gln Ala Leu
    530                 535                 540
Ser Asp Pro Ser Phe Gln Thr Gln Thr Gln Ser Gln Thr Gln Asp Gln
```

545 550 555 560
Asp Lys Tyr Ser Thr Glu Met Ile Pro Glu Ser Ser Pro Ile Thr Trp
565 570 575
His Ala Gly Tyr Ala Ser Thr Gly Asn Ala Thr Leu Pro Gln Asn Arg
580 585 590
Ala Gln Ser Val Val Gln Val Glu Ser Ser Gln Arg Val Asp Arg Leu
595 600 605
Lys Gly Arg Val Asp Pro Asp Glu Asp Ser Cys Pro Arg Gly Ile Leu
610 615 620
Ser Arg Ser Gln Leu Leu Thr Ser Ser Val Met Glu Ser Val Pro Leu
625 630 635 640
Pro Gly Phe Trp Ile Gly Ser Gln Asp Ser Val Gly Glu Pro Tyr Ser
645 650 655
Leu Thr Asp Pro
660

<210> 39008
<211> 104
<212> PRT
<213> A.fumigatus

<400> 39008
Gln Asp Ile Met Ala Gly Ala Asn Val Asp Glu Glu Glu Glu Val Ala
1 5 10 15
Trp Asp Asp Asp Ser Asp Asp Asp Thr Asp Ser Pro Ser Thr Pro Gln
20 25 30
Val Lys Thr Asn Asn Thr Thr Gln Ile Pro Thr Val Asp Lys Asn Lys
35 40 45
Leu Leu Lys Pro Asp Glu Pro Arg Arg Ser Asn Asp Gln Gln Ser Gln
50 55 60
Pro Asp Ser Glu Ser Ser Tyr Asp Leu Val Ser Gly Asn Thr Ser Arg
65 70 75 80
Ala Pro Gly Ser Pro Lys Glu Lys Ser Pro Thr Thr Ala Ala Lys Asp
85 90 95
Asp Asp Ser Asp Glu Asp Trp Glu
100

<210> 39009
<211> 341
<212> PRT
<213> A.fumigatus

<400> 39009
Leu Arg Tyr Gln Leu Ala Lys Lys Thr Met Asp Ile Ala Tyr Asp His
1 5 10 15
Ile Pro Glu Glu Ile Phe Ser Ser Asn Glu Ser Ser Lys Lys Lys Ala
20 25 30
Ser Gln Asp Asp Ser Lys Thr Ile Arg Ser Ile Val Asp Leu Asn Thr
35 40 45
Glu Leu Gln Glu Thr Phe Arg Ala Phe Ser Ala Ser Pro Trp Gly Ile
50 55 60
Lys Ile Gly Gly Leu Trp Asp Asn Val Arg Lys Gln Gly Glu Ser Tyr
65 70 75 80
Tyr Glu Gly Ala Arg Gln Glu Tyr Ala Ala Ala Ser Glu Glu Ser Ala
85 90 95
Lys Gly Leu Ser Asp Leu Lys Glu Thr Ile Val Gly Arg Thr Arg Gly

```
            100                 105                 110
Leu Ser Leu Ser Thr Ala Phe Thr Ser Ala Pro Ser Ala Arg Ser Lys
        115                 120                 125
Asp Glu Thr Pro Thr Pro Thr Ala Ser Arg Ala Gly Glu Ser Gln Glu
    130                 135                 140
Glu Gly Thr Ser Asp Ala Gly Ala Ser Glu Gly Phe Leu Thr Arg Ile
145                 150                 155                 160
Lys Ala Glu Ala Ala Arg Arg Leu Lys Glu Ile Glu Lys Ala Glu Glu
                165                 170                 175
Ala Ala Asp Glu Ala Ile Leu Arg Phe Gly Met Thr Ile Gly Gln Lys
            180                 185                 190
Leu Arg Glu Ala Val Ser Ile Val Pro Pro Asp Ala Glu Ser Ser Asn
        195                 200                 205
Met Ile Leu Phe Glu Ser Lys Asp Ala Glu Gly Lys Arg Val Ile His
    210                 215                 220
Ala Thr Arg Phe Glu Ala Gln Leu His Val Ile His Ser Asn Leu Glu
225                 230                 235                 240
Ser Phe Thr Lys Asp Pro Val Ser Asp Lys Trp Ala Ala Phe Lys Glu
                245                 250                 255
Glu Phe Asn Val Asp Asn Lys Thr Asp Ala Ile Ala Val Asp Leu Glu
            260                 265                 270
Lys Tyr Pro Glu Leu Arg Ser Ala Met Glu Lys Leu Val Pro Glu Gln
        275                 280                 285
Val Gly Tyr Ala Thr Phe Trp Ser Arg Tyr Tyr Phe Leu Arg Leu Val
    290                 295                 300
Ile Glu Thr Glu Glu Gln Lys Arg Lys Glu Leu Leu Lys Gly Leu Leu
305                 310                 315                 320
Leu Val Ser Pro Pro Cys Leu Phe Thr Gly Lys Ser Asp Lys Ile Ser
                325                 330                 335
Trp Gln Ala Pro Thr
            340
```

<210> 39010
<211> 487
<212> PRT
<213> A.fumigatus

<400> 39010

```
Phe Leu Glu Asp Arg Asp Glu Ile Glu Ile Ser Glu Leu Thr Ala Arg
1               5                   10                  15
Thr Ala Asp Glu His Met Pro Arg Asn Val Gln Asp Phe Lys Asp His
            20                  25                  30
Pro Ile Tyr Ala Ile Glu Arg Gln Leu Arg Arg Asn Glu Val Val Phe
        35                  40                  45
Pro Lys Arg Val Ile Gly Gln Val Ser Leu Gly Lys Ser Gly Ser Lys
    50                  55                  60
Asp Gln Val Leu Val Pro Val Tyr Arg Arg Ser Asp Val His Val Val
65                  70                  75                  80
Arg Ser Ala Asp Lys Trp Tyr Arg Leu Gly Arg Asp Ile Lys Ile Gly
                85                  90                  95
Glu Gln Pro Leu Lys Arg Ile Arg Val Asn Arg Asn Lys Asp Ala Gly
            100                 105                 110
Phe Ser Glu Asp Glu His Asp Asn Glu Ser Gly Met Glu Ile Pro Leu
        115                 120                 125
Tyr Ala Tyr Phe Gln Thr Glu Val Tyr Thr Pro Pro Pro Val Val Gln
    130                 135                 140
```

```
Gly Lys Val Pro Lys Asn Ser Tyr Gly Asn Leu Asp Val Tyr Val Pro
145                 150                 155                 160
Ser Met Val Pro Pro Gly Gly Val His Ile Lys His Pro Gln Ala Ala
                165                 170                 175
His Ala Ala Arg Val Leu Gly Ile Asp Tyr Ala Asp Ala Val Thr Gly
            180                 185                 190
Phe Asp Phe Lys Gly Arg His Gly Thr Ala Val Phe Gln Gly Ile Val
        195                 200                 205
Val Ala Ser Glu Cys Gln Glu Ala Val Glu Glu Val Leu Asp Tyr Leu
    210                 215                 220
Glu Asp Glu Arg Arg Gln Thr Glu Ser Gln Glu Lys Ser Arg Glu Thr
225                 230                 235                 240
Leu Arg Leu Trp Lys His Phe Leu Leu Lys Leu Arg Ile Ala Glu Arg
                245                 250                 255
Val Lys Ser Tyr Thr Ile Glu Gly Glu Glu Ser Ala Asp Glu Ile Leu
            260                 265                 270
Glu Lys Tyr Glu Asp Pro Gly Glu Ala Gly Gly Gly Phe Ile Pro Lys
        275                 280                 285
Pro Glu Gln Glu Met Ala Asp Gly Gly Gln Phe Ala Thr Cys Gln Arg
    290                 295                 300
Ser Met Gln Leu Glu Gly Arg Gly His Thr Tyr His Ile Val Ser Thr
305                 310                 315                 320
Asn Asn Gly Gly Pro Gly Ile Gly Ala His Gly Asp Gly Leu Gln Ser
                325                 330                 335
Asp Glu Ser Ala Ser His Ile Glu Ala Ile Ser Val Asn Pro Ser Glu
            340                 345                 350
Thr His Ile Pro Lys Ala Ser Arg Arg Pro Arg Tyr Ser Leu Ile Val
        355                 360                 365
Val Pro Asn Lys Lys Ala Asn Asn Asn Glu Asp Gly Thr Ser Gln Arg
    370                 375                 380
Gln Pro Gln Pro Gln Ser Glu Pro Thr Pro Glu Ile Val Glu Leu Glu
385                 390                 395                 400
Pro Ala Ala Glu Ala Gln Ser Val Gln Arg Ser Gly Glu Thr Gly His
                405                 410                 415
Leu Gly Ser Ser Glu Ile Pro Ile Met Val Asp Ser Ser Thr Thr Gly
            420                 425                 430
Gly Ser Arg Ser Ala Ser Val Glu Val Leu Ser Arg Thr Ala Ser Gln
        435                 440                 445
Thr Gln Pro Gln Thr Pro Thr Pro Glu Glu Met Asp Glu Ser Ser Gly
    450                 455                 460
Val Asp Asp Asn Gly Ser Leu Leu Ser His Asp Pro Glu Asp Glu Asp
465                 470                 475                 480
Ala Ile Pro Glu Trp Leu Val
                485
```

<210> 39011
<211> 151
<212> PRT
<213> A.fumigatus

<400> 39011

```
Pro Val Gly Phe Ser Cys Trp Tyr Val Ser His Arg Pro Gly Tyr Arg
1               5                   10                  15
Asp Gln Pro Ile Ala Arg Asp Glu Gln Glu Ser Asn Ala Asp Arg Asn
            20                  25                  30
Arg Val Gln Val Pro Gln Leu Ile Glu Asn Tyr Cys Asn Gly Asn Ala
```

```
        35                  40                  45
Glu Ala Ile Ser Leu Leu Phe Leu Phe Val Trp Phe Ile Gly Asp Ile
    50                  55                  60
Thr Asn Leu Ile Gly Gly Ala Trp Ala Gly Leu Val Pro Val Ile Val
65                  70                  75                  80
Ala Ile Ala Val Tyr Phe Cys Ile Ala Asp Gly Val Leu Ile Ala Gln
                85                  90                  95
Cys Leu Tyr Tyr Lys Ser Arg His Ala Arg Arg Glu Ser Leu Arg Arg
            100                 105                 110
Arg Arg Arg Ser Ser Thr Val Thr Pro Asp Pro Thr Thr Pro Leu Leu
        115                 120                 125
Gly Pro Ser Ile Gln Arg Tyr Pro Gly Thr Gly Ser Gly Phe Ala Thr
    130                 135                 140
Pro Ile Tyr Asn Val Ala Ala
145                 150
```

<210> 39012
<211> 377
<212> PRT
<213> A.fumigatus

<400> 39012

```
His Arg Val Ser Ser Ser Ser Ala Thr Arg Ser Trp Met Ser Ser Arg
1               5                   10                  15
Ala Ile Arg Lys Leu Gln Lys Leu Arg Glu Gln Glu Leu Gln Gln Ala
            20                  25                  30
His Leu Gln Ala Glu Gln Asp Asn Asp Glu Ser Asp Glu Tyr Glu Pro
        35                  40                  45
Val Ile Arg Pro Ser Arg Pro Lys Leu Asn Ala Phe Asp Leu Leu Asn
    50                  55                  60
Thr Gly Asp Asp Gly Asp Glu Glu His Glu Ser Asp His Asp Ile Glu
65                  70                  75                  80
Glu Thr Val Thr His Leu Ala Glu Asp Val Pro Ala Arg Val Lys Ser
                85                  90                  95
Ala Asp Ser Ser Lys Lys Lys Lys Lys Lys Asn Lys Lys Lys Lys Ala
            100                 105                 110
Ala Val Ala Lys Val Thr Ala Thr Gly Gly Ala Pro Cys Ala Gln Ser
        115                 120                 125
Asp Asp Glu Leu Asp Glu Ile Asp Arg Ala Leu Lys Glu Leu Ala Val
    130                 135                 140
Glu Ser Lys Gly Thr Asp Ser Gln Lys Ala Ala Ala Val Pro Pro Glu
145                 150                 155                 160
Asn Val Arg Gly Ala Ser Phe Pro Arg Thr Pro Glu Glu Leu Leu Ser
                165                 170                 175
Ile Glu Pro Lys Phe Leu Asn Ala Met Asn Glu Met Arg Arg Leu Phe
            180                 185                 190
Gly Asn Val Val Leu Glu Ser Phe Asp Glu Glu Thr Gly Thr Gly Arg
        195                 200                 205
Arg Arg Asp Arg Asn Arg Glu Met Val Asp Met Gly Arg Ala Leu Thr
    210                 215                 220
Gly Arg Tyr Ser Pro Ala Ser Lys Gly Leu Ser Leu Ala Gly Thr Thr
225                 230                 235                 240
Gln Arg Arg Asn Val Leu Met Gln Gly Lys Asp Glu Trp Pro Arg Ala
                245                 250                 255
Pro Ser Gly Gly Leu Gly Met Glu Leu Val Glu Lys Leu Pro Ser Gly
            260                 265                 270
```

```
Ala Thr Lys Tyr Gln Ile Val His Asn Ser Ala Tyr Thr Asp Val Gln
        275                 280                 285
Arg Gln Phe Asp Met Cys Val Glu Ser Met Asp Pro Gln Arg Met Ile
    290                 295                 300
His Leu Leu Gln Tyr Asn Pro Tyr His Ile Ser Thr Leu Leu Gln Val
305                 310                 315                 320
Ser Glu Ile Ala Lys His Gln Gly Asp His Ala Val Ser Ala Asp Leu
                325                 330                 335
Leu Glu Arg Ala Leu Phe Asn Ile Gly Arg Ser Ala His Ser Ser Phe
            340                 345                 350
Gly Asn Arg Leu Lys Glu Ser Gln Ala Lys Leu Asp Phe Val His Met
        355                 360                 365
Ala Asn Arg Glu Leu Trp Leu Val Gly
    370                 375
```

<210> 39013
<211> 375
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (12),(14),(32)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39013

```
Arg Tyr Ile Ala Ile Trp Glu Met Lys Gly Thr Xaa Arg Xaa Ala Tyr
1               5                   10                  15
Glu Trp Ala Lys Leu Leu Leu Ser Leu Asn Asp Asp Asp Pro Tyr Xaa
            20                  25                  30
Ile Arg Leu Leu Ile Asp His Leu Ala Leu Arg Gly Arg Glu Tyr Ala
        35                  40                  45
His Phe Val Asp Leu Cys Ala Gln Thr Arg Leu Ser Glu Asp Trp Ala
    50                  55                  60
Pro Leu Pro Asn Ile Gln Cys Ser Leu Ala Leu Ala Tyr Leu Arg Leu
65                  70                  75                  80
Asn Lys Pro Lys Glu Cys Arg Gln Gln Leu Arg Arg Ala Met Ser Arg
                85                  90                  95
Tyr Pro Trp Val Phe Cys Lys Leu Ala Gln Glu Leu Asp Ile Gln Pro
            100                 105                 110
Met Pro Lys Arg Ile Trp Gly Lys Met Pro Pro Thr Asp Ala His Glu
        115                 120                 125
Leu Leu Thr Glu Leu Tyr Ile Ala Arg Ala Lys Asp Leu Trp Asn Thr
    130                 135                 140
Pro Glu Val Val Ser Leu Ile Val Glu Ile Ala Asp Thr Leu Pro Glu
145                 150                 155                 160
Glu Glu Glu Pro Ile Glu Pro Pro Glu Ile Thr Leu Asp Ile Ala Arg
                165                 170                 175
His Val Val Leu Ser Asp Ile Pro Arg Val Thr Thr His Leu Pro Gly
            180                 185                 190
Arg Phe Val Ser Gly Arg Ile Ser Ala Ser Asp Pro Leu Pro Pro Tyr
        195                 200                 205
Asp Ser Glu Ala His Arg Gln Gln Ser Asp Pro Thr Pro Ser Tyr Leu
    210                 215                 220
Ala Gln Met Pro Glu Val Gly Arg Pro Gln Trp Leu Arg Asp Leu Leu
225                 230                 235                 240
```

```
Asp Gln Leu Asn Asn Gly Ala Leu His Phe Pro Arg Phe Arg Gly Gly
                245                 250                 255
Asp Asn Glu Glu Ile Arg Asp Asp Asp Leu Ser Asp Tyr Asp Gln Gly
            260                 265                 270
Glu Ala Gly Gly Glu Arg Arg Arg Pro Val Ala Asp Gln Gly Ala Ser
        275                 280                 285
Leu Glu Gln Trp Leu Leu Gly Asp Gly Met Gln Ser Leu Gln Ala Phe
    290                 295                 300
Leu Asn Gln Tyr Gly Val Asp Arg Gly Asn Trp Gly Asp Val Val Asp
305                 310                 315                 320
Tyr Ser Pro Leu Thr Glu Tyr Leu Asp Gly Leu Asp Ala Val Gln Pro
                325                 330                 335
Asp Glu Ala Arg Gln Glu Leu Leu His Gly Arg Ile Arg Glu Val Met
            340                 345                 350
Gly Asp Met Val Val Asp Met Leu Glu Asn Glu Leu Glu Leu Gln Gln
        355                 360                 365
Tyr Asp Asp Glu Asp Glu Val
    370                 375
```

<210> 39014
<211> 167
<212> PRT
<213> A.fumigatus

<400> 39014

```
Cys Ala Asp Pro Ser Ser Pro Ala Val Lys Thr Glu Gln Arg His Leu
1               5                   10                  15
Pro Leu Ser Ala Gly Val Val Val Arg Arg Leu Ser Arg Arg Ser Glu
            20                  25                  30
Arg Ile Gly Phe Cys Arg Leu Glu Thr Asn Ser Asp Val Ser Ser Met
        35                  40                  45
Thr Lys Pro Gly Ser Ser Ala Ser Ser Phe Ser Ala Ser Ile Gly Val
    50                  55                  60
Cys Asp Ser Ser Leu Ser Cys Arg Ala Ile Ser Ser Gly Arg Thr Phe
65                  70                  75                  80
Cys Arg Phe Leu Lys Ala Ala Leu Leu Trp Arg Val Arg Glu Ala Cys
                85                  90                  95
Arg Ser Ser Ser Ser Thr Lys Asp Thr Phe Ser Leu Leu Ser His Phe
            100                 105                 110
Arg Gly Ala Asp Ala Gly Thr Pro Leu Leu Ala Ser Thr Ser Ile Ala
        115                 120                 125
Pro Phe Cys Ala Asp Ser Val Val Glu Asn Ile Ser Ser Ser Ser Thr
    130                 135                 140
Gly Leu Cys Leu Val Ala Leu Thr Phe Phe Phe Phe Gly Phe Leu Ile
145                 150                 155                 160
Leu Ile Ser Leu Thr Ser Met
                165
```

<210> 39015
<211> 291
<212> PRT
<213> A.fumigatus

<400> 39015

```
Val Ala Tyr Pro Tyr Arg Ser Asp Lys Phe Pro Met Ile Ser Glu Ala
1               5                   10                  15
```

```
His Glu His Thr Gln Ala Thr Val Thr Leu Leu Asn Glu Ala Pro Ser
            20                  25                  30
Gln Glu Leu Arg Asn Asn Thr Asp Ile Ser Ser Phe Ser Gly Asp Phe
        35                  40                  45
Pro Ile Cys Thr Asp Leu Asn Gly Pro Ile Ala Pro Phe Cys Leu Pro
    50                  55                  60
Lys Asp Gly Ala Asp Val Thr Ala Asp Ala Thr Tyr Tyr Val Thr Trp
65                  70                  75                  80
Asn Ala Asp Phe Tyr Pro Leu Asn Ala Thr Ile Thr Ile Glu Leu Arg
                85                  90                  95
Tyr Ala Asn Ser Ser Gln Gly Asp Ser Ala Phe Thr Ser Glu Lys Thr
            100                 105                 110
Asp Asn Ser Tyr Gly Tyr Ile Ser Leu Pro Met Gln Lys Glu Trp Leu
        115                 120                 125
Gln Gly Lys Pro Tyr Asn Ala Leu Thr Leu Tyr Ile Ile Glu Leu Asp
    130                 135                 140
Pro Thr Ser Gly Ser Arg Ala Ser Ala Arg Gln Gly Pro Thr Val Ile
145                 150                 155                 160
Leu His Pro Lys Pro Val Glu His Tyr Lys Pro Ser Pro Arg Thr Pro
                165                 170                 175
Phe Asn Arg Thr Ala Leu Leu Ile Gly Leu Pro Val Ser Leu Gly Val
            180                 185                 190
Val Ile Ala Ala Val Ala Gly Leu Ala Phe Gly Met Arg Lys Ser Arg
        195                 200                 205
Lys Thr Gly Leu Arg Asp Val Val Ser Ala Arg Gly Arg Ser Tyr Gly
    210                 215                 220
Ile Gly Lys Ser Lys Asn Lys Arg Leu Gly Thr Lys Arg Glu Ile Asn
225                 230                 235                 240
Gly Pro Asp Ser Phe Ala Ala Leu Asn Lys Tyr Arg Glu Asp Ser Gly
                245                 250                 255
Glu Gly Phe Ser Glu Phe Glu Gly Ser Glu Lys Ser His Gly Leu Glu
            260                 265                 270
Arg Ser Gly Ser Phe Ala Cys Arg Gln Glu Val Ser Arg Leu Lys Thr
        275                 280                 285
Trp Ser Gly
    290
```

<210> 39016
<211> 149
<212> PRT
<213> A.fumigatus

```
<400> 39016
Lys Met Arg Val His Arg Asp Leu Ile Ala Asn Tyr Leu Thr Ser Lys
1               5                   10                  15
Glu Ser Leu Leu Leu Phe Ser Thr Asp Pro Asn Ser Pro Asn Leu Gly
            20                  25                  30
Tyr Leu Asn Cys Glu Ser Asp Gln Leu Leu Cys Ser Thr Trp Ser Ala
        35                  40                  45
Gly Ala Pro Ser Val Trp Tyr Phe Glu Val Pro Gln Ala Gln Leu Gly
    50                  55                  60
Glu Ser Gln Ala Ala Thr Pro Leu His Val Val Tyr Leu Asn Ser Thr
65                  70                  75                  80
Thr Val Thr Ser Gln Asp Ile Tyr Lys Ile His Ser Glu Lys Thr Tyr
                85                  90                  95
Lys Lys Glu Pro Ala Tyr Glu Gly Ala Leu His Pro Thr Asp Gly Trp
```

```
            100                 105                 110
Leu Ala Gln Asn Asn Leu Leu Val Pro Leu Gly Tyr Ile Ile His Gly
        115                 120                 125
Phe Ser Val Ile Pro Ser Trp Leu Phe Met Ile Phe Ile Ser Phe Ala
    130                 135                 140
Ser Arg Ser Leu Met
145
```

<210> 39017
<211> 107
<212> PRT
<213> A.fumigatus

<400> 39017

```
His Asp Thr Leu Asn Ile Gly Lys Ile Ala Ala Gln Cys Ser His Ala
1               5                   10                  15
Thr Leu Ala Cys Tyr Lys Tyr Leu Ile Ala His Asn Pro Gln Ser Pro
            20                  25                  30
Ile Leu Arg Arg Trp Glu Gln Gln Gly Gln Ala Lys Ile Ala Leu Gln
        35                  40                  45
Thr Lys Ser Glu Glu Glu Leu Gln Leu Leu His Ala Gln Ala Met Ser
    50                  55                  60
Leu Gly Leu Cys Ala Arg Val Ile Gln Asp Ala Gly Arg Thr Gln Ile
65                  70                  75                  80
Ala Ser Gly Ser Arg Thr Val Leu Gly Val Leu Gly Pro Lys Ser Val
                85                  90                  95
Val Asp Gln Val Thr Gly His Leu Lys Leu Leu
            100                 105
```

<210> 39018
<211> 456
<212> PRT
<213> A.fumigatus

<400> 39018

```
Tyr Arg Leu Ile Cys Asn Ser Pro Asn Met Ala Asp Ala Leu Ser Ile
1               5                   10                  15
Glu Gln Asn Asn Lys Ile Arg Val Ala Leu Gly Leu Lys Pro Leu Pro
            20                  25                  30
Val Pro Gly Ala Asp Ala Thr Ser Gly Arg Val Phe Lys Glu Thr Arg
        35                  40                  45
Glu Gly Ser Ala Ser Glu Glu Asp Ala Gly Ser Thr Leu Glu Ser Arg
    50                  55                  60
Gln Ala Leu Ala Ser Glu Asn Trp Lys Lys Leu Gln Glu Glu Ala Glu
65                  70                  75                  80
Ala Lys Arg Arg Arg Glu Ala Lys Asn Ala Ala Ile Lys Lys Ala Arg
                85                  90                  95
Asp Ala Ala Gln Arg Ala Arg Ile Leu Glu Gly Pro Thr Leu Gly Glu
            100                 105                 110
Ser Gly Asp Ala Asp Met Asp Thr Lys Thr Trp Leu Leu Gln Ala Lys
        115                 120                 125
Lys Arg Gln Lys Lys Ile Glu Lys Glu Arg Ala Leu Lys Leu Ala Gln
    130                 135                 140
Glu Leu Glu Glu Arg Glu Arg Ala Ala Glu Tyr Ser Thr Ala Asp Leu
145                 150                 155                 160
Ala Gly Leu Lys Val Gly His Glu Ile Gly Glu Phe Glu Ala Gly Glu
```

```
                165                 170                 175
Glu His Val Leu Thr Leu Lys Asp Thr Thr Ile Asp Glu Asn Glu Glu
            180                 185                 190
Glu Gly Asp Glu Leu Glu Asp Val Asn Leu Arg Glu Lys Glu Lys Val
        195                 200                 205
Ala Glu Arg Leu Glu Leu Lys Lys Arg Lys Pro Val Tyr Asp Pro Thr
    210                 215                 220
Glu Glu Asn Thr Gly Ile Leu Ala Gln Tyr Asp Glu Glu Ile Glu Gly
225                 230                 235                 240
Lys Lys Arg Lys Arg Phe Thr Leu Asp Ala Gln Gly Ser Thr Val Glu
                245                 250                 255
Glu Arg Glu Ala Lys Arg Gln Glu Val Ser Asp Arg Leu Lys Gln Asn
            260                 265                 270
Leu Val Ser Leu Asp Leu Gly Ala Ile Glu Thr Thr Pro Val Ser Asp
        275                 280                 285
Tyr Met Asp Val Ser Glu Ile Lys Ile Lys Lys Pro Lys Lys Lys Lys
    290                 295                 300
Val Lys Ala Thr Arg Gln Arg Pro Val Asp Glu Asp Asp Ile Phe Ser
305                 310                 315                 320
Thr Thr Glu Ser Ala Gln Asn Gly Ala Met Glu Val Asp Ala Ser Asn
                325                 330                 335
Gly Val Pro Ala Ser Ala Pro Arg Lys Trp Glu Ser Ser Glu Asn Val
            340                 345                 350
Ser Phe Val Asp Asp Asp Asp Leu Gln Ala Ser Leu Thr Arg Gln Arg
        355                 360                 365
Arg Ala Ala Phe Lys Lys Arg Gln Lys Val Arg Pro Glu Asp Ile Ala
    370                 375                 380
Arg Gln Leu Arg Glu Glu Ser Gln Thr Pro Met Asp Ala Glu Asn Glu
385                 390                 395                 400
Glu Ala Glu Glu Pro Gly Leu Val Ile Asp Glu Thr Ser Glu Phe Val
                405                 410                 415
Ser Asn Leu Gln Lys Pro Ile Leu Ser Glu Arg Arg Glu Arg Arg Arg
            420                 425                 430
Thr Thr Thr Pro Ala Glu Ser Gly Arg Cys Arg Cys Ser Val Phe Thr
        435                 440                 445
Ala Gly Leu Glu Gly Ser Ala His
    450                 455
```

<210> 39019
<211> 157
<212> PRT
<213> A.fumigatus

<400> 39019

```
Leu Thr Arg Val Met Thr Ala Ser Ser Ile Met Arg Phe Ile Gln Ala
1               5                   10                  15
Leu Val Ile Leu Pro Ala Leu Ala Ala Ala Gln Asn Gln Val Pro Leu
            20                  25                  30
Ala Asp Arg Val Gln Gly Trp Phe Asn Lys Ala Lys Ser Tyr Leu Pro
        35                  40                  45
Thr Ala Thr Pro Val Val Pro Thr Val Glu Lys Val Val Glu Gln Lys
    50                  55                  60
Val Gln Gln Lys Ala Val Thr Val Thr Pro Phe Asn Met Ser Asn Trp
65                  70                  75                  80
Gln Ser Leu Leu Glu Pro Ser Ser Glu Pro Gln Asp Trp Leu Leu Tyr
                85                  90                  95
```

```
Ile Thr Gly Gly Asn Lys Thr Cys Phe Gly Arg Cys Gly Asn Ala Asp
            100                 105                 110
Lys Ala Phe Asn Val Arg Thr Gln Met Gly Ser Arg Arg Cys Glu Tyr
        115                 120                 125
Thr Glu Thr Leu Leu Leu Ile Ile Ser Leu Arg Arg Asn Leu Phe Ser
    130                 135                 140
Cys Ser Pro Gln Thr Leu Thr Pro Leu Ile Leu Val Ile
145                 150                 155
```

<210> 39020
<211> 158
<212> PRT
<213> A.fumigatus

<400> 39020

```
Leu Ile Asp Lys Gln Leu Trp Arg Leu Pro Glu Leu Arg Ser Asp Leu
1               5                   10                  15
Ser Leu Pro Leu Gly Gln Ala Arg Thr Leu Met Glu Asn Thr Gln Thr
            20                  25                  30
Ala Ser Pro Thr Leu Ala Leu Pro Lys Ile Thr Lys Met Ala Glu Leu
        35                  40                  45
Asp Arg Val Pro Pro Ser Thr Thr Ala Tyr Val Ile Ala Thr Ala Ile
    50                  55                  60
Leu Ala Gly Ile Thr Gly Tyr Phe Ile Gly Gln Gly Ala Ser Leu Gly
65                  70                  75                  80
Leu Phe Ser Trp Ala Lys Glu Lys Glu Gly Trp Pro Asn Ser Tyr Asn
                85                  90                  95
Val Lys Ile Pro Gln His Ser Ser Asp Glu Glu Gly Glu Asn Tyr Glu
            100                 105                 110
Gly Asp Ser Glu Glu Glu Gly Asp Gly Gly Glu Leu Ala Asn Phe Asp
        115                 120                 125
Ala Ser Asn Glu Glu Val Lys Leu Val Leu Val Val Arg Thr Asp Leu
    130                 135                 140
Gly Met Thr Lys Gly Lys Met Ile Pro Leu Cys Phe Pro Ala
145                 150                 155
```

<210> 39021
<211> 65
<212> PRT
<213> A.fumigatus

<400> 39021

```
His Leu Ser Asn Gln Ser Ala Gln Lys Leu Pro Met Val Tyr Ser Pro
1               5                   10                  15
Glu His Gly Thr Cys Ile His Tyr His Met Gln Pro Ser Tyr Trp Asn
            20                  25                  30
Gly Leu Lys Leu Ile Ser Asp Gln Ala Val Ala Gly Lys Ile Ile Thr
        35                  40                  45
Val Thr Ser Arg Phe Ile Pro Arg Gln Asp His Ser Ile Gly Gly Leu
    50                  55                  60
Gly
65
```

<210> 39022
<211> 98
<212> PRT

<213> A.fumigatus

<400> 39022
Ile Val Ile Cys Trp Leu Arg Ile His Gln Cys Pro Tyr Ser Glu Ala
1 5 10 15
Met Thr Arg Thr Thr Ser Val Glu Asp Val Lys Phe Glu Ile Pro Thr
20 25 30
Trp Asp Asn Ser Asn Val Asp Val Ala Asp Gly Ser Gly Arg Pro Glu
35 40 45
Ser Ser Thr Ser Gly Asp Thr Ile Arg Pro Lys Gly Arg Ile Arg Arg
50 55 60
Ser Met Thr Ala Cys Asn Thr Cys Arg Lys Leu Lys Thr Arg Cys Asp
65 70 75 80
Leu Asp Pro Arg Gly His Ala Cys Arg Arg Cys Leu Ser Leu Arg Phe
85 90 95
Val Pro

<210> 39023
<211> 146
<212> PRT
<213> A.fumigatus

<400> 39023
Thr Cys Phe Pro Arg Arg Ile Glu Cys Lys Leu Pro Glu Thr Ala Glu
1 5 10 15
Arg Phe Gln Asp Asn Ala Ser Met Trp Ser Asp Ala Thr Ala Ala Ile
20 25 30
Pro Ser Ile Glu Glu Arg Leu Ile Ser Leu Glu Arg Ser Met Thr Glu
35 40 45
Met Thr Ser Met Met Arg Arg Met Met Asp Arg Ser Pro Ser Ile Ser
50 55 60
Gly Ser Ser Val Ser Met Leu Thr Arg Ser Gly Ile Thr Asp Glu Thr
65 70 75 80
Ala Ser Ile Glu Gly Ser Gln Ser Ser Ser Phe Ala Pro Arg Pro Ile
85 90 95
Arg Leu Leu Gln Asp Leu Gln Ser Asp Phe Thr Gly Glu Ala Asn Val
100 105 110
Leu Pro Ala Asp Ser Arg Ser Leu Gly Glu Leu Phe Thr Lys Gly Ile
115 120 125
Ile Asp Pro Lys Leu Ser Gln Lys Leu Ile Gln Leu Tyr Ala Thr Phe
130 135 140
Leu Val
145

<210> 39024
<211> 478
<212> PRT
<213> A.fumigatus

<400> 39024
Thr Tyr Thr Glu Thr Phe Ser Leu Ile Thr His Phe Leu Phe Phe Ser
1 5 10 15
Ser Arg Ala Pro Asp Asn Thr Lys Pro Cys Ser Leu Thr Gly Glu Ser
20 25 30
Glu Ser Arg Pro Arg Ala Ile Glu Leu Glu Asp Thr Glu Asp Met Arg

```
        35                  40                  45
Ser Gln Gly Asn Met Ser Asp Arg Leu Gly Val Glu Val Asp Cys His
    50                  55                  60
Ser Leu Gly Ser Asn Glu Cys Pro Ser Met Gly Ser Ser Phe Ser Pro
65                  70                  75                  80
Leu Glu Ser Pro Thr Pro Thr Pro Thr Ser Ile Tyr Ser Gln Gly Ser
                85                  90                  95
Leu Ala Ser Pro Ser Trp Pro Glu Asn Gly Ser Tyr Pro Gly His Ala
            100                 105                 110
Tyr Asp Arg Gly Thr Gly Ser Thr Pro Ile Arg Gly His Phe Arg Leu
        115                 120                 125
Ala Ser Met Pro Ser His Glu Asn Met Gly Leu Pro Pro Tyr Ser Ser
    130                 135                 140
Leu Asp Gly Gln Asp Arg Met Ala Val Thr Asp Phe Leu Pro Ser Tyr
145                 150                 155                 160
Asp Glu Asn Ala Asp Gln Phe Trp Leu Pro Ser Asp Val Pro Lys Thr
                165                 170                 175
Tyr Asp His His Val His Gly Leu Pro Cys Pro Pro Ser Met His Gln
            180                 185                 190
Tyr Pro Pro Met Leu Arg Ser Asn Tyr Arg His His Pro Ala Pro Tyr
        195                 200                 205
Phe Pro Glu Ser Ala Thr Asn Pro Cys Leu Ser Arg Pro Ile Phe His
    210                 215                 220
His Gln Pro Glu Arg Leu Pro Pro Ser Leu Ser Met Ser His Met Met
225                 230                 235                 240
Pro Trp Met Gly His Thr Glu Ser Ile Ala Pro Glu Thr Ile Ala Pro
                245                 250                 255
Ser Gln Val Ala Pro Val Thr Pro Pro Pro Ser Tyr Thr Asp Phe Ser
            260                 265                 270
Asn Ser Ile Asn Thr Phe Lys Thr His Ser Pro Asp Thr Pro Ile Arg
        275                 280                 285
Ser Cys Ser Leu Gly Thr Val Ser Gly Ala Asp Thr Pro Leu Ser Arg
    290                 295                 300
Leu Ser Gly Gly Ala Gly Glu Tyr Ile Asp Glu Cys His Gln Ser Pro
305                 310                 315                 320
Ile Tyr Arg Asp Ala Ser Gly Val Arg Leu Gln Arg Gln Pro Ser Arg
                325                 330                 335
Lys Met Ala Arg Lys Gln Pro Ser Lys Gln Ser Leu Ser Leu Glu Asn
            340                 345                 350
Leu Pro Ser Ile Ile Lys Gln Val Gln Phe Lys Cys Lys Glu Pro Gly
        355                 360                 365
Cys Lys Gly Arg Phe Lys Arg Gln Glu His Leu Lys Arg His Met Lys
    370                 375                 380
Ser His Ser Lys Glu Lys Pro His Val Cys Trp Val Pro Gly Cys His
385                 390                 395                 400
Arg Ala Phe Ser Arg Ser Asp Asn Leu Asn Ala His Tyr Thr Lys Thr
                405                 410                 415
His Ser Lys Arg Gly Gly Arg Asn Arg Tyr Val Ala Thr Leu Asp Glu
            420                 425                 430
Thr Ser Pro Asp Tyr Asn Pro Asp Tyr Arg Gly Pro Leu Thr Ala Asp
        435                 440                 445
Gly Arg Pro Met Pro Gly Gly Thr Leu Asp Glu Ser Met Pro Ser Arg
    450                 455                 460
Glu Ile Phe His His Gly Val Arg Ser Ile Arg Ala Cys Val
465                 470                 475
```

<210> 39025
<211> 62
<212> PRT
<213> A.fumigatus

<400> 39025
Arg Arg Arg Pro Leu Ser Ser Phe Phe Ile Lys Ser Thr Ser Ala Ala
1 5 10 15
Thr Arg Leu Asp Asn Ser Leu Ile His Pro Phe Leu Ser Ile Leu Leu
20 25 30
Arg Tyr Leu His Arg Ala Ser Ser Ser Ser Cys Asn Ile Val Asn Lys
35 40 45
Gly Leu Tyr Ser Asn Asn Phe Pro Leu Ser Ser Tyr Ile Leu
50 55 60

<210> 39026
<211> 66
<212> PRT
<213> A.fumigatus

<400> 39026
Pro Thr Tyr Arg Leu Ile Ile Pro Pro Phe Tyr Ile Lys Val Ser Ser
1 5 10 15
Ser Leu Ile Gly Met Ala Ser Ser Gly Phe Tyr Tyr Pro Leu Ala Ser
20 25 30
Phe Ile Lys Tyr Leu Thr Ser Tyr Tyr Leu Ser Arg Ser Tyr Tyr Tyr
35 40 45
Ser Ser Phe Thr Ser Ser Ile Ala Leu Leu Asp Leu Val Ile Lys Tyr
50 55 60
Leu Arg
65

<210> 39027
<211> 227
<212> PRT
<213> A.fumigatus

<400> 39027
His Gly Leu Leu Gln Val Leu Ile Gln His Arg Ala Ser Asp Glu Ser
1 5 10 15
Leu Arg Phe Val Glu Glu Val Phe Ser Ser Phe Gly Ser Lys Tyr Val
20 25 30
Tyr Leu Thr Gly Glu Met His Asp Arg Ile Thr Ala Asp Thr Gln Ala
35 40 45
Val Thr His Ala Ala Phe Leu Ser Met Gly Thr Ala Trp Gln Ala Asn
50 55 60
Asn Gln Phe Pro Trp Glu Met Ser Arg Trp Val Gly Gly Ile Glu Asn
65 70 75 80
Val Lys Ile Asn Ile Thr Leu Arg Ile Tyr Ser Asn Lys Trp His Val
85 90 95
Tyr Ala Gly Leu Ala Ile Leu Asn Pro Ala Ala Lys Glu Gln Ile Arg
100 105 110
Thr Tyr Ala Gln Ser Val Thr Glu Leu Tyr Lys Leu Met Ile Gly Gly
115 120 125
Gln Arg Glu Glu Leu Lys Arg Arg Val Lys Ala Ala Gly Ala Ala Val
130 135 140

```
Phe Lys Asp Gly Thr Glu Gly Gln Glu Leu Leu Leu Lys Asp Glu Val
145                 150                 155                 160
Leu Asp Arg Phe Ser Leu Ser Asn Arg Pro Arg Glu Tyr His Pro Pro
                165                 170                 175
Asn Asn His Leu Ser Leu Leu Ala Ile Val Asp Cys Trp Ser Lys Leu
            180                 185                 190
Gly Ile Val Pro Tyr Asp His Met Ile Cys Ser Thr Pro Val Ser Asp
        195                 200                 205
Ala Asn Thr Ala Ala Ala Leu Leu Thr Ser Leu His Val Glu Leu Leu
    210                 215                 220
Ile Ala Leu
225
```

<210> 39028
<211> 397
<212> PRT
<213> A.fumigatus

<400> 39028

```
Val Ile Arg Thr Leu Pro Leu Ala Thr Arg Trp Arg Pro Met Ala Ser
1               5                   10                  15
Gly Tyr Asn Ser Gly Phe Ser Gly Thr Ser Ile Gln His Arg Asp Leu
            20                  25                  30
Gly Asp Gly Arg Ser Tyr Ala Ser Gln Glu Asp Gly Ser Ala Asn Gly
        35                  40                  45
Ser Trp Ala Glu Thr Ala Ser Arg Pro Gly Arg Asn Gly Arg Ser Gln
    50                  55                  60
Ser Gly Asn Ser Ala Asn Ile Arg Pro Arg Gly Gly Ser Gly Gly Ser
65                  70                  75                  80
Leu Ala Pro Ser Ile Gly Gly Pro Gly Ser Phe Ser Ser Glu Leu Lys
                85                  90                  95
Ser Met Thr Thr Ser Arg Ser Val Thr Pro Arg Pro Asp Gly Ala Tyr
            100                 105                 110
Arg Arg Arg Gly Ser Ser Asn Val Glu Leu Asp Glu Leu Ser Ser Thr
        115                 120                 125
Glu Glu Arg Gln Ala Ala Ile Arg Asp Lys Ile Ala Lys Glu Met Lys
    130                 135                 140
Ile Lys Thr Gly Thr Glu Asn Met Leu Glu Ala Leu Leu Ala Lys Asp
145                 150                 155                 160
Pro Lys His Thr Lys Asp Gln Arg Leu Arg Val Glu Ser Glu Leu Ser
                165                 170                 175
Ser Ser Asn Arg Lys Leu Ala Glu Leu His His Glu Leu Glu Glu Glu
            180                 185                 190
Leu Leu Arg Ala Gln Ala Pro Ser Thr Pro Pro Arg Asn Arg Phe Ser
        195                 200                 205
Met Ser Phe Phe Arg Gly Ser Pro Arg Arg Ser Pro Ser Arg Asn Asn
    210                 215                 220
Asp Leu Thr Leu Asp Asp Asp Arg Leu Glu Glu Ala Glu Ala Glu Met
225                 230                 235                 240
Glu Ser Pro Thr Tyr Val Leu Gly Glu Thr Leu Gln Ala Leu Glu Ile
                245                 250                 255
Glu Gly Met Ala Pro Asp Tyr Tyr Val Glu Arg Ala Asn Ser Leu Val
            260                 265                 270
Glu Leu Phe Arg Arg His Pro Thr Leu Lys Tyr Asp Leu Ala Trp Ser
        275                 280                 285
Val Phe Gly Leu Arg Val Gln Val Met Leu Leu Ser Asp Ser Lys Glu
```

```
    290                 295                 300
Val Val Ala Ala Gly Tyr Arg Leu Thr Arg Tyr Ala Ile Ala Asp Arg
305                 310                 315                 320
Lys Ser Leu Gln Ile Ile Arg Ser Leu His Thr Asp Glu Leu Val Ile
                325                 330                 335
Leu Ser Leu Val Lys Glu Ser Lys Ala Ser Ile Glu Arg Glu Gln Ala
            340                 345                 350
Leu Lys Phe Val Arg Ala Phe Leu Asp Val Lys Asp Gly Val His Glu
        355                 360                 365
Ile Ser Arg Ala Val Val Arg Thr Ile Val Ser Ile Pro Gly Thr Pro
    370                 375                 380
Glu Asp Arg Leu Arg Asn Leu Ser Thr Met Thr Leu Arg
385                 390                 395
```

<210> 39029
<211> 152
<212> PRT
<213> A.fumigatus

<400> 39029

```
Tyr Pro Ala Arg Val Pro Pro Asn Leu Ser Phe Glu Val Asp Asp Phe
1               5                   10                  15
Glu Ser Asp Trp Glu Tyr Ser Lys Pro Phe Asp Phe Ile His Ala Arg
            20                  25                  30
Asp Leu Gln Gly Ser Val Ser Asp Tyr Asn Arg Leu Val Ala Gln Ala
        35                  40                  45
Phe Ala Asn Leu Ala Pro Gly Gly Trp Phe Glu Phe Ala Asp Ala Asp
    50                  55                  60
Leu Leu Val Cys Cys Asp Asp Glu Thr Ile Lys Glu Ala Lys Asn Met
65                  70                  75                  80
Leu Glu Val Asn Arg Leu Val Cys Asp Ala Ser Ala Arg Phe Gly Lys
                85                  90                  95
Leu Met Gly Thr Ala Lys Gln His Lys Gln Arg Leu Glu Asp Ala Gly
            100                 105                 110
Leu Val Asn Val Arg Glu Glu Ile Tyr Lys Val Gly Ser Ser Asp Tyr
        115                 120                 125
Ser Cys Ser Phe Lys Val Val Thr Asn Arg Arg His Arg Ser His Ser
    130                 135                 140
His Pro Gly Gln Arg Thr Pro Ser
145                 150
```

<210> 39030
<211> 134
<212> PRT
<213> A.fumigatus

<400> 39030

```
Arg Ser Ala Val Ile Phe Lys Gly Ser Glu Ser Ala Leu Thr Arg Asp
1               5                   10                  15
Arg Pro Leu Lys Ala Lys Thr Gly Glu Ser Val Arg Ile Phe Phe Gly
            20                  25                  30
Asn Ala Gly Pro Asn Leu Thr Ser Ser Phe His Val Ile Gly Ser His
        35                  40                  45
Phe Gln His Val Phe Arg Asp Gly Gly Val Val Asp Pro Pro Ala Arg
    50                  55                  60
Val Leu Ser Thr Val Gly Val Pro Pro Gly Gly Ala Ala Ile Val Asp
```

65 70 75 80
Leu Lys Met Ile Val Pro Gly Thr Tyr Thr Leu Val Asp His Ala Ile
85 90 95
Phe Arg Met Asp Lys Gly Ala Val Gly Tyr Leu Asn Val Ala Gly Ala
100 105 110
Pro Arg Pro Asp Ile Leu Tyr Ser Gln Met Pro Pro Glu Pro Cys Val
115 120 125
Gly Cys Lys Leu His Pro
130

<210> 39031
<211> 166
<212> PRT
<213> A.fumigatus

<400> 39031
Pro Leu Arg Gly Ser Leu Ala Pro Pro Trp Met Lys Thr Arg Leu Gly
1 5 10 15
Pro Asn His His Lys Ile Pro Val Asn Gln Cys Pro Met Thr Phe Asn
20 25 30
Pro Thr Leu Arg Asp Gly Thr Gly Thr Phe Asp Ala Asn Tyr Gly Ser
35 40 45
Leu Pro Gly Tyr Val Ser Glu Ser Gln Gly Val Asn Phe Ala Arg Pro
50 55 60
Gln Glu His Asp Pro Gln Phe Asn Ala Trp Val Ser Gln Leu Ser Ser
65 70 75 80
Arg Pro Trp Met Gln Thr Asn Glu Asn Asp Tyr Lys Phe Pro Arg Asp
85 90 95
Phe Tyr Asn Ala Leu Pro Glu Phe Arg Ser Gln Glu Phe Gln Asp Lys
100 105 110
Met Val Glu Asn Ile Ile Ala Ser Val Ala Gln Thr Arg Lys Glu Ile
115 120 125
Arg Glu Lys Val Tyr His Thr Phe His Leu Val Asp Pro Glu Leu Ser
130 135 140
Ala Arg Val Lys Arg Gly Val Glu Lys Met Asp Ala Ser Phe Lys Gln
145 150 155 160
Val Ser Leu Ser Arg Leu
165

<210> 39032
<211> 146
<212> PRT
<213> A.fumigatus

<400> 39032
Leu Arg Ser Leu Val Leu Met Arg Arg Tyr Ala Met Asp Asp Leu Thr
1 5 10 15
Leu Ala Asp Gly Asn Lys Ile Pro Lys Gly Thr Val Leu Gly Ile Pro
20 25 30
Ile Phe Gly Met Arg Asp Pro Lys Ile Tyr Val Asp Pro Asp Met Tyr
35 40 45
Asp Gly Tyr Arg Phe Gln Lys Met Arg Asp Lys Pro Gly Phe Glu Asn
50 55 60
Lys Cys Gln Leu Val Ser Thr Ser Pro Trp His Leu Gly Phe Gly His
65 70 75 80
Gly Ile His Ala Cys Pro Gly Arg Phe Leu Ala Ala Val Gln Val Lys

```
                85                  90                  95
Ile Ile Leu Cys Tyr Ile Val Ala Lys Tyr Asp Phe Lys Leu Ala Gly
            100                 105                 110
Gly Ala Pro Pro Lys Val Gln Ser Val Gly Ile Glu Leu Ile Ser Asp
        115                 120                 125
Thr Glu Ala Arg Leu Ala Val Arg Arg Arg Gln Glu Met Val Ile Gly
    130                 135                 140
Leu Glu
145
```

<210> 39033
<211> 75
<212> PRT
<213> A.fumigatus

<400> 39033

```
Leu Ser Gln Tyr Asn Ser Val Pro Leu Val Asn Tyr Ala Ser Phe Val
1               5                   10                  15
Asn Ile Ile Leu Ser Thr Glu Phe Phe Ala Gln Leu Leu Pro Asn Glu
            20                  25                  30
Ala Ile Gly Ser Thr Gly Lys Val Ser Gln Ala Tyr Cys Pro Leu His
        35                  40                  45
Ser Asp Val Ser Ser Ala Val Gly Glu Lys Cys Val Lys Val Leu Gln
    50                  55                  60
Ile Trp Gln Asn Pro Tyr Asn Ala Thr His Val
65                  70                  75
```

<210> 39034
<211> 232
<212> PRT
<213> A.fumigatus

<400> 39034

```
Leu Met Arg Ser Glu Trp His Glu Val Thr Ala Lys Ser Ser Val His
1               5                   10                  15
Asp Ile Ile Ala His Leu Ser Ala Leu Leu Phe Tyr Gly Pro Glu Leu
            20                  25                  30
Cys Ser His Lys Glu Trp Leu Glu Val Thr Asp Glu Tyr Ala Ser Val
        35                  40                  45
Gly Phe Leu Ala Ala Arg Gln Leu Arg Leu Trp Pro Pro Ile Leu Arg
    50                  55                  60
Pro Ile Ala Gln Trp Phe Leu Pro Ala Cys Arg Arg Leu Arg Tyr Leu
65                  70                  75                  80
Ala Ser Arg Thr Arg Gly Leu Ile Glu Pro Val Ile Ala Ala Arg Gln
                85                  90                  95
Lys Glu Lys Ala Ile Cys Tyr Ser His Gly Arg Gln Pro Pro Val Tyr
            100                 105                 110
Asp Asp Ala Ile Glu Trp Thr Glu Arg Ala Ala Lys Gly Arg Pro Tyr
        115                 120                 125
Asp Ala Ala Met Ser Pro Leu Leu Phe Ser Ile Asn Ala Leu His Thr
    130                 135                 140
Thr Thr Asp Leu Leu Thr Gln Val Ile Leu Asp Leu Ser Thr Gln Pro
145                 150                 155                 160
Asp Leu Ile Val Ala Leu Arg Gln Glu Ile Leu Ser Val Lys Pro Gln
                165                 170                 175
Gln Asn Gly Trp Lys Asn Ala Ser Leu Asn Gln Leu Leu Leu Met Asp
```

```
            180                 185                 190
Ser Ala Ile Lys Glu Ser Gln Arg Leu Lys Pro Thr Glu Ser Ser Met
        195                 200                 205
His Val Val Ile Tyr Asn Phe Ser Phe Ser Leu Pro Asn Thr Val Leu
    210                 215                 220
Arg Tyr His Thr Asn Cys Gly His
225                 230
```

<210> 39035
<211> 307
<212> PRT
<213> A.fumigatus

<400> 39035

```
Val Ile Ser Glu Pro His Met Ala Arg Gln Leu Val Leu Gln Arg Asp
1               5                   10                  15
Gly Gly Ile Arg Pro Tyr Ser Ile Ser His Ile Val His Ser Leu Ile
            20                  25                  30
Ser Phe Arg Arg Ser Lys Pro Arg Pro Val Leu Arg Phe Gln Ala Asn
        35                  40                  45
Phe Leu Ala Asp Gly Leu Met Leu Cys Met Gly Tyr Asn His Ser Val
    50                  55                  60
Phe Asp Gly Thr Gly Ala Gly Asn Ile Leu Glu Met Leu Ala Asp Cys
65                  70                  75                  80
Cys Arg Ala Asn Pro Asn Ser Ile Leu Ala Leu Pro Thr Asn Gly Asp
                85                  90                  95
Ile Glu Ser Glu Leu Arg Gly Leu Leu Ser Ser Pro Gly Val Ala Val
            100                 105                 110
Ala Asn Ala Ser Gln Glu Ala Tyr Ala Ile Asn Cys Ala His Thr Glu
        115                 120                 125
Val Glu Pro Glu Pro Ser Ser Ala Met Leu Tyr Cys Trp Pro Phe Leu
    130                 135                 140
Leu Ser Ser Glu Lys Ile Glu Cys Leu Gln Glu Ala Cys Asn Ser Leu
145                 150                 155                 160
Leu Pro His Ile Val Arg Leu Tyr Ser Gly Thr Gln Ser Ser Leu Ile
                165                 170                 175
Asn Gln Asp Thr Asn Trp Pro His Ile Leu Ser Ser Asn Asp Val Leu
            180                 185                 190
Thr Ala Leu Leu Ala Val Ser Ile Glu Lys Ala Arg Glu Ala Thr Gly
        195                 200                 205
Ala Leu Gly His Met Ser Arg Ser Leu Ala Met Ala Val Asn Leu Arg
    210                 215                 220
Glu Arg Leu Lys Pro Met Pro Arg His Tyr Leu Gly Asn Leu Val Thr
225                 230                 235                 240
Thr Val Trp Val Ser His His Arg Pro Ala Val Lys Asp Leu Glu Thr
                245                 250                 255
Met Val Leu Pro Val Pro Ala Cys Asn Arg His Glu Ile Asp Arg Asp
            260                 265                 270
Asp Leu Leu Trp Ile Thr His Val Ala Phe Arg Ile Arg Leu Gly Leu
        275                 280                 285
Asn Ala Ile Asn Glu Glu His Ile Arg Gly Ala His Ser Leu Ser Ala
    290                 295                 300
Gln Ser Gly
305
```

<210> 39036

<211> 124
<212> PRT
<213> A.fumigatus

<400> 39036
Thr Gln Ile Gly Lys Thr Ser Ser Leu Val Met Thr Leu Cys Gly Val
1 5 10 15
Leu Lys Asp Ile Leu Leu Val Ala Ala Ser Met Met Ile Trp Gln Thr
20 25 30
Pro Val Thr Pro Leu Gln Phe Phe Gly Tyr Ser Ile Ala Leu Ile Gly
35 40 45
Leu Val Tyr Tyr Lys Leu Gly Gly Asp Lys Ile Arg Glu Tyr Ala Gly
50 55 60
Gln Ala Asn Arg Ser Trp Ala Glu Tyr Gly Ala Asn His Pro Ala Gln
65 70 75 80
Arg Lys Ser Ile Ile Ile Gly Ala Val Val Leu Ile Phe Phe Leu Leu
85 90 95
Ile Gly Ser Met Ala Pro Ser Tyr Ala Pro Glu Ser Val Asp Lys Val
100 105 110
Lys Gly Met Leu Gly Gly Ala Thr Ala Gly Asn Ala
115 120

<210> 39037
<211> 94
<212> PRT
<213> A.fumigatus

<400> 39037
Ser His Ser Leu Asp Leu Cys Phe Tyr Phe Ser Ser Ser Phe Thr Ala
1 5 10 15
Ser Pro Leu Ala Ser Ala Arg Phe Gly Gln Ser Ser Leu Leu Arg Pro
20 25 30
Arg Pro Phe Asp Phe Lys Gln Phe Leu Ser Asp Gln Ser Gln Leu Phe
35 40 45
Thr Met Ser Asn Glu Gly Glu Lys Ala Arg Val Ser Gly Glu Val Ser
50 55 60
Arg Pro Glu Pro Thr Leu Pro Thr Val Asn Pro Ala Val Glu Lys Ser
65 70 75 80
Glu Pro Ser Lys Pro Thr Phe His Pro Ala Val Tyr Val Arg
85 90

<210> 39038
<211> 96
<212> PRT
<213> A.fumigatus

<400> 39038
His Phe Pro Ala Ile Ile Leu Thr Thr Trp His Leu Ala Phe Ala Thr
1 5 10 15
Phe Met Thr Gln Val Leu Ala Arg Thr Thr Thr Leu Leu Asp Gly Arg
20 25 30
Lys Thr Val Lys Met Thr Gly Arg Val Tyr Leu Arg Ala Ile Val Pro
35 40 45
Ile Gly Leu Phe Phe Ser Leu Ser Leu Ile Cys Gly Asn Val Thr Tyr
50 55 60
Leu Tyr Leu Ser Val Ala Phe Ile Gln Met Leu Lys Val Cys Phe Cys

65 70 75 80
Ser Asp Gln Leu Ala Ile Leu Leu Ala Ile Ile Ala Asp Asp Gly Thr
85 90 95

<210> 39039
<211> 138
<212> PRT
<213> A.fumigatus

<400> 39039
Ala Thr Thr Pro Val Ala Val Leu Leu Ala Thr Trp Ala Met Gly Met
1 5 10 15
Ala Pro Val Asn Leu Lys Val Leu Phe Asn Val Ala Val Ile Val Ile
20 25 30
Gly Val Val Ile Ala Ser Phe Gly Glu Ile Lys Phe Val Phe Ile Gly
35 40 45
Phe Leu Phe Gln Ile Gly Gly Ile Val Phe Glu Ala Thr Arg Leu Val
50 55 60
Met Val Gln Arg Leu Leu Ser Ser Ala Glu Phe Lys Met Asp Pro Leu
65 70 75 80
Val Ser Leu Tyr Tyr Phe Ala Pro Val Cys Ala Val Met Asn Gly Val
85 90 95
Thr Ala Leu Phe Val Glu Val Pro Asn Leu Thr Met Gly His Ile Tyr
100 105 110
Asn Val Gly Val Trp Thr Leu Leu Ala Asn Ala Val Val Ala Phe Leu
115 120 125
Leu Asn Val Ser Val Val Phe Leu Val Arg
130 135

<210> 39040
<211> 415
<212> PRT
<213> A.fumigatus

<400> 39040
Leu Glu Phe Tyr Ser Ser Leu Asn Arg Thr Glu Arg Asn Ser Phe Gly
1 5 10 15
Phe Arg Ile His Pro Leu Asn His Leu Arg Lys Ser Leu Ala Met Cys
20 25 30
Pro Met Leu Leu Ser Gly Leu Ala Asp Gly Pro Ala Met Val Leu Ser
35 40 45
Pro Arg Gln Glu His Ala Phe Val Gln Phe Pro Arg Gln Ser Gln Leu
50 55 60
Asp Ser Ala Ser Ala Ala Ser His Asn Ser Phe Phe Arg Asn Gly Val
65 70 75 80
His Ser Gln Ala Ser Asn Asn Val Phe Ser Ala Pro Lys Leu Ala Asn
85 90 95
Thr Ala Ala Ser Ser Ser Arg Ile Ser Arg Lys Arg Ser Arg Asp Glu
100 105 110
Ala Glu Ser Glu Glu Ala Leu Ser Ala Ser Ser Ala Pro Ala Val Ala
115 120 125
Ala Pro Ala Pro Lys Glu Glu Pro Ile Tyr Gly Glu Gly Met Thr Leu
130 135 140
Ile Asn Pro Arg Thr Gly Met Ser Leu Ser Ala Glu Ser Gln Thr Gly
145 150 155 160
Thr Trp Tyr Glu Glu Gln Leu Glu Asn Ala Ala Ala Thr Ala Ala Pro

```
                165                 170                 175
Val Ser Ser Arg Ser Leu Ala Ser Ser Ser Glu Leu His Ser Arg Lys
            180                 185                 190
Ser Gln Arg Leu Asp Pro Ser Ala Ser Arg Val Asp Asp Ile Thr Leu
        195                 200                 205
Ala His Ile Gln Arg Arg Leu His Lys Thr Thr Ala Glu Asp Asn His
    210                 215                 220
Arg Leu Leu Asn Ala Gly Ala Arg Thr Asn Pro Leu Thr Pro Asn Glu
225                 230                 235                 240
Pro Gln Val Asp Asp Ala Thr His Leu Leu Gly Ile Ser Trp Gln Arg
                245                 250                 255
Ile Ser Thr Asp Asp Val Asp Met Ala Ala Ala Val Arg Gly Trp Lys
            260                 265                 270
Lys Tyr Ile Asp Lys Gln Phe Ala Ala Tyr Leu Leu Asp Ser Gln Ile
        275                 280                 285
Leu Met Lys Asn Arg Ala Leu Asn Ala Tyr Leu Val Thr Ala Arg Pro
    290                 295                 300
Ile Thr Pro Ala Gly Pro Ala Ile Ala Pro Ala Phe Tyr Leu Phe Ser
305                 310                 315                 320
Glu Asp Leu Ser Gln Ala Gln Leu Val Ala Ser Ser Trp Glu Gln Cys
                325                 330                 335
Val His Asn Leu Arg Ser Val Pro Val Ile Phe Glu Gln Asn Gln Val
            340                 345                 350
Leu Ser Ala Ala Asp Arg Gln Cys Asn Asn Asn Ser Ser Gly Pro Gly
        355                 360                 365
Val Leu Gly Leu Asp Thr Thr Thr Glu Pro Gly Leu Pro Leu Leu Gln
    370                 375                 380
Met Met Cys Ala Gln Pro Val Gly Ser Asp Met Arg Ala Ala Gly Leu
385                 390                 395                 400
His Asn Ser Asp Gly Met Ser Ser His Glu Cys Gln Ile Arg Ile
                405                 410                 415
```

<210> 39041
<211> 90
<212> PRT
<213> A.fumigatus

<400> 39041

```
Pro Thr Thr Lys Arg Leu Ser Met Arg Ser Lys Pro Pro Lys Asn Pro
1               5                   10                  15
Ser Trp Pro His Ser Pro Ser Pro Met Thr Pro Pro Ser Glu Ala Pro
            20                  25                  30
Ser Thr Gln Pro Ser Leu Ser Pro Pro Pro Gln Gln Lys Thr His Pro
        35                  40                  45
Pro Tyr Leu Leu Val Trp Pro Cys Ser Ser Thr Thr Thr Arg His Gly
    50                  55                  60
Asp Arg Leu Arg Glu Ser Thr Leu Arg Thr Phe Thr Cys Ser Pro Ala
65                  70                  75                  80
Pro Glu Ala Arg Asp Met Gly Ser Ser Phe
                85                  90
```

<210> 39042
<211> 159
<212> PRT
<213> A.fumigatus

<400> 39042
Gln Gly Leu Gln Val Gly Phe Tyr Phe Ala Phe Leu Gln Ser Tyr Phe
1 5 10 15
Arg Phe Leu Met Phe Pro Ala Ala Phe Gly Phe Ser Cys Trp Leu Leu
20 25 30
Leu Gly Ser Phe Ser Ile Ile Tyr Thr Val Val Asn Cys Leu Trp Cys
35 40 45
Ile Val Phe Ile Glu Tyr Trp Lys Arg Gln Glu Glu Asp Leu Ser Cys
50 55 60
Arg Trp Gln Thr Lys Gly Val Ser Ala Val His Glu Lys Arg Ala Glu
65 70 75 80
Phe Lys Pro Glu Lys Glu Ile Arg Asp Glu Ser Thr Gly Glu Val Arg
85 90 95
Gly Val Phe Pro Ala Thr Lys Arg Met His Arg Gln Leu Leu Gln Val
100 105 110
Pro Phe Ala Leu Leu Ala Ala Val Ala Leu Gly Ala Ile Ile Ala Thr
115 120 125
Cys Phe Ala Ile Glu Ile Phe Ile Ser Glu Val Tyr Asn Gly Pro Leu
130 135 140
Lys Gly Tyr Leu Val Ser Val Ala Pro Ser Ile Leu Gln Asn Ser
145 150 155

<210> 39043
<211> 167
<212> PRT
<213> A.fumigatus

<400> 39043
Leu Met Ile Gln Val Phe Ile Pro Thr Ile Leu Val Ser Ala Leu Ile
1 5 10 15
Pro Thr Met Ser Ala Val Leu Leu Thr Val Ala Thr Lys Leu Asn Asp
20 25 30
Tyr Glu Asn Tyr Glu Thr Gln Asp Ala Tyr Lys Val Ala Leu Thr Gln
35 40 45
Lys Ile Phe Val Val Asn Phe Ile Thr Ser Tyr Leu Pro Ile Ile Leu
50 55 60
Thr Ala Phe Val Tyr Val Pro Phe Ala Ser Arg Ile Val Pro Tyr Leu
65 70 75 80
Asp Val Phe His Leu Thr Val Arg Pro Phe Val Ser Lys Glu His Ala
85 90 95
Thr Lys Ala Arg Thr Glu Phe Ser Ile Asn Pro Asp Arg Leu Arg Lys
100 105 110
Gln Val Ile Tyr Phe Thr Val Thr Ala Gln Ile Val Gly Phe Ala Leu
115 120 125
Glu Thr Ile Val Pro Phe Val Lys Gln Arg Val Phe Arg Glu Tyr Lys
130 135 140
Glu Tyr Thr Lys Lys Gln His Ala Lys Ala Glu Pro Gly Phe Leu His
145 150 155 160
Arg Gly Arg Thr Ser Ala Tyr
165

<210> 39044
<211> 575
<212> PRT
<213> A.fumigatus

<400> 39044
Thr Lys Lys Val Gly Lys Lys Arg Gly His His Phe Asp Arg Leu Ser
1 5 10 15
Ser Lys Leu Lys Gly Glu Glu Gly Leu Lys Gly Glu Ile Glu Ser Leu
20 25 30
Arg Asp Asp Leu Leu His Leu Gly Gln Asp His Val Glu Ala Lys Asp
35 40 45
Lys Ile Lys Glu Leu Asn Val Glu Lys Lys Ala Leu Glu Glu Thr Val
50 55 60
Ser Lys Leu Glu Lys Glu Leu Ala Asp Ile Arg Thr Ser His Ala Ser
65 70 75 80
Lys Ser Ala Asp Ser Glu Lys Met His Ser Asp Leu Lys Glu Asp Tyr
85 90 95
Glu Asn Leu Lys Val Lys Leu Thr Asn Leu Glu Thr Glu Leu Ser Ala
100 105 110
Ala Gln Gln Leu Ala Ala Thr Arg Phe Lys Asp Leu Thr Glu Leu Arg
115 120 125
Glu Thr Leu Gln Lys Leu Gln Pro Glu Leu Lys Ser Leu Arg Val Glu
130 135 140
Ser Ser Glu Leu Lys Ser Thr Lys Glu Ala Leu Ala Ser Lys Glu Ser
145 150 155 160
Glu Leu Arg Thr Leu Glu Gly Lys His Glu Glu Leu Arg Ala Glu Val
165 170 175
Lys Thr Leu Lys Ser Thr Ile Ser Glu Arg Asp Ala Glu Val Lys Thr
180 185 190
Leu Asn Gln Lys Ile Arg Gln Glu Thr Asp Ser Arg Leu Lys Ala Glu
195 200 205
Glu Asn Leu Thr Val Ala Gln Ser Asp Leu Arg Tyr Ser Glu Ser Lys
210 215 220
Lys Gln Glu Ala Val Glu Thr Lys Glu Lys Ile Ala Ala Asp Leu Ser
225 230 235 240
Arg Ala Gln Asp Glu Leu Lys Thr Ala Arg Ser Gln Leu Arg Glu Val
245 250 255
Glu Asn Lys Val Thr Gln Leu Asn Lys Glu Leu Asp Gly Leu Arg Glu
260 265 270
Glu Ile Gln Leu Lys Thr Ala Gln His Ala Ser Ala Gln Ser Leu Met
275 280 285
Asn Ser Met Arg Asp Gln Ser Ala Glu Leu Ala Met Gln Met Lys Glu
290 295 300
Ala Arg Glu Arg Cys Glu Ser Leu Glu Glu Glu Leu Ala Asp Ala His
305 310 315 320
Arg Leu Leu Ser Glu Arg Thr Arg Glu Gly Glu Thr Met Arg Arg Leu
325 330 335
Leu Ser Asp Ile Glu Gly Arg Ala Glu Ala Lys Val Arg Asp Phe Lys
340 345 350
Glu Arg Met Glu Ala Ala Ile Glu Glu Arg Asp Arg Ala Glu Asp Glu
355 360 365
Ala Ser Ala Gln Gly Arg Arg Arg Ala Arg Glu Leu Glu Glu Leu Lys
370 375 380
Thr Lys Val Arg Glu Ala Glu Lys Ala Leu Arg Thr Ala Glu Glu Asp
385 390 395 400
Lys Glu Glu Leu Glu Arg Ser Gln Lys Asp Trp Lys Arg Arg Arg Asp
405 410 415
Gln Leu Glu Glu Gln Ser Glu Arg Ser Ala Gln Glu Leu Asn Asp Ile
420 425 430
Arg Gln Ala Met Ala Arg Leu Arg Asp Ala Leu Asp Glu Ser Glu Lys

```
        435                 440                 445
Gln Val Arg Asp Leu Glu Lys Glu Lys Ala Glu Leu Arg Arg Ser Val
    450                 455                 460
Glu Glu Thr Asn Ser Arg Leu Glu Lys Leu Arg Arg Ser Tyr Arg Ile
465                 470                 475                 480
Leu Ser Asp Glu Thr Arg Ala Val Gln Asn Pro Gln Ser Ser Arg Ser
                485                 490                 495
Ser Ile Asp Ser Gly Ala Arg Lys Ala Val Ala Ser Pro Val Ser Lys
            500                 505                 510
Asp Arg Ser Pro Ser Thr Arg Arg Ser Glu Thr Pro Thr Gly Ala Pro
        515                 520                 525
Ile Asp Tyr Ile Tyr Leu Lys Asn Val Leu Leu Gln Phe Leu Glu Gln
    530                 535                 540
Lys Asp Lys Asn Tyr Gln Lys Gln Leu Ile Pro Val Leu Gly Met Leu
545                 550                 555                 560
Leu His Phe Asp Arg Ser Val Thr Tyr Phe Leu Asn Tyr Pro Asn
                565                 570                 575

<210> 39045
<211> 213
<212> PRT
<213> A.fumigatus

<400> 39045
Arg Thr Leu Asp Leu Thr Met Ser Gly Glu Ala Thr Ile Arg Leu Ala
1                   5                   10                  15
Thr Pro Glu Gly Lys Phe Thr Pro His Ser Leu Gln Cys Phe Ser Ala
            20                  25                  30
Arg Val Gly His Arg Cys Glu Lys Val Ser Arg Pro Leu Leu Thr Pro
        35                  40                  45
Cys Glu Ile Ala Asp Val Pro Tyr Ile Leu Gln Phe Ile Arg Glu Leu
    50                  55                  60
Ala Asp Tyr Glu Lys Ala Leu His Glu Val Glu Ala Thr Glu Glu Ser
65                  70                  75                  80
Leu Leu Ala Thr Leu Ser Phe Pro Asn Asp Thr Pro Lys Arg Gly Ser
                85                  90                  95
Val Tyr Thr Ala Leu Val Ile Pro Pro Ala Thr Ala Glu Asn Pro Ser
            100                 105                 110
Pro Val Pro Val Gly Met Ala Leu Phe Phe Tyr Asn Tyr Ser Thr Trp
        115                 120                 125
Arg Ser Ala Pro Gly Ile Tyr Leu Glu Asp Leu Tyr Val Gln Pro Ser
    130                 135                 140
Ala Arg Gly Lys Gly Tyr Gly Phe Lys Leu Leu Lys Tyr Leu Ala Ala
145                 150                 155                 160
Lys Val Leu Glu Val Lys Gly Arg Arg Leu Glu Trp Ser Val Leu Lys
                165                 170                 175
Trp Asn Glu Pro Ser Ile Lys Phe Tyr Lys Gln Val Gly Ala Gln Ala
            180                 185                 190
Met Glu Glu Trp Met Lys Met Met Val Glu Gly Pro Ala Leu Asn Lys
        195                 200                 205
Leu Ala Glu Gly Leu
    210

<210> 39046
<211> 73
<212> PRT
```

<213> A.fumigatus

<400> 39046
Trp Arg Trp Pro Ile Ser Ile Thr Ser Pro Ser Ser Asn Leu Glu Ile
1 5 10 15
Pro Tyr Asn Arg Val Lys Arg Tyr Ala Lys Asn Lys His Ser Leu Ile
20 25 30
Pro Leu Tyr Ala Tyr Ile Ile Ala Thr Thr Leu Ser Ser Lys Ile Phe
35 40 45
Glu Leu Ser His Arg Ser Cys Asn Ile Arg Pro Leu Asp Arg Thr Ala
50 55 60
Val Val Lys Cys Thr Phe Val Leu Glu
65 70

<210> 39047
<211> 433
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (279),(421)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39047
Arg Phe Glu Leu Asp Glu Pro Leu Ile Glu Gln Glu Leu Val Asp Pro
1 5 10 15
Pro Gln Ile Val Ser Gly Pro Ile His Thr Asp Pro Ser Thr Thr Ser
20 25 30
Ala Ser Asp Ser Ile Ala Pro Thr Tyr Asp Val Pro Arg Arg Thr Thr
35 40 45
Gln Leu Val Lys Ile Lys Thr Cys Ser Gly Lys Thr His Thr Val Thr
50 55 60
Gln Arg Thr Tyr Lys Pro Arg Val Ser Tyr Glu Arg Leu Val Ala Ser
65 70 75 80
Arg Ser Thr Thr Gly Leu Gly Arg Ala Gln Lys Ser Tyr Tyr Gly Ile
85 90 95
Asn Ile His Gln Ile Leu Asp Glu Val Ala Arg Glu Thr Glu Gln Ala
100 105 110
Lys Ala Ser Thr Lys Ala Leu Asp Arg Thr Ile Gln His Ser Val Glu
115 120 125
Ala Pro Leu Glu Gly Gln Arg Asn Lys Lys Met Ala Ala Ala Met Trp
130 135 140
Thr Glu Lys Tyr Arg Ala Arg Lys Phe Thr Glu Leu Ile Gly Asp Glu
145 150 155 160
Arg Ile His Arg Ser Val Leu Arg Trp Leu Lys Gly Trp Glu Pro Ile
165 170 175
Val Phe Pro Asn Leu Ala Lys Ser Arg Ile Lys Lys Pro Gly Asn Asn
180 185 190
Asn Asp Asp Gly Glu Arg Leu His Arg Lys Val Leu Leu Leu Cys Gly
195 200 205
Pro Pro Gly Leu Gly Lys Thr Thr Leu Ala His Val Cys Ala Lys Gln
210 215 220
Ala Gly Tyr Glu Val Leu Glu Ile Asn Ala Ser Asp Asp Arg Ser Lys
225 230 235 240
Asp Val Val Lys Gly Arg Ile Arg Asp Ala Leu Gly Thr Glu Asn Val

```
                245                 250                 255
Lys Gly Val Asn Val Glu Val Gly Asp Arg Lys Val Arg Lys Ala Gly
            260                 265                 270
Arg Pro Val Cys Val Val Xaa Asp Glu Val Asp Gly Val Val Ser Gly
        275                 280                 285
Ser Gly Ser Gly Gly Lys Gly Ser Phe Met Lys Ala Leu Ile Asp Leu
    290                 295                 300
Val Leu Leu Asp Gln Lys Asn Met Ala Arg Ser Ala Asp Gln Asn Ala
305                 310                 315                 320
Lys Asn Gly Lys Lys Arg Lys Gly Asp Thr Phe Arg Phe Leu Arg Pro
                325                 330                 335
Leu Ile Leu Val Cys Asn Asp Val Tyr His Pro Ser Leu Arg Pro Leu
            340                 345                 350
Lys Thr Ser Ser Glu Val Glu Ile Ile His Val Arg Gln Ala Pro Phe
        355                 360                 365
Glu Asn Val Val Ser Arg Leu Lys Ser Ile Leu Ala Leu Glu Gly Ile
    370                 375                 380
Pro Ser Asp Thr Asn Gly Val Arg Arg Leu Cys Glu Ala Ser Trp Gly
385                 390                 395                 400
Leu Ala Arg Lys Lys Ser Gly Trp Leu Lys Ser Ser Gly Asn Gly Arg
                405                 410                 415
Lys Val Ile Ser Xaa Val Cys Trp Ser Leu Arg Ser Gly Trp Arg Ile
            420                 425                 430
Ser
```

<210> 39048
<211> 60
<212> PRT
<213> A.fumigatus

<400> 39048

```
Phe Arg Gly His Val His Asp Thr Leu Asn His Leu Val Tyr Gly Ser
1               5                   10                  15
Thr Gln Arg Ile Leu Val Arg Lys Ser Val Cys Ile Cys Ser Tyr Ser
            20                  25                  30
Glu Asp Ser Arg Ala Leu Phe Phe Asp Ala Thr Ile Arg Leu Leu Asn
        35                  40                  45
His Leu Ile Ala Ser Asn Leu Ile Gly Leu Pro Arg
    50                  55                  60
```

<210> 39049
<211> 236
<212> PRT
<213> A.fumigatus

<400> 39049

```
Tyr Ser Pro Glu Leu Ser Phe Cys Ser Ser Cys Ala Asn Tyr Lys Met
1               5                   10                  15
Ser Leu Lys Pro Ile Val Leu Trp Ser His Val Met Gly Pro Asn Pro
            20                  25                  30
Leu Lys Val Val Phe Ile Leu Glu Gln Leu Gly Ile Pro Tyr Glu Gln
        35                  40                  45
Lys Tyr Leu Ala Thr Asp Gln Val Lys Lys Glu Pro Phe Val Asn Ile
    50                  55                  60
Asn Pro Asn Gly Arg Val Pro Ala Ile Glu Asp Pro Asn Thr Gly Ile
```

65 70 75 80
Thr Leu Trp Glu Ser Gly Ala Ile Leu Glu Tyr Leu Val Glu Thr Tyr
85 90 95
Asp Lys Gln Asn Thr Ile Ser Phe Pro Thr Gly Ser Pro Glu Tyr Phe
100 105 110
Gln Ala Lys Gln Trp Leu His Phe Gln Met Ser Gly Gln Gly Pro Tyr
115 120 125
Phe Gly Gln Ala Val Trp Phe Thr Ile Tyr His Pro Glu Lys Val Asp
130 135 140
Ser Ala Lys Glu Arg Tyr Tyr Asn Glu Ile Arg Arg Val Cys Gly Val
145 150 155 160
Leu Asn Lys Tyr Leu Gln Asn Arg Glu Tyr Leu Val Gly Asp Lys Phe
165 170 175
Ser Tyr Val Asp Ala Ala Phe Val Pro Trp Phe Arg Ile Ile Pro Ala
180 185 190
Ile Thr Gly Asp Ala Ile Glu Leu Gly Lys Asp Phe Pro Asn Leu Asp
195 200 205
Ala Trp Leu Lys Arg Leu His Ala Leu Pro Ala Ile Ser Lys Ala Phe
210 215 220
Lys Ile Gln Glu Ala Ala Lys Ala Ala Gln Glu Lys
225 230 235

<210> 39050
<211> 112
<212> PRT
<213> A.fumigatus

<400> 39050
Arg Pro Pro Gln Thr Glu Gln Asn Ile Leu Arg Thr Pro Val Phe Lys
1 5 10 15
Ile Leu Ser Glu His Gln Val Lys Ile Thr Ser Lys Thr Ser Leu Ser
20 25 30
His Gln Ser Ser Leu Lys Val Asn Met Pro Phe Arg Thr Thr Met Ser
35 40 45
Ser Asn Thr Ser Ser Ser Asp Ala Ala Ser Thr Arg Ser Val Ser Ser
50 55 60
Lys Ala Ser Thr Leu Glu Gly Ile Gln Asn Met His Lys Lys Phe Leu
65 70 75 80
Val Thr Lys Gln Lys Ala Tyr Ile Asn Ala Asn Ser Ser Pro Cys Phe
85 90 95
Ala Ala Ala Glu His Asn Ala Ala Val Ala Ser Tyr Leu Ala Leu Arg
100 105 110

<210> 39051
<211> 89
<212> PRT
<213> A.fumigatus

<400> 39051
Ile Gln Trp Pro Met Arg Asn Leu Phe Ser Leu Ala Ala Gln Gln Lys
1 5 10 15
His Ile Ala Asn Lys Lys Cys Leu Arg Phe His Thr Ile Ser Pro Ala
20 25 30
Pro Met Pro Ala Thr Phe Thr Leu Asn Ser Asn Phe Phe Lys Tyr His
35 40 45
Pro Gln Ala Cys His Asp Ser Asn Cys Gly Leu Asn Lys Cys Pro Phe

```
    50                  55                  60
Thr Val Phe Ala Asn Thr Gly His Thr Leu Leu Leu Pro Thr Pro Thr
65                  70                  75                  80
His His Asn Trp Ser His Ile Arg Arg
                85
```

<210> 39052
<211> 75
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (27)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39052

```
Asn Glu Val Asn Gln Gly Leu His Glu Ala Ser Phe Ser Thr Ala Pro
1               5                   10                  15
Arg Pro Ala Asn Asp Ser Ile Asp Phe Val Xaa Tyr Asp Ala His Trp
            20                  25                  30
Ser Pro Ser Leu Ser His Phe Ala Ile Ser His Leu His Ile His Ser
        35                  40                  45
Phe His Ile Phe Ser Ala Lys Gly Ile Ser Asn Pro Pro Leu Asp Asn
    50                  55                  60
Val Phe Ala Ala Val Ile Thr Gly Val Asp Leu
65                  70                  75
```

<210> 39053
<211> 229
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (221),(222),(223),(224)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39053

```
Ala Ser Ser Thr Ala Leu Thr Leu Pro Leu Leu Ala Ser Thr Ala Ala
1               5                   10                  15
Arg Pro Arg Tyr Tyr Pro Arg Pro Arg Ser Lys Met Asn Ser Phe Asn
            20                  25                  30
Ser Trp Ile Lys Ala Leu Ser His Thr Ser Arg Ser Cys Gln Gly Arg
        35                  40                  45
Val Ile Ser Gln His Val Met His Pro Phe Ser Thr Thr Met Ser Pro
    50                  55                  60
Ser Ser Ser Ala Lys Glu Lys Thr Arg Glu Ile Glu Arg Gln Ile Leu
65                  70                  75                  80
Asn Pro Asn Ser Glu Gln Thr Thr Asp Asp Asn Ser Pro Leu Ser Ala
                85                  90                  95
Ile Thr Arg Met Met Gln Gly Glu Lys Ala Arg Ala Ser Gln Ala Val
            100                 105                 110
Ser Arg Asp Tyr Ser Arg Met Ala Glu Ser Leu Glu Ala Glu Met Ile
        115                 120                 125
Lys Tyr Pro Tyr Ala Asp Arg Ser Pro Pro His His Leu His Val Tyr
```

```
    130                 135                 140
Ala His Lys His Asn Thr Leu Leu Thr Leu Thr Gln Pro Asn Gly Asn
145                 150                 155                 160
Pro Met Leu Ser Met Ser Cys Gly His Leu Gly Phe Arg Lys Gly Gly
                165                 170                 175
Arg Ser Gly Tyr Asp Pro Ala Tyr Gln Leu Thr Ser His Val Phe Gly
            180                 185                 190
Gln Ile Gln Glu Arg Gly Phe Leu Met Asp Ile Lys Arg Leu Glu Ile
        195                 200                 205
Val Ser Ser Pro Gly Val Gln Gly Arg Ser Val Val Xaa Xaa Xaa Xaa
    210                 215                 220
Ser Lys Gly Leu Gln
225
```

<210> 39054
<211> 333
<212> PRT
<213> A.fumigatus

<400> 39054

```
Ala Pro Thr Glu Ser Gln Lys Arg Leu Ala Leu Ala Ile Ile Asp Phe
1               5                   10                  15
Leu Asn Ser Ser Leu Lys Asp Gly Thr Leu Thr Ala Asp Asp Ala Glu
            20                  25                  30
Ser Ile Glu Ile Ala Gln Ser Cys Ile Ala Asp Thr Phe Lys Val Asp
        35                  40                  45
Pro Ser Asp Glu Ala Ala Val Lys Asp Ala Leu Gly Gly Gln Ser Leu
    50                  55                  60
Ala Ser Ile Phe Ser Val Tyr Glu Lys Leu Arg Gln Lys Pro Ser Lys
65                  70                  75                  80
Glu Pro Ala Ser Ala Gly Ala Gln Ala Gln Ser Thr Glu Ala Gln Gln
                85                  90                  95
Pro Lys Ala Gly Ala Pro Thr Pro Glu Ser Asp Lys Leu Lys Ser Glu
            100                 105                 110
Gly Asn Ala Ala Met Ala Arg Lys Glu Tyr Ser Lys Ala Ile Asp Leu
        115                 120                 125
Tyr Thr Gln Ala Leu Ser Ile Ala Pro Ala Asn Pro Ile Tyr Leu Ser
    130                 135                 140
Asn Arg Ala Ala Ala Tyr Ser Ala Ser Gly Gln His Glu Lys Ala Ala
145                 150                 155                 160
Glu Asp Ala Glu Leu Ala Thr Val Val Asp Pro Lys Tyr Ser Lys Ala
                165                 170                 175
Trp Ser Arg Leu Gly Leu Ala Arg Phe Asp Met Ala Asp Tyr Lys Gly
            180                 185                 190
Ala Lys Glu Ala Tyr Glu Lys Gly Ile Glu Ala Glu Gly Asn Gly Gly
        195                 200                 205
Ser Asp Ala Met Lys Arg Gly Leu Glu Thr Thr Lys Arg Lys Ile Glu
    210                 215                 220
Glu Ala Asn Arg Gly Ala Glu Pro Pro Ala Asp Asp Val Asp Asp Ala
225                 230                 235                 240
Ala Gly Ala Ser Arg Gly Ala Gly Gly Met Pro Asp Leu Ser Ser Leu
                245                 250                 255
Ala Ser Met Leu Gly Gly Arg Gly Gly Gly Gly Gly Gly Met Pro Asp
            260                 265                 270
Leu Ser Ser Ile Met Ser Asn Pro Met Phe Ala Ser Met Ala Gln Asn
        275                 280                 285
```

```
Leu Met Ser Asn Pro Asp Met Leu Asn Asn Leu Met Asn Asn Pro Gln
    290                 295                 300
Leu Arg Gln Met Ala Glu Asn Phe Gly Arg Gly Gly Gly Met Pro Asp
305                 310                 315                 320
Met Ser Ser Leu Met Ser Asp Pro Ser Leu Ala Glu Met
                325                 330
```

<210> 39055
<211> 292
<212> PRT
<213> A.fumigatus

<400> 39055

```
Ser Met Ile Ser Ala Ser Lys Met Ser Ala Val Ala Arg Ala Ala Thr
1               5                   10                  15
Leu Arg Ser His Val Pro Gly Leu Arg Thr Thr Tyr Ser Asn Ala Ile
            20                  25                  30
Ala Ser Ser Arg Thr Leu Ile His Lys Ser Ala Tyr Ser Thr Ser Ile
        35                  40                  45
Pro Thr Ser Pro Thr Val Leu Gln Arg Gln Gln Thr Ser Phe Pro Thr
    50                  55                  60
Gly Val Gln Leu Ile Ser Pro Tyr Thr Ala Leu Pro Leu Thr Arg Ser
65                  70                  75                  80
Phe His Ile Ala Thr Ala Arg Trp Gln Gln Gln Gln Lys Glu Lys His
                85                  90                  95
Ser Glu Glu Pro Lys Ser Glu Lys Ser Glu Glu Ala Lys Ser Glu Gly
            100                 105                 110
Gly Lys Glu Glu Gly Gln Lys Glu Ala Pro Pro Pro Pro Pro Pro His
        115                 120                 125
Gly Asp Lys Thr Pro Trp Gln Val Phe Arg Glu Thr Leu Gln Ala Glu
    130                 135                 140
Phe Lys Ala Ser Lys Glu Trp Asn Glu Ser Thr Lys Ala Leu Ala Ser
145                 150                 155                 160
Ser Ala Gln Glu Phe Ala Glu Asn Glu Asn Ile Lys Arg Ala Arg Ala
                165                 170                 175
Ala Tyr Glu Ala Ala Ser Gly Ala Ala Thr Ser Lys Thr Ser Ala Ala
            180                 185                 190
Leu Lys Lys Thr Gly Gln Ala Ile Gly Lys Gly Ala Ala Trp Thr Trp
        195                 200                 205
Glu Thr Pro Val Val Lys Gly Ile Arg Lys Gly Val Ser Ala Thr Gly
    210                 215                 220
Ala Gly Leu Glu Lys Ala Thr Arg Pro Val Arg Glu Thr Glu Ala Tyr
225                 230                 235                 240
Lys Asn Val Lys Glu Ala Ile Asp Asp Gly Ser Ser Ser Arg Tyr Gly
                245                 250                 255
Gly Trp Ile Glu Lys Glu Glu Arg Arg Arg Gln Arg Gln Leu Arg Glu
            260                 265                 270
Gln Lys Glu Met Met Lys Ser Gly Arg Arg Ser Thr Glu Pro Leu Val
        275                 280                 285
Glu Asp Pro Lys
    290
```

<210> 39056
<211> 173
<212> PRT
<213> A.fumigatus

<400> 39056
Ile Glu Thr Arg Arg Asn Arg Arg Ser Cys Phe Ser Cys Asp Ser Ser
1 5 10 15
Phe Gly Leu Leu Ile His Phe Phe Asn Ile Phe Ser Ile Pro Phe Phe
20 25 30
Tyr Tyr Tyr Tyr Leu Ser Thr Phe Val Leu Ser Thr Asp Phe Met Asp
35 40 45
Leu Val Tyr Gln Ser Phe Leu Ala Phe Met Val Phe Ala Glu Ala Ile
50 55 60
Ala Val Ser Lys Gly Ser Ala Asp Gly Leu Leu Leu Ile Ala Arg Thr
65 70 75 80
Pro Leu Ile Leu Ala Cys Leu His Asn Gly Gln Tyr Pro Phe Phe Phe
85 90 95
Pro Ile Thr Met Gly Val Tyr Gly Val Glu Leu Tyr Asp Leu Arg Gln
100 105 110
Thr Thr Pro Leu Arg Thr Phe Ser Cys Ile Gly Ile Trp Asn His Thr
115 120 125
Gln Pro Ser Ser Arg Phe Cys Cys Phe Leu Val Arg Ala Thr Trp Thr
130 135 140
Tyr Ile Leu Asn Ile Asp Thr Thr Met His Trp Trp Leu Leu Gly Met
145 150 155 160
Leu Cys Gln Gly Lys Pro Leu Ser Asn Gln Gly Gln Ile
165 170

<210> 39057
<211> 259
<212> PRT
<213> A.fumigatus

<400> 39057
Arg Ala Gly Ala Val Arg Pro Ser Arg Trp Leu Lys Ile Gln Ser Lys
1 5 10 15
Cys Cys Phe His Met Glu Leu Phe Leu Phe Arg Thr Leu Thr Ile Ala
20 25 30
Trp Arg Ser Ala Gly Thr Asn Leu Thr Ile His Lys Asp Ser Ala Trp
35 40 45
Lys Glu Ser Trp Arg Glu Phe Lys Glu Ser Asn Pro Met Met Gln Lys
50 55 60
Leu Phe Ala Leu Lys Glu Thr Tyr Asn Glu Ser Glu Asn Pro Leu Ile
65 70 75 80
Ser Thr Ala Arg Ser Ile Ser Asp Arg Val Ala Ser Phe Phe Ala Glu
85 90 95
Asn Glu Thr Ala Gln Val Ile Lys Lys Phe Arg Glu Met Asp Pro Asn
100 105 110
Phe Gln Met Glu Ser Phe Leu Arg Glu Met Arg Glu Tyr Ile Leu Pro
115 120 125
Glu Val Leu Asp Ala Tyr Val Lys Gly Asp Ile Glu Thr Leu Lys Leu
130 135 140
Trp Leu Ser Asp Ala Gln Phe His Val Tyr Ala Ala Leu Ser Lys Gln
145 150 155 160
Tyr Thr Thr Ala Gly Leu Lys Ser Asp Gly Arg Ile Leu Asp Ile Arg
165 170 175
Gly Val Asp Val Ser His Ala Arg Met Leu Glu Pro Gly Glu Ile Pro
180 185 190
Val Phe Val Val Thr Cys Arg Thr Gln Glu Val His Val Tyr Arg Asn

```
        195                 200                 205
Val Lys Thr Gly Glu Leu Ala Ala Gly Met Glu Asp Lys Val Gln Leu
    210                 215                 220
Val Thr Tyr Ala Ile Gly Leu Thr Arg Ile Pro Glu Asp Val Asn Asn
225                 230                 235                 240
Pro Glu Thr Arg Gly Trp Arg Leu Ile Glu Leu Gln Lys Ala Ala Arg
                245                 250                 255
Asp Tyr Ile
```

<210> 39058
<211> 108
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (5)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39058

```
Ile Gly Gln Glu Xaa Tyr Arg Ala Pro Glu Ile Leu Phe Glu Pro Glu
1               5                   10                  15
Leu Ile Gly Leu Glu Tyr Pro Gly Val His Gln Ile Val Gln Asp Ala
            20                  25                  30
Ile Thr Arg Thr Asp Leu Asp Leu Arg Lys Ser Leu Tyr Leu Asn Ile
        35                  40                  45
Val Leu Ser Gly Gly Ser Thr Leu Cys Lys Asn Phe Pro Asp Arg Leu
    50                  55                  60
Met Arg Glu Ile Lys Arg Leu Ala Val Glu Asp Met Lys Ile Arg Ile
65                  70                  75                  80
Ser Ala Pro Ala Glu Arg Lys Tyr Thr Thr Trp Ile Gly Gly Gly Ile
                85                  90                  95
Leu Ala Gly Leu Ser Thr Phe Arg Lys Val Arg Leu
            100                 105
```

<210> 39059
<211> 84
<212> PRT
<213> A.fumigatus

<400> 39059

```
Val Lys Glu Glu Ser Gly Gly Leu Val Ile Ser Gln Arg Lys Val Trp
1               5                   10                  15
Asn Ile Phe Ile Trp Pro Leu Asn Ser Thr Gly Phe Phe Leu Ile Ser
            20                  25                  30
Asp Ile Glu Cys Leu Leu Gly Ser Gly Ile Phe Ser Ser Val Thr Asp
        35                  40                  45
Gly Ile Pro Phe Ile Val Val Pro Asn Pro Ser Leu Gln Asp Asn His
    50                  55                  60
Gln Glu Glu Leu Ala Arg Gln Leu Gln Lys Gln Gly Tyr Val Val Ala
65                  70                  75                  80
Ser His Tyr Gln
```

<210> 39060

<211> 310
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (289),(303)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39060
Asn Leu Ser Gln Pro Pro Val Leu Arg Val Thr Thr Ser Lys Asn Arg
1 5 10 15
Pro Glu Gly His Cys His His Asn Ser Cys Arg Val Ser Pro Thr Asp
20 25 30
Phe Leu Pro Lys His Asn Pro Ser Pro His Arg Met Ala Glu Ala Thr
35 40 45
Leu His Asn Ala Pro Ile Val Ile Asp Asn Gly Ser Gly Thr Ile Arg
50 55 60
Ala Gly Phe Ala Gly Glu Glu Ile Pro Ser Cys Phe Phe Pro Ser Phe
65 70 75 80
Val Gly Arg Pro Lys His Pro Arg Val Met Ala Gly Gly Leu Gln Gly
85 90 95
Asp Val Phe Ile Gly Gln Arg Ala Gln Glu Leu Arg Gly Leu Leu Lys
100 105 110
Ile Arg Tyr Pro Leu Glu His Gly Ile Val Thr Asp Trp Asp Asp Met
115 120 125
Glu Lys Ile Trp His Tyr Val Tyr Glu Asn Glu Leu Lys Thr Leu Pro
130 135 140
Glu Glu His Pro Val Leu Leu Thr Glu Pro Pro Leu Asn Pro Arg Lys
145 150 155 160
Asn Arg Asp Ile Ala Ala Gln Ile Met Phe Glu Thr Phe Asn Val Pro
165 170 175
Ala Leu Tyr Thr Ser Ile Gln Ala Val Leu Ser Leu Tyr Ala Ser Gly
180 185 190
Arg Thr Thr Gly Val Val Leu Asp Ser Gly Asp Gly Val Ser His Ala
195 200 205
Val Pro Val Phe Glu Gly Phe Ala Ile Pro Asn Ser Ile Arg Arg Ile
210 215 220
Asp Val Ala Gly Arg Asp Val Thr Glu Gln Leu Gln Leu Leu Leu Arg
225 230 235 240
Lys Asn Gly His Val Leu His Thr Ser Ala Glu Lys Glu Val Val Arg
245 250 255
Met Ile Lys Glu Lys Val Cys Tyr Val Ser Leu Asp Pro Lys Arg Glu
260 265 270
Glu Lys Asp Trp Met Asn Ser Tyr His Lys Ser Glu Thr Lys Ala Val
275 280 285
Xaa Tyr Val Leu Arg Asp Gly His Lys Ile Lys Val Ser Leu Xaa Thr
290 295 300
Phe Met Gly Arg Pro Ser
305 310

<210> 39061
<211> 91
<212> PRT
<213> A.fumigatus

<400> 39061
Gly Gly Ala Glu Ala Arg Tyr Leu Pro Ala Ala Gly Arg Glu Asp Gly
1 5 10 15
Leu Ala Ser Ser Gly Ser Leu Ile Ala Gly Ile Asn Tyr Ala Asn Gln
20 25 30
Val Arg Glu Asn Leu His Lys Ser Gly Asn Gly Thr Asp Thr Ser Ser
35 40 45
Gln Asp Thr Ser Ile Ala Ser Leu Gly Phe Gly Met Ile Gln Val Ala
50 55 60
Ile Gly Ile Thr Val Gly Leu Phe Ile Ala Ala Leu Val Val Tyr Pro
65 70 75 80
Phe Gly Lys Arg Arg Ser Gly Leu Phe Ser Phe
85 90

<210> 39062
<211> 376
<212> PRT
<213> A.fumigatus

<400> 39062
Pro Phe Thr Val Arg Pro Ser Ser Pro Val Ser His Leu Cys Ile His
1 5 10 15
Val Ser Phe Pro Pro Phe Leu Ile Asp Phe Leu Gly Val Ser Pro Asn
20 25 30
Ala Asn Gln Asp Glu Leu Asn Lys Ala Tyr Arg Lys Lys Ser Arg Leu
35 40 45
Leu His Pro Asp Lys Val Lys Arg Ser Phe Ile Ala Asn Arg Ser Lys
50 55 60
Asp Lys Gly Lys Ala Lys Thr Thr Lys Gln Gly Val His Val Ser Lys
65 70 75 80
Gly Pro Ser Gln Arg Glu Ile Ala Ala Ala Val Lys Glu Ala His Glu
85 90 95
Arg Ala Ala Arg Leu Asn Thr Val Ala Asn Ile Leu Arg Gly Pro Ser
100 105 110
Arg Glu Arg Tyr Asp His Phe Leu Lys Asn Gly Phe Pro Lys Trp Lys
115 120 125
Gly Thr Gly Tyr Tyr Tyr Ser Arg Tyr Arg Pro Gly Leu Gly Ser Val
130 135 140
Leu Ala Gly Leu Phe Leu Val Phe Gly Gly Gly Ala His Tyr Ala Ala
145 150 155 160
Leu Val Leu Ser Trp Lys Arg Gln Arg Glu Phe Val Asp Arg Tyr Ile
165 170 175
Arg Gln Ala Arg Arg Ala Ala Trp Gly Asp Glu Leu Gly Ile Arg Gly
180 185 190
Ile Pro Gly Val Asp Ser Thr Ser Thr Ala Val Pro Pro Pro Pro Pro
195 200 205
Glu Gln Gly Glu Ala Thr Ala Ile Pro Met Asn Arg Arg Gln Lys Arg
210 215 220
Met Met Glu Arg Glu Asn Arg Lys Glu Ser Lys Lys Gly Ser Lys Ala
225 230 235 240
Ser Pro Arg Gly Ser Gly Thr Ala Thr Pro Thr Thr Glu Ser Val Gln
245 250 255
Pro Thr Gly Glu Arg Lys Arg Val Ile Ala Glu Asn Gly Lys Val Leu
260 265 270
Ile Val Asp Ser Val Gly Asn Val Phe Leu Glu Glu Glu Thr Glu Asp
275 280 285

```
Gly Asp Arg Gln Glu Tyr Leu Leu Asp Val Asp Glu Ile Gln Arg Pro
    290                 295                 300
Thr Ile Arg Asp Thr Met Met Phe Arg Val Pro Ile Trp Leu Tyr Gln
305                 310                 315                 320
Gln Thr Val Gly Lys Leu Thr Gly Ala Ser Thr Thr Gly Glu His Glu
                325                 330                 335
Val Asp Ala Glu Glu Glu Ser Ala Glu Ala Thr Glu Gln Glu Val Gln
            340                 345                 350
Asp Ser Ser Ser Ser Ala Leu Arg Thr Asn Gly Gly Ala Ser Arg Arg
        355                 360                 365
Arg Gly Lys Arg Ser Gln Arg Ser
    370                 375

<210> 39063
<211> 80
<212> PRT
<213> A.fumigatus

<400> 39063
Gly Glu Ser Ser Leu Asp Phe Tyr Leu Ile Leu Cys Ser Gly His Cys
1               5                   10                  15
Gly Ile Asp Arg Phe Pro Ser Val Pro Ile Met Lys Pro Leu Thr Leu
            20                  25                  30
Arg Leu Phe Val Phe Ala Val Leu Val Val Leu Ala Ala Ala Trp Thr
        35                  40                  45
Lys Glu Gly Leu Ser Ser Tyr Ser Ser Pro Leu Tyr Arg His Gly Phe
    50                  55                  60
Pro Trp Glu Gln Lys Asn Cys Arg Ile Asn Ala Asn Leu Leu Arg Leu
65                  70                  75                  80

<210> 39064
<211> 94
<212> PRT
<213> A.fumigatus

<400> 39064
Pro Glu Leu Arg Pro Arg Glu Ser Thr Lys Trp Thr Leu Lys Lys Asn
1               5                   10                  15
Leu Gln Arg Pro Arg Ser Arg Arg Ser Arg Ile Ala Ala Val Leu Leu
            20                  25                  30
Ser Gly Pro Met Ala Ala Arg Leu Asp Gly Glu Gly Asn Gly His Lys
        35                  40                  45
Gly Pro Lys Ser Val Cys Pro Gln Asp Gly Arg Ala Ile Val Lys Val
    50                  55                  60
Lys Pro Trp Leu Ile Leu Leu Phe Leu Lys His Tyr Arg Arg Glu Ile
65                  70                  75                  80
Ile Val Tyr Met Tyr Ile Asn Phe Arg Arg Lys Lys Lys Lys
                85                  90

<210> 39065
<211> 412
<212> PRT
<213> A.fumigatus

<400> 39065
Ala Asn Arg Glu Cys Phe Phe Arg Gly Gly Gly Leu Gly Gly Arg Pro
```

```
1               5                   10                  15
Arg Ala Pro Tyr Gly Met Pro Arg Trp Gly Arg Pro Pro Gly Ala Arg
            20                  25                  30
Val Gly Arg Ser Ser Gly Arg Gln Ala Ala Gln Trp Met Asp Ile Asn
        35                  40                  45
Asn Val Arg Ile Gln Glu Ile Asp Cys Gly Ala Glu Glu Glu Tyr Leu
    50                  55                  60
Leu Arg Pro Gly Arg Ala Leu Tyr Ala Ala Glu Gln Arg Arg Asn Gly
65                  70                  75                  80
Trp Pro Arg Arg Asn Glu Asp Tyr Asp Ala Ser Ala Gly Asp Val His
                85                  90                  95
Ser Val Asp Gly Ile Asp Leu Asp Leu Asp Asp Asp Ser Asp Ser Thr
            100                 105                 110
Val Ala Tyr Ala Val Gln Leu Ala Met Lys Asp Asp Glu Glu Trp Leu
        115                 120                 125
Val Asp Lys Ala Leu Glu Arg Ile Arg Arg Ala Gln Leu Leu Gly Gln
    130                 135                 140
Lys Asn Val Arg Leu Ser Gln Arg Glu Leu Asp Ala Leu Glu Arg Lys
145                 150                 155                 160
Arg Met Gln Thr Ser Gly Met Glu Asp Val Gly Gln Arg Asn Lys Val
                165                 170                 175
Pro Lys Ala Ala Ser Val Ala Ser Arg Pro Leu Arg Pro Val Glu Ser
            180                 185                 190
Ser Thr Asn Gly Gly Leu Gly Asn Leu Trp Thr Met Arg His Gly Ser
        195                 200                 205
Ser Ala Pro Asn Gly Ser Ile Pro Arg Thr Phe Val Ala Asp Lys Lys
    210                 215                 220
Glu Met Tyr Glu Ser Arg Ala Arg Ala Ser Gly Ala Ser Ala Arg Asp
225                 230                 235                 240
Asp Ser Pro Val Leu Pro Arg Thr Ser Thr Val Pro Asn Leu Gln Pro
                245                 250                 255
Arg Met Ser Gly Pro Pro Thr Tyr Ser Ser Val Pro Arg Asp Ser Arg
            260                 265                 270
Ser Glu Val Pro Leu Thr Tyr Pro Ser Pro Arg Pro Pro Ala Thr Phe
        275                 280                 285
Gln Asn Pro Pro Tyr Ala Arg Ile Leu Pro His Gly Pro Gln Trp Val
    290                 295                 300
Pro Ser Tyr Gln Ala Ser Tyr Ala Leu Ala Thr Val Pro Ala Gly Ser
305                 310                 315                 320
Gln Ser His Pro Gly His Met Ala Tyr Pro Ala Thr Pro Ala Ser Val
                325                 330                 335
Leu Gly Asp Arg His Pro Leu Ser Arg Gln His Val Ser Leu Asn Ser
            340                 345                 350
Thr Arg Gly Asp Leu Ser Ser Ala Ala Asp Glu Glu Glu Asp Ser Glu
        355                 360                 365
Ser Asp Asn Asp Gly Asp Arg Ile His Ile Val Asp Val Val Arg Arg
    370                 375                 380
Lys Val Pro Ile Gly Leu Gln Arg Arg Pro Ser Ala Ala Gly Gly Ala
385                 390                 395                 400
Gly Ala Arg Ala Val His Pro Arg Ser Arg Arg Ser
                405                 410
```

<210> 39066
<211> 307
<212> PRT
<213> A.fumigatus

<400> 39066
Gly Lys Pro Arg Val Leu Asp Pro Leu Ser Ile Leu Asn Leu Gln Gly
1 5 10 15
Phe Ser Leu Val His Ser Lys Ser Trp Thr Ala Val Thr Lys Ser Ala
20 25 30
Lys Val Val Lys Ala Lys Ser Pro Leu Cys Leu Leu Gln Arg Arg Asn
35 40 45
Gln Asn Tyr Asp Pro Asn Gly Ala Arg Leu Lys Val Pro Met Ile Phe
50 55 60
Leu Ser Pro Gly Phe Leu Ile Ser Ser Gly Gln Ile Asp Leu Ser Thr
65 70 75 80
Leu Pro Ser Leu Thr Thr Pro Phe Tyr Glu Val Leu Leu Cys Ser Leu
85 90 95
Thr Arg Phe Thr Ala Thr Ser Cys Leu Leu Ile Leu Phe Asn Phe Ser
100 105 110
Trp Pro Ser Val Thr Thr Ser Glu Phe Ile Ser Ile His Lys Ser Ser
115 120 125
Tyr Asn Gln Phe Thr Met Ser Pro Ile Gln Phe Pro Ile Asp Ala Ile
130 135 140
Ala Ser Arg Phe Gly Asp Arg Phe Asn Ser Val Arg Ala Gln Ser Leu
145 150 155 160
Thr Ser Arg Phe Ser Asn Leu Arg Pro Ile Ser Glu Phe Leu Asp Val
165 170 175
Lys Arg Leu Ser Lys Pro Ala Asn Phe Gly Glu Val Gln Ser Arg Val
180 185 190
Asn Tyr Asn Leu Ala Tyr Phe Ser Ser Asn Tyr Ala Ala Val Phe Val
195 200 205
Met Leu Ser Ile Tyr Ser Leu Leu Thr Asn Leu Ser Leu Leu Leu Val
210 215 220
Ile Leu Leu Val Ala Gly Gly Leu Tyr Gly Ile Gly Lys Leu Gln Gly
225 230 235 240
Arg Asp Leu Asp Leu Gly Phe Ala Arg Phe Thr Thr Ser Gln Leu Tyr
245 250 255
Thr Gly Leu Leu Ile Val Ala Val Pro Leu Gly Leu Tyr Ala Ser Pro
260 265 270
Ile Ala Thr Ala Leu Trp Leu Ile Gly Ala Thr Gly Val Thr Val Phe
275 280 285
Gly His Ala Ala Phe Met Asp Lys Pro Ile Glu Asn Ala Phe Ser Glu
290 295 300
Glu Ala Val
305

<210> 39067
<211> 75
<212> PRT
<213> A.fumigatus

<400> 39067
Gly Thr Asp Tyr Phe Ser Val Gly Tyr Leu Ile Ser Ala Val Leu Ile
1 5 10 15
Cys Ile Glu Tyr Leu Trp Leu Gly Ile Phe Tyr Arg Ser Gln His Arg
20 25 30
Ile Leu Phe Ala Ser Phe Val Ile Lys Leu Ala Phe Val Ile Ile Glu
35 40 45
Val Ala Leu Ala Ile Ala Phe Gly Ile Cys Thr Arg Arg Ser Ser Gly

```
    50                  55                  60
Lys Lys Asn Val Gly Ala Ile Phe Gly Met Gly
65                  70                  75

<210> 39068
<211> 147
<212> PRT
<213> A.fumigatus

<400> 39068
Lys Ser Val Arg Trp Gly Gln Thr Tyr Ile Leu Asp Ala Leu Met Ser
1               5                   10                  15
Tyr Val Pro Gln Asp Thr Ala Glu Ala Leu Leu Leu Ala Glu Arg Val
            20                  25                  30
Ala Pro Arg Leu Ser His Ser Asn Ser Ser Val Val Leu Thr Ser Ile
        35                  40                  45
Arg Val Ile Leu Tyr Leu Met Asn Tyr Ile Ala Asp Glu Arg His Ile
    50                  55                  60
Thr Ser Leu Ser Lys Lys Leu Ser Pro Pro Leu Val Thr Leu Leu Ser
65                  70                  75                  80
Lys Pro Pro Glu Val Gln Tyr Leu Ala Leu Arg Asn Ala Ile Leu Ile
                85                  90                  95
Leu Gln Lys Arg Pro Glu Val Leu Arg Asn Asp Ile Arg Val Phe Phe
            100                 105                 110
Cys Asn Tyr Asn Asp Pro Ile Tyr Val Lys Val Thr Lys Leu Glu Leu
        115                 120                 125
Ile Phe Met Leu Thr Thr Lys Glu Asn Ile Gly Ile Val Leu Ala Glu
    130                 135                 140
Leu Arg Glu
145

<210> 39069
<211> 81
<212> PRT
<213> A.fumigatus

<400> 39069
Ser Ser Pro Arg Gly Val Val Ile Ser Val Ile Thr Val Leu Val Ser
1               5                   10                  15
Ala Gly Met Ser Val Phe Val Ala Pro Ile Arg Ser Ala Val Ser Leu
            20                  25                  30
Thr Pro Thr Ile Ile Pro Pro Ile Met Ala Ser Val Leu Ile Ser Ala
        35                  40                  45
Ile Ile Pro Ser Ile Ser Leu Val Ser Val Ile Ala Ile Ile Pro Pro
    50                  55                  60
Phe Pro Val Gly Pro Val Trp Arg Gln Gly Arg Pro Arg Pro Val Pro
65                  70                  75                  80
Met


<210> 39070
<211> 346
<212> PRT
<213> A.fumigatus

<400> 39070
```

```
Arg Tyr Ala Thr Glu Ile Asp Val His Phe Val Arg Lys Ala Val Arg
1               5                  10                  15
Ala Ile Gly Lys Leu Ala Ile Lys Ile Glu Ser Ala Ala Arg Gln Cys
            20                  25                  30
Ile Asp Thr Leu Leu Glu Leu Val Asn Ala Lys Ile Pro Tyr Ile Val
        35                  40                  45
Gln Glu Ala Thr Val Val Ile Arg Asn Ile Phe Arg Lys Tyr Pro Asn
    50                  55                  60
Gln Tyr Glu Ser Ile Ile Ser Asn Val Ile Gln Asn Ile Asp Glu Leu
65                  70                  75                  80
Asp Glu Pro Glu Ala Lys Ala Ala Ile Ile Trp Ile Ile Gly Gln Tyr
                85                  90                  95
Ala Asp Arg Ile Glu Asn Ser Asp Gly Leu Leu Gln Asp Tyr Leu Ala
            100                 105                 110
Thr Phe His Asp Glu Thr Val Glu Val Gln Leu Ala Leu Leu Thr Ala
        115                 120                 125
Thr Val Lys Leu Phe Ile Gln Arg Pro Thr Lys Gly Gln Gln Leu Val
    130                 135                 140
Pro Gln Val Leu Lys Trp Cys Thr Glu Glu Thr Asp Asp Pro Asp Leu
145                 150                 155                 160
Arg Asp Arg Gly Tyr Met Tyr Trp Arg Leu Leu Ser Thr Asp Pro Ala
                165                 170                 175
Ala Ala Lys Gln Val Val Met Gly Gln Lys Pro Pro Ile Ser Ala Glu
            180                 185                 190
Ser Glu Lys Leu Asp Ser Arg Thr Leu Glu Glu Leu Cys Leu Asn Val
        195                 200                 205
Gly Thr Leu Ala Thr Val Tyr Leu Lys Pro Val Gln Gln Val Phe Arg
    210                 215                 220
Ser Ala Arg Thr Arg Arg Leu Gln Tyr Ser Pro Ala Leu Gln Lys Pro
225                 230                 235                 240
Gln Asp Glu Asn Gly Ser Gly Ala Trp Gln Phe Leu Thr Gly Thr Gly
                245                 250                 255
Pro Asp Ser Gly Val Ala Ala Asn Ala Ser Pro Thr Asn Gly Ser Gly
            260                 265                 270
Thr Gly Ala Ser Ser Met Asn Ala Ala Val Ser Ala Ala Asp Met Tyr
        275                 280                 285
Phe Asn Asn Val Gly Ser Gln Gln Met Ala Ala Leu Asp Leu Gly Gly
    290                 295                 300
Arg Glu Asp Gly Gly Ser Gly Gly Gly Gly Ala Ser Gln Thr Gln Tyr
305                 310                 315                 320
Val Val Asn Gln Asn Gln Gln Gln Val Tyr Gln Pro Gln Leu Ala Gly
                325                 330                 335
Gly Ala Ala Thr Gly Glu Leu Leu Leu Leu
            340                 345
```

<210> 39071
<211> 62
<212> PRT
<213> A.fumigatus

<400> 39071

```
Ser Asn Tyr Gly Ile Leu Ile Ser Ala Pro Leu Trp Leu Leu Gln Pro
1               5                  10                  15
Asp Trp Ile Phe Ser Leu His Phe Gly Val Glu Glu Glu Ser Met Pro
            20                  25                  30
Asn Asn Gln Cys Gln Lys Lys Ile Thr Val Ser Leu Ile Phe Ser Gln
```

```
        35                  40                  45
Pro Leu Arg Asn Glu Ser Lys Ala Gln Gly Ile Thr Ala Ala
    50                  55                  60
```

<210> 39072
<211> 107
<212> PRT
<213> A.fumigatus

<400> 39072

```
Phe Glu Ile Thr Phe Pro Ser Met Phe Ile Ala Val Leu Pro Tyr Ala
1               5                   10                  15
Thr Ser Tyr Gly Ser Pro Phe Ser Gln Ser Ser Gln Gly Lys Val Ala
            20                  25                  30
Glu Leu Arg Gln Glu Leu Asn Ser Gly Gly Lys Lys Asp Lys Asn Phe
        35                  40                  45
Ser Ala Lys Lys Ile Ala Leu Lys Lys Ile Val Ala Asn Met Thr Met
    50                  55                  60
Ser Asn Asn Asp Met Val Ala Leu Phe Pro Asp Val Ile Gly Cys Met
65                  70                  75                  80
Asn Leu Pro Ser Leu Glu Ile Lys Lys Met Tyr Val Pro Ser Glu Asp
                85                  90                  95
Asn Gly Tyr Asn Ala Gln Ala Arg Thr Asp Asp
            100                 105
```

<210> 39073
<211> 128
<212> PRT
<213> A.fumigatus

<400> 39073

```
Ala Asn Ile Ala Ser Gln Asp Met Asp Asp Ser Asn Pro Leu Val Arg
1               5                   10                  15
Ala Leu Ala Leu Arg Thr Ile Ser Tyr Val His Val Arg Glu Phe Val
            20                  25                  30
Glu Ala Thr Val Gln Pro Leu Lys Arg Leu Met Gly Asp Ile Asp Pro
        35                  40                  45
Tyr Val Arg Lys Thr Ala Ala Phe Cys Val Ser Lys Leu Tyr Glu His
    50                  55                  60
Asp Lys Lys Met Val Glu Gly Ser Asp Leu Ile Asp Arg Leu Asn Arg
65                  70                  75                  80
Met Leu Lys Asp Glu Asn Pro Thr Val Val Ser Ser Val Leu Ala Ser
                85                  90                  95
Leu Thr Asp Ile Trp Gly Arg Ser Glu Ser Ile Ser Leu Thr Ile Asp
            100                 105                 110
Tyr Ala Ser Ala Ser Lys Leu Val Ser Ile Leu Pro Asp Cys Ser Glu
        115                 120                 125
```

<210> 39074
<211> 462
<212> PRT
<213> A.fumigatus

<400> 39074

```
Arg Ser Lys Tyr Leu His Phe His Ser Leu Asn His Pro Phe Cys Ile
1               5                   10                  15
```

```
Thr Leu Thr His Gln His Ile Arg Ser Trp His Pro Ser Leu Leu Arg
            20                  25                  30
Asn Gln Glu Arg Val Trp Ala Glu Glu Lys Arg Ala Leu Glu Glu Arg
        35                  40                  45
Lys Arg Ile Glu Gln Leu Arg Arg Glu Arg Glu Glu Glu Arg Gln Ile
    50                  55                  60
Gln Glu Leu Gln Arg Leu Gln Glu Ala Ser Gly Lys Gly Arg Gln Leu
65                  70                  75                  80
Asn Arg Val Asp Trp Met Tyr Gln Ala Pro Ser Ser Ala Thr Gly His
                85                  90                  95
Tyr Ala Glu Glu Met Glu Gly Tyr Leu Leu Gly Lys Arg Arg Ile Asp
            100                 105                 110
Gly Ile Leu Leu Lys Asn Asp Glu Ser Lys Lys Leu Glu Lys Gly Thr
        115                 120                 125
Asp Val Val Gly Ala Asn Ala Ala Pro Pro Pro Val Asn Asn Pro Arg
    130                 135                 140
Asp Thr Met Ala Lys Val Met Ala Asp Pro Leu Leu Glu Ile Lys Lys
145                 150                 155                 160
Arg Glu Gln Ala Ala Tyr Glu Asn Met Val Lys Glu Ser Val Arg Arg
                165                 170                 175
Ser Gln His Ile Arg Asp Lys Asp Arg Asp Arg Asp Arg Glu Arg Arg
            180                 185                 190
Arg Asp Arg Gly Asp Arg Asp Arg Ser Arg Asp Arg Asp Arg Ser His
        195                 200                 205
Arg Arg Ser Arg His Glu Asp Glu Asp Ala His Arg Ser His Arg His
    210                 215                 220
Arg Ser His Arg His Arg Ser Arg Ser Pro Leu Ser Pro Asp Arg Ser
225                 230                 235                 240
Asp Arg Lys Arg Gly Asp Asp Arg Asp Tyr Arg Asp Glu Arg Asp Arg
                245                 250                 255
Arg Asp Asp Arg Arg Asp Glu His Arg Gly His Asp Arg Arg Asp Asp
            260                 265                 270
Arg Arg Ser Glu Arg Asp Arg Arg Ala Asp Arg Gly Asp Glu Asp Arg
        275                 280                 285
His Ser Ser Arg Tyr Lys Asp Arg Asp Asp Arg Tyr Asp His Ser Thr
    290                 295                 300
Arg Arg Arg Ser Tyr Ala Asp Arg Ser Pro Ser Pro Arg Arg Gly Asn
305                 310                 315                 320
His Tyr Tyr Asp Arg Arg Arg Thr Glu Asp Arg Ser Asp Gly Tyr His
                325                 330                 335
Arg Asp Ser Arg Asn His Asp Arg Pro Glu Phe Tyr Arg Gly Asn Asp
            340                 345                 350
Arg Lys Val Asn Lys Glu Pro Arg Asp Ser Asn Leu Arg Glu Arg Ser
        355                 360                 365
Ser Asn Thr Arg Asp Glu Val Ala Gly Asn Lys Glu Lys Val Leu Glu
    370                 375                 380
Glu Glu Arg Lys Lys Lys Leu Ala Glu Met Met Ser Asn Ala Asp Glu
385                 390                 395                 400
Leu Glu Gln Lys Arg Leu Gln Arg Ile Ala Glu Val Thr Ala Met Glu
                405                 410                 415
Glu Lys Glu Arg Glu Ala Asp Glu Lys Gln Arg Ser Glu Arg Gly Arg
            420                 425                 430
Phe Val Gly Gln Leu His Arg Gln Leu Gln Glu Asp Ser Leu Asp Asp
        435                 440                 445
Arg Ile Arg Arg Ser Arg Gly Gly Leu Glu Arg Met Glu Asp
    450                 455                 460
```

<210> 39075
<211> 186
<212> PRT
<213> A.fumigatus

<400> 39075
Tyr Asp Ala Arg Asn Pro Ser Asp Val Ser Leu Glu Gln Arg His Glu
1 5 10 15
Pro Pro Pro Leu Gln Pro Arg Gln Asp Gln Leu Glu Lys Ala His Ala
20 25 30
Gln Phe Gly Thr Arg Ile Ser Asp Ala Val Asn Thr Ile Gln Asn Thr
35 40 45
Thr Val Ser Asp Gly Thr Pro Phe Gly Leu Val Gln His Leu Leu Ser
50 55 60
Pro Leu Lys Asp Ala Leu Leu Pro Val Gly Thr Arg Ala Tyr Gly Ala
65 70 75 80
Leu Val Tyr Ala Asn Leu Ala Asn Ala Ser Val Gln Gln Asn Asp Glu
85 90 95
Ile Arg Ala Gly Asp Ile Val Thr Phe Arg Asn Ala Arg Phe Gln Gly
100 105 110
His Arg Gly Thr Met His Gln Lys Tyr Asn Ala Glu Val Gly Lys Pro
115 120 125
Asp His Val Gly Ile Val Val Asp Trp Asp Gly Thr Lys Lys Lys Ile
130 135 140
Arg Ala Trp Glu Gln Gly Arg Glu Ser Lys Lys Val Lys Val Glu Ser
145 150 155 160
Phe Lys Leu Asn Asp Leu Arg Ser Gly Glu Cys Lys Val Trp Arg Val
165 170 175
Met Pro Arg Ser Trp Val Gly Trp Glu Ser
180 185

<210> 39076
<211> 551
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (521),(542)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39076
Trp Leu Glu Ser Ser Ile Ser His Ile Lys Cys Ser Cys Tyr Ser Asn
1 5 10 15
Leu Val Ser Ile Cys His Arg Cys Cys Gln Leu Ser Pro Asp Leu Asp
20 25 30
Ser Asn Lys Pro Gln Arg Leu Tyr Val Arg Asn Ala Ser Pro Asn Val
35 40 45
Gly Ile Arg Gln Asn Phe Pro Ser Asn Ala Ala Met Gly Thr Phe Arg
50 55 60
Phe Gly Arg Leu Arg Ser Leu Leu Leu Ala Thr Gly Ala Ile Phe Leu
65 70 75 80
Ile Ser Thr Phe Tyr Leu Tyr Trp Thr Pro Ala Pro Ala Ser Val Val
85 90 95
Pro Ser Ser Ala Phe Glu Val Pro Leu Thr Glu Arg Gln Ile Ala Leu

```
                100                 105                 110
Trp Lys Ala Leu Lys Ser Ile Leu Glu Lys Asn Ala Pro Asn Cys Pro
        115                 120                 125
Ser Pro Val Ala Arg Ala Asp Ala His Ala Val His Phe Asn Ala Thr
    130                 135                 140
Ser Thr Asp Ala Arg Pro Asp Leu Thr Leu Leu Lys Asp Asp Asp Arg
145                 150                 155                 160
Lys Ala Met Glu Glu Ala His Ala Asn Tyr Ile Arg Asp Ile Arg Val
                165                 170                 175
Ser Glu Lys Leu Arg Ser Pro His Thr Ala Gly Thr Arg Gly Leu Val
            180                 185                 190
Ser Thr Ala Gly Gly Ser Tyr Leu Pro Val Phe Leu Ser Ser Leu Arg
        195                 200                 205
Met Leu Arg Arg Thr Gly Ser Ala Leu Pro Val Glu Leu Phe Met Lys
    210                 215                 220
Asp Ala Thr Glu Tyr Glu Lys Lys Ile Cys Asp Gly Val Leu Pro Asp
225                 230                 235                 240
Leu Gly Ala Lys Cys Val Val Leu Ser Glu Ile Val Gly Lys Thr Pro
                245                 250                 255
Ile Ala His Tyr Gln Leu Lys Ala Phe Ala Ile Leu Phe Ser Ser Phe
            260                 265                 270
Glu Glu Ile Ile Trp Met Asp Ala Asp Cys Phe Pro Leu His Lys Pro
        275                 280                 285
Glu Glu Leu Phe Asp Ser Glu Pro Phe Lys Thr Asn Gly Leu Val Thr
    290                 295                 300
Trp Pro Asp Phe Trp Ala Ser Thr Ala Ser Pro Ala Tyr Phe Glu Leu
305                 310                 315                 320
Ser Arg Gln Pro Ile Pro Pro Val Ser Ala Arg Gln Ser Ser Glu Thr
                325                 330                 335
Gly Val Phe Met Val Ser Lys Glu Ala His Leu Thr Thr Leu Leu Leu
            340                 345                 350
Ala Ala Tyr Tyr Asn Tyr Tyr Gly Pro Ser His Tyr Phe Arg Leu Leu
        355                 360                 365
Ser Gln Gly Ala Pro Gly Glu Gly Asp Lys Glu Thr Phe Leu Gln Ala
    370                 375                 380
Ala Thr Ala Leu Gly Glu Pro Phe Tyr Ala Val Ser Glu Arg Val Gln
385                 390                 395                 400
Ala Leu Gly His Trp Lys Pro Asp Gly Glu Gly Leu Ser Gly Ser Ala
                405                 410                 415
Met Ala Gln Ala Asp Pro Val Glu Asp Tyr Ala Leu Thr Ser Gln Asp
            420                 425                 430
Lys Arg Arg Val Ile Asp Pro Ser Val Ala Lys Ala Pro Arg Val Phe
        435                 440                 445
Phe Ile His Ala His Tyr Pro Lys Phe Asn Pro Ala Glu Asn Val Phe
    450                 455                 460
Gly Thr Lys Trp Asp Thr Thr Pro Thr Leu Lys Ala Asp Gly Ser Glu
465                 470                 475                 480
Gly Arg Ala Trp Thr Ala Pro Glu Asp Val Val Ser Arg Phe Gly Tyr
                485                 490                 495
Asp Val Glu Arg Asn Tyr Trp Glu Glu Ile Lys Trp Val Ser Cys Asp
            500                 505                 510
Pro Lys Thr Gln Phe Gln Thr Trp Xaa Asn Lys Asn Glu Val Cys Gln
        515                 520                 525
Lys Ser Gln Lys Leu Leu Ala Lys Lys Cys Ser Pro Glu Xaa His Glu
    530                 535                 540
Gly Arg Ser Lys Val Tyr Arg
```

545 550

<210> 39077
<211> 242
<212> PRT
<213> A.fumigatus

<400> 39077
Pro Thr Val Ile Ala Met Thr Ser Val Asp Pro Arg Tyr Glu Gln Leu
1 5 10 15
Phe Leu Glu Ile Glu Ser Arg Phe Arg Ser Thr Ala Leu Pro Ala Asp
20 25 30
Lys Trp Tyr Ile Leu Ala Ile Ala Thr Ile Val Ala Ser Ser Asp Pro
35 40 45
Glu Arg Ala Asp Gln Leu Tyr Leu His Leu Ile Asn Gln Pro Gly His
50 55 60
Glu Ser Pro Ser Ala Arg Gln Ala Leu Val Lys Arg Leu Arg Glu Ala
65 70 75 80
Leu Phe Lys Ser Val Ile Ile Val Gly Val Cys Lys Pro Ile Glu Ala
85 90 95
Ile Leu Ala Ile Ser Lys Val Glu Arg Asp Glu Asp Lys Glu Tyr Thr
100 105 110
Cys Thr Arg Glu Asn Trp Gln Cys Asp Ala Ala Asn His Glu Arg Gly
115 120 125
Met Asn Trp Phe Gly Lys Leu Tyr Ala Arg Asn Ala Ser Asn Thr Leu
130 135 140
Asp Leu Phe Asn Gly His Lys Asp Phe Ala Trp Leu Ser Met Glu Ile
145 150 155 160
Thr Tyr Gly Leu Phe Leu Ser Asp Arg Gln Val Leu Asp Asp Val Asp
165 170 175
Thr Gln Met Val Val Leu Pro Ala Ile Met Ser Gln Asn Leu Arg Thr
180 185 190
Glu Thr His Trp His Ile Arg Gly Thr Arg Arg Leu Gly Leu Ser Arg
195 200 205
Glu Glu Val Gln Val Val Trp Asp Cys Val Gln Leu Val Ala Gly Phe
210 215 220
Phe Gly Val Thr Leu Asp Lys Val Pro Thr Val Glu Glu Val Glu Ala
225 230 235 240
Asp Val

<210> 39078
<211> 61
<212> PRT
<213> A.fumigatus

<400> 39078
Asn Pro Pro Ala Lys Thr Glu Trp Glu Asn Pro Gln Thr Gln Tyr Arg
1 5 10 15
Ala Leu Arg Glu Pro Ser His Ser His Arg Ala Leu Thr Phe Arg Lys
20 25 30
Leu Pro Met Gln Gly Ile Ala Val Ser Thr His Asn Asn Gly Ser Thr
35 40 45
Trp Ala Phe Gly Pro Asn Tyr Leu Leu Pro Thr Ile Arg
50 55 60

<210> 39079
<211> 67
<212> PRT
<213> A.fumigatus

<400> 39079
Ser Gln Arg Leu Asp His Met Thr Ser His Arg Pro Ala Ser Gly Ile
1 5 10 15
Lys Pro Tyr Gln Ser Leu Thr Met Thr Thr His Ser Tyr Phe Asn Glu
20 25 30
Leu Lys Tyr Asn Pro Leu Ile Asp Leu Thr Gln Pro Leu Thr Leu Ser
35 40 45
Ser Ile Leu Asn Leu Lys Arg Tyr Tyr Gln Asn Ala His Arg Asn Pro
50 55 60
Lys Ile Trp
65

<210> 39080
<211> 62
<212> PRT
<213> A.fumigatus

<400> 39080
Gly Leu Ser Gly Ile Ala Ile Ile Trp Ser Thr Ile Pro Arg Gly Cys
1 5 10 15
Pro Phe Phe Arg Phe Ser Ala Gly Leu Glu Lys Ser Ser Gln Asp Phe
20 25 30
Ser Gln Pro Lys Ile Ala Ser Ile Ile Leu Phe Pro Phe Asn Asn Lys
35 40 45
Tyr Thr Val Met Ala Val Ala Arg Met Lys Asp Leu His Phe
50 55 60

<210> 39081
<211> 84
<212> PRT
<213> A.fumigatus

<400> 39081
Glu Gln Leu Phe Val Ala Arg Val Asp Arg Cys His Cys Asp Tyr Cys
1 5 10 15
Gly Ser Ile Asn Gly Leu Asn Ile Asp Val Ser Ile Glu Lys Asp Asp
20 25 30
Ser Ile Ser Glu Trp Ala Val Val Ile Met Gln Val Cys Ile Ala Asp
35 40 45
Ala His Leu Lys Pro His Thr Pro Asn Ser Val Leu Gln Met Met His
50 55 60
Pro Met His Ser Tyr Tyr Asp Asn Ala Leu Thr Gln Leu Lys Ser Glu
65 70 75 80
Ile Leu Thr Val

<210> 39082
<211> 94
<212> PRT
<213> A.fumigatus

<400> 39082
Leu Thr Ser Arg Asn Leu Leu Pro Ser Leu Gln Ser Ser Ile Ser Lys
1 5 10 15
Asp Ile Thr Lys Met Pro Thr Gly Thr Gln Lys Ser Gly Ser Ser Tyr
20 25 30
Ala Gly Gly Gly Gln Ser Ser Val Gly Gln Pro Ser Val Tyr Glu Ala
35 40 45
Gly Asp Gln Arg Asn Glu Pro Gln Ser Val Ile Asn Glu Arg Glu Arg
50 55 60
Tyr His Glu Gly Gln Lys Gly Ser His Lys Asn Leu Asp Ser Ser Thr
65 70 75 80
Ser Leu Pro Ser Asp Asn Gln Leu Gly Leu Val Pro Gly Ser
85 90

<210> 39083
<211> 85
<212> PRT
<213> A.fumigatus

<400> 39083
Pro Arg Asn Gly Thr Thr Lys Glu Leu Cys Thr Tyr Ala Ile Asn Val
1 5 10 15
His Ile Val Tyr Leu Lys Tyr Gly Ser Pro Pro Tyr Met Gly Asp Ala
20 25 30
Pro Leu Met Asp Lys Ser Arg Val Cys Ala Phe Asn Tyr Gly Arg Ile
35 40 45
Pro His Leu Leu Ile Ala Thr Pro Lys Pro Arg Lys Thr Leu Ser Pro
50 55 60
Phe His Lys Thr Arg Gly Arg Leu Leu Ser Ala Cys Pro Ala Arg Leu
65 70 75 80
Arg Ser Cys Ile Pro
85

<210> 39084
<211> 114
<212> PRT
<213> A.fumigatus

<400> 39084
Ser Phe Leu Lys Ser Gln His Arg Ala Asn Pro Leu Gln Gly Val Ser
1 5 10 15
Asn Asp Gly Gln Lys Ala Ser Ile Ala Gly Ser Ile Ala Ala Ala His
20 25 30
Tyr Ile Arg Ser Ile Ala Pro Ser Tyr Gly Ile Pro Val Val Leu His
35 40 45
Thr Asp His Cys Ala Lys Lys Leu Leu Pro Trp Leu Asp Gly Met Leu
50 55 60
Asp Glu Asp Glu Arg Tyr Phe Lys Gln His Gly Glu Pro Leu Phe Ser
65 70 75 80
Ser His Met Ile Asp Leu Ser Glu Glu Pro Val Asp Tyr Asn Ile Glu
85 90 95
Thr Thr Ala Lys Tyr Leu His His Glu Thr Pro Asp Pro Arg Ile Pro
100 105 110
Arg Lys

<210> 39085
<211> 233
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (80),(84)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39085
Ala Ser Phe Pro Ser Pro Arg Asp Arg Arg Val Leu Asp Gln Lys Ile
1 5 10 15
Gln Leu Thr Arg His Ala Met Val Thr Asp Leu Glu Asn Leu Pro Glu
20 25 30
Gly Val Ser Phe Leu Pro Ser Asp Phe Ala Pro Lys Arg Lys Ile Ala
35 40 45
Arg His Met Arg Ile Thr Ile Phe Pro Lys Ile Ile Ala Ile His Phe
50 55 60
Ser Arg Ser Ile Phe Asp Arg Ser Ser Ser Thr Lys Asn Ala Ala Xaa
65 70 75 80
Val Ser Phe Xaa Glu Arg Leu Pro Leu Gly Gly Ile Leu Ser Gln Lys
85 90 95
Trp Phe Lys Leu Leu Ala Ile Val Cys His Lys Gly Ser His Asn Ser
100 105 110
Gly His Tyr Glu Ser Phe Arg Arg Asn Asn Leu Tyr Pro Pro Phe Ser
115 120 125
Thr Pro Asp Thr Phe Ser Ser Tyr Ala Gln Ser Arg Ala Thr Gln Arg
130 135 140
Gln Ser Leu Tyr Cys Thr Glu Ser Ser Ser Arg Gly Ser Arg Gly Arg
145 150 155 160
Arg Ala Arg Thr Leu Pro Asn Gln Pro Leu Phe Leu Asp Ile Ile Thr
165 170 175
Ile Pro Val Gly Gln Phe Ala Ser Leu Pro Ser Ser Phe Ser Asp Cys
180 185 190
Val Gly Glu Gly Leu Leu Thr Thr Cys Ile Ser Ala Glu Cys Ala Ser
195 200 205
Leu Ala Val Cys Ser Ala His His Ile Gln Leu Pro Cys Ile Leu Ser
210 215 220
Glu Tyr Pro His Gln Ile Val Arg Phe
225 230

<210> 39086
<211> 95
<212> PRT
<213> A.fumigatus

<400> 39086
Lys Val Leu Leu Phe Arg Asp Leu Ser Thr Tyr Leu Ser Leu Leu Pro
1 5 10 15
Ser Arg Ser Leu Ser Ser Ser Ser Ile Ser Ser Asn Ser Ile Pro Ser
20 25 30
Arg His Ser Ser Arg Ile Gln Thr Ile Val Thr Met Gly Ile Leu Asp
35 40 45
Lys Leu Ser Arg Lys Ser Gly Val Ile Val Gly Asp Asp Val Leu Arg
50 55 60

```
Leu Phe Glu Tyr Ala Gln Glu Lys Asn Phe Ala Ile Pro Ala Val Val
65                  70                  75                  80
Ser Leu Leu Ile Leu Leu Ile Ala Cys Ala Ile Arg Arg Gly Ala
                85                  90                  95
```

<210> 39087
<211> 238
<212> PRT
<213> A.fumigatus

<400> 39087

```
Ala Arg Ser Gly Ser Ser Cys Trp Pro Leu Ser Ala Thr Lys Ala Val
1               5                  10                  15
Ile Thr Ala Ala Thr Thr Asn Leu Ser Asp Val Thr Thr Ser Ile His
            20                  25                  30
Leu Ser Leu Leu Arg Ile Pro Leu Val Pro Thr Arg Lys Val Gly Gln
        35                  40                  45
Pro Ser Val Asn Pro Ser Thr Ala Pro Ser Pro Arg Leu Ala Ala Arg
    50                  55                  60
Gly Val Ala Glu Pro Glu Pro Ser Pro Ile Ser Leu Ser Ser Ser Thr
65                  70                  75                  80
Ser Leu Pro Ser Leu Ser Gly Ser Ser Leu Pro Ser Pro Ala Arg Ser
                85                  90                  95
Gln Thr Val Ser Val Arg Asp Ser Ser Gln Pro Ala Ser Gln Leu Asn
            100                 105                 110
Ala Pro Pro Ser Pro Ser Ala Arg Pro Thr Thr Ser Ser Ser Arg Val
        115                 120                 125
Ser Phe Gln Ser Ile Arg Thr Lys Ser Ser Gly Ser Lys Gln Asn Leu
    130                 135                 140
Ser Pro Pro Gly Ser Glu Thr Pro Ser Pro Ala Ser Asp Ser Gly Ala
145                 150                 155                 160
Trp Ser Lys Ser Gly Ser Arg Pro Ser Phe Met Ser Glu Arg Thr Thr
                165                 170                 175
Ser Lys Thr Pro Pro Glu Ala Pro Ala Leu Ser Ser Ser Arg Leu Arg
            180                 185                 190
Arg Arg Lys Lys Thr Asn Asp Arg Trp Trp Arg Ile Ser Asp Glu Lys
        195                 200                 205
Ile Lys Glu Cys Lys Thr Ser Asp Val Leu Gly Met Gln Lys Glu Val
    210                 215                 220
Tyr Leu Leu Phe Tyr Glu Met Glu Lys Gly Ser Phe Gly Ala
225                 230                 235
```

<210> 39088
<211> 82
<212> PRT
<213> A.fumigatus

<400> 39088

```
Ile Arg Leu His Ser Ala Tyr His Tyr Phe Arg Asp Val Ser Ile Cys
1               5                  10                  15
Ser Tyr Arg Ser Pro Arg Cys Ala His Trp Gly Pro Phe Lys Met Ser
            20                  25                  30
Asp Ala Ser Asn Asn Val Arg Phe Arg Leu Leu Asp Lys Ser Pro Glu
        35                  40                  45
Ser Gly Arg Phe Ile Gly Lys Lys Ser His Asp His Ala Ser Tyr Val
    50                  55                  60
```

```
Thr Tyr Leu Ala Thr Val Ser His Arg Ile Met Ser Lys Arg Lys Asp
65                  70                  75                  80
Tyr Arg


<210> 39089
<211> 336
<212> PRT
<213> A.fumigatus

<400> 39089
Cys Thr Arg Pro Phe Thr Ile Phe Arg Trp Lys Ala Asp Arg Thr Ala
1               5                  10                  15
Arg Thr Lys Arg Thr Thr Ile Cys Leu Thr Cys Ala Arg Leu Lys Asn
            20                  25                  30
Cys Cys Gln Cys Cys Met Leu Asp Leu Ser Phe Gly Leu Pro Ile Val
        35                  40                  45
Val Arg Asp Ala Ala Leu Lys Met Val Ala Pro Gly Pro Glu Ser Ser
    50                  55                  60
Ile Asn Arg Glu Tyr Tyr Ala Gln Glu His Glu Lys Glu Ile Gln Glu
65                  70                  75                  80
Gly Arg Gly Ala Val Glu Ala Tyr Glu Lys Thr Asp Glu Lys Ala Arg
                85                  90                  95
Glu Leu Leu Arg Arg Leu Ala Asn Ser Glu Pro Tyr Tyr Arg Lys Pro
            100                 105                 110
Arg Gln Gln Leu Glu Gly Pro Ser Asp Asp Ser Thr Glu Ala Gln Pro
        115                 120                 125
Thr Asp Ala Pro Val Val Gln Ser Arg Tyr Gly Asn Gly Pro Gly Pro
    130                 135                 140
Ile Arg Thr Ser Glu Ser Arg Arg Gly Thr Pro Leu Pro Gly Arg Gly
145                 150                 155                 160
Arg Gly Asn Met Arg Gly Gly Arg Ala Gly Arg Pro Phe Pro Gly Thr
                165                 170                 175
Ala Gln Ile Pro Pro Ser Pro Glu Asp Tyr Leu Pro Pro Ala Asp Pro
            180                 185                 190
Asn Ile Met Ser Leu Phe Val Thr Gly Val Glu Asp Asp Leu Pro Glu
        195                 200                 205
His Thr Leu Arg Thr Phe Phe Thr Gln Phe Gly Gln Leu Arg Ser Leu
    210                 215                 220
Ile Cys Ser His Arg Ala His Cys Ala Phe Ile Asn Phe Ala Thr Arg
225                 230                 235                 240
Glu Gly Ala Glu Ala Ala Ala Gln His Cys Lys Gly Lys Ala Val Ile
                245                 250                 255
Gln Gly Cys Pro Leu Arg Val Arg Trp Gly Lys Pro Lys Pro Leu Asp
            260                 265                 270
Asn Met Asp Arg Glu Glu Arg Met Lys Asn Ala Arg Glu Gly Arg Leu
        275                 280                 285
Thr Val Gln Ala Gln Lys Asp Gly Glu Ser Gly Gln Arg Ala Ile Thr
    290                 295                 300
Ala Ala Gly Glu Pro Ala Thr Glu Lys Pro Gln Ser Phe Val Val Ala
305                 310                 315                 320
Pro Pro Pro Gly Ser Gly Asp Val Gln Tyr Ser Ser Leu Ser Gly Asp
                325                 330                 335


<210> 39090
<211> 309
```

<212> PRT
<213> A.fumigatus

<400> 39090
Pro Leu Gln Ala Gln Asp His Tyr Ala Val Leu Gly Leu Ser Lys Tyr
1 5 10 15
Arg Trp Arg Ala Thr Pro Glu Gln Ile Lys Arg Ala His Arg Lys Lys
20 25 30
Val Leu Arg His His Pro Asp Lys Lys Ala Ala Leu Gly Asp Arg Asp
35 40 45
Glu Asn Asp Asn Phe Phe Lys Cys Ile Gln Lys Ala His Glu Leu Leu
50 55 60
Thr Asp Pro Val Lys Arg Arg Gln Phe Asp Ser Val Asp Glu Ala Ala
65 70 75 80
Asp Val Asp Pro Pro Ser Lys Lys Glu Val Ala Lys Arg Gly Phe Tyr
85 90 95
Lys Ala Trp Gly Pro Val Phe Glu Ala Glu Ala Arg Phe Ser Lys Val
100 105 110
Gln Pro Val Pro Gln Leu Gly Asp Glu Asn Ser Thr Gln Glu Glu Val
115 120 125
Glu Thr Phe Tyr Asn Phe Trp Tyr Asn Phe Asp Ser Trp Arg Ser Phe
130 135 140
Glu Tyr Leu Asp Glu Asp Val Pro Asp Asp Asn Glu Asn Arg Asp Gln
145 150 155 160
Lys Arg His Ile Glu Lys Lys Asn Ala Asn Ala Arg Arg Lys Arg Lys
165 170 175
Thr Glu Asp Ile Ala Arg Leu Arg His Leu Val Asp Asp Cys Leu Ala
180 185 190
Gln Asp Glu Arg Ile Lys Lys Phe Arg Gln Gln Ala Arg Ala Gly Lys
195 200 205
Asp Lys Lys Arg Leu Glu Lys Glu Ala Glu Ala Lys Arg Leu Ala Glu
210 215 220
Glu Lys Glu Lys Ala Arg Leu Glu Glu Glu Gln Arg Lys Lys Glu Ala
225 230 235 240
Glu Glu Ala Ala Lys Ala Glu Arg Glu Lys Asn Lys Lys Ala Lys Glu
245 250 255
Ala Ala Lys Asn Ala Ala Lys Lys Asn Lys Arg Ile Leu Lys Gly Ser
260 265 270
Val Lys Asp Val Asn Tyr Phe Ala Glu Ser Gly Glu Pro Ser Pro Ala
275 280 285
Gln Val Asp Ser Val Val Phe Thr Thr Gly Leu Glu Gly Ser Ala Val
290 295 300
Ala Leu Gly Ile Asn
305

<210> 39091
<211> 62
<212> PRT
<213> A.fumigatus

<400> 39091
Ser Asn Met Pro Pro Pro Gln Ile Lys Gln Asp Leu Asn Arg Ser Gly
1 5 10 15
Trp Glu Ser Thr Asp Phe Pro Ser Val Cys Glu Asn Cys Leu Pro Asp
20 25 30
Asn Pro Tyr Val Gln Met Leu Lys Glu Asp Tyr Gly Ala Glu Cys Lys

```
        35                  40                  45
Ile Val Gly Cys Thr Ser Cys Ser Val Tyr Val Asn Ile Tyr
    50                  55                  60

<210> 39092
<211> 133
<212> PRT
<213> A.fumigatus

<400> 39092
Ser Cys Lys Leu Thr Gly Val Gln Lys Arg His His Arg Thr Phe Ser
1               5                   10                  15
Glu Asp Glu Arg Ile Gln Ala Gln Gln Asn Val Lys Lys Thr Glu Asp
            20                  25                  30
Asp Asp Asp Asp Glu Ile Ser Glu Pro Glu Asp Pro Val Met Leu Ser
        35                  40                  45
Arg Asp Ala Lys Asp Trp Lys Val Cys Ser Leu Ile Val His Leu Thr
    50                  55                  60
Val Lys Ile Asp Ile Asp Leu Tyr Arg Pro Lys Ile Thr Thr Pro Phe
65                  70                  75                  80
Leu Val Cys Pro Ser Thr Ala Gly Val Leu Pro Pro Ser Arg Ser Ser
                85                  90                  95
Ala Pro Thr Ala Arg Arg Ser Ser Ala Ile Thr Pro Thr Arg Arg Pro
            100                 105                 110
Pro Trp Glu Thr Ala Met Arg Thr Thr Thr Phe Ser Ser Val Ser Arg
        115                 120                 125
Lys Arg Thr Ser Cys
    130

<210> 39093
<211> 187
<212> PRT
<213> A.fumigatus

<400> 39093
Val Thr Arg Thr Ala Pro Arg Arg Arg Ser Arg Pro Ser Thr Thr Ser
1               5                   10                  15
Gly Thr Thr Leu Thr Ala Gly Val His Ser Ser Thr Trp Met Arg Met
            20                  25                  30
Phe Pro Met Thr Thr Arg Thr Val Thr Lys Ser Val Ile Leu Arg Arg
        35                  40                  45
Arg Thr Pro Thr Pro Ala Ala Ser Ala Arg Pro Arg Ile Leu Pro Val
    50                  55                  60
Tyr Ala Thr Trp Leu Thr Thr Ala Leu Leu Arg Thr Arg Glu Ser Arg
65                  70                  75                  80
Ser Ser Ala Ser Arg Leu Val Pro Ala Arg Thr Arg Ser Val Ser Arg
                85                  90                  95
Arg Arg Pro Arg Gln Ser Val Trp Pro Arg Arg Arg Arg Arg Leu Val
            100                 105                 110
Ser Arg Arg Ser Ser Ala Arg Arg Arg Pro Lys Arg Pro Leu Arg Pro
        115                 120                 125
Ser Val Arg Arg Thr Arg Arg Pro Arg Lys Pro Pro Arg Met Leu Leu
    130                 135                 140
Arg Arg Thr Ser Val Phe Ser Arg Ala Leu Ser Arg Met Ser Thr Thr
145                 150                 155                 160
Leu Pro Ser Leu Ala Ser Leu Leu Pro Leu Arg Ser Thr Leu Ser Ser
```

```
                165                 170                 175
Ser Pro Arg Gly Trp Lys Asp Pro Arg Trp Arg
            180                 185

<210> 39094
<211> 101
<212> PRT
<213> A.fumigatus

<400> 39094
Ser Val Ile His Pro Phe Ser Thr Leu Thr Thr Ser Lys Ser Pro Ile
1               5                   10                  15
Ala Ile Ala Met Ala Pro Val Ala Leu Glu Gln Glu Asn His Leu Arg
            20                  25                  30
Asp Ala Glu Phe Asn Arg Ala Met His Gly Lys Ser Ala Gln Phe Arg
        35                  40                  45
Gly Gly Phe Ala Ala Leu Arg Gly Lys Asp Ser Ala Ser Gln Lys Ala
    50                  55                  60
Ala Val Asp Glu Tyr Phe Lys His Trp Asp Asn Lys Pro Ala Glu Asp
65                  70                  75                  80
Glu Thr Glu Glu Thr Arg Ala Val Ser Asn Leu Ser Leu Leu Pro Ser
                85                  90                  95
Gly Ile Leu Glu Leu
            100

<210> 39095
<211> 67
<212> PRT
<213> A.fumigatus

<400> 39095
Leu Gln Ser Lys Lys Ser Ser Ile Tyr Pro Ser Pro Ser Thr Tyr Ala
1               5                   10                  15
Lys Gln Ser Val Leu Cys Arg Pro Thr Tyr Pro His Thr His Arg Tyr
            20                  25                  30
Leu Ser Gln Gln Ser Ser Thr Asp Ala Ala His Ala Thr Glu Ser Thr
        35                  40                  45
Leu Ser Met Cys Arg Phe Pro Asp Phe Pro Glu Ile Glu Val Ile Ala
    50                  55                  60
Thr Met Gln
65

<210> 39096
<211> 77
<212> PRT
<213> A.fumigatus

<400> 39096
Leu Met Phe Asn Arg Ser Leu Asp Cys Phe Asn Trp Gly Ile Arg Arg
1               5                   10                  15
His Gln Gln Leu Ser Val Ala Ala His Leu Gln Thr Trp Lys Ala Gln
            20                  25                  30
Thr Leu Pro Ser Thr Leu Thr Arg Lys Tyr Ser Val Lys Lys Tyr Val
        35                  40                  45
Trp Pro Asp Thr Thr Val Tyr Ile Ser Pro Glu Arg Leu Val Gln Thr
    50                  55                  60
```

```
Pro Tyr Trp Pro Ser Arg Thr Arg Pro Gln Ala Val Ala
65                  70                  75

<210> 39097
<211> 106
<212> PRT
<213> A.fumigatus

<400> 39097
Val Ser Gly Gln Val Arg Ala Arg Leu Thr Val Gln Val Gly Ser Ile
1               5                   10                  15
Asp Ala Leu Thr Glu Arg Gly Gly Ile Ser Lys Thr Phe Val Gly Leu
            20                  25                  30
Ile Leu Leu Pro Ile Val Gly Asn Ala Ala Glu His Ala Thr Ala Val
        35                  40                  45
Thr Val Ala Cys Lys Asp Lys Met Asp Leu Ser Ile Gly Val Ala Val
    50                  55                  60
Gly Ser Ser Met Gln Ile Ala Leu Leu Val Leu Pro Leu Ile Ile Val
65                  70                  75                  80
Ile Gly Trp Ile Met Gly Met Cys Tyr Ser Ser Asn Thr Leu Leu Thr
                85                  90                  95
Val Thr Asp Trp Gln Lys Asp Ser Arg Ile
            100                 105

<210> 39098
<211> 116
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (97)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39098
Met His His Ser Gly Arg Cys Ser Ile Val Trp Lys Pro Asp Thr Thr
1               5                   10                  15
Pro Thr Asp Asn Asn Ser Asn Ala Val Glu Leu Ile Val Ala Ile Ile
            20                  25                  30
Ala Leu Val Asp Lys Glu Val Leu Ile Val Gln Thr Ser Leu Ile Gly
        35                  40                  45
Ser Met Leu Ser Asn Leu Leu Leu Val Met Gly Met Cys Phe Phe Phe
    50                  55                  60
Gly Gly Val Asn Arg Leu Glu Gln His Phe Asn Pro Val Val Ala Gln
65                  70                  75                  80
Thr Ala Ala Ser Leu Leu Ala Leu Ala Val Ala Ser Leu Ile Ile Pro
                85                  90                  95
Xaa Ala Phe His Ala Trp Ser Gly Gly Ala Ser Ile Arg Pro Gln Ile
            100                 105                 110
Arg Lys Phe Asp
        115

<210> 39099
<211> 148
<212> PRT
<213> A.fumigatus
```

<400> 39099
Leu Val Gln Pro Glu Pro Trp Glu Ser Leu Pro Cys Arg Glu Val Arg
1 5 10 15
Leu Leu Ala Met Arg Arg Gly Leu Ser Leu Thr Asn Ala Gly Thr Ser
20 25 30
Ile Ile Leu Leu Phe Val Tyr Gly Cys Tyr Leu Phe Phe Gln Leu Lys
35 40 45
Ser His Thr Glu Ile Tyr Asn Arg Pro Ser Pro Lys Val Glu Lys Arg
50 55 60
Arg Gln Lys Val Ser Glu Gly Asp Ala Ser Arg Gly Leu Ala Gln Ile
65 70 75 80
Gly Lys Met Thr Ala Thr Met Gly Gly Gln Asn Ala Gln Gln Met Lys
85 90 95
Ile His Glu Glu Asp Asp Glu Glu Glu Gln Pro Gln Leu Ser Ile Trp
100 105 110
Val Ala Val Leu Thr Leu Ala Ile Ser Thr Ala Phe Val Ala Leu Cys
115 120 125
Ala Glu Phe Met Val Ser Leu Met His His Phe Glu Cys Pro Val Arg
130 135 140
Ser Gly Leu Asp
145

<210> 39100
<211> 279
<212> PRT
<213> A.fumigatus

<400> 39100
Gly Val Ile Pro Arg Ala Phe Arg Ile Ser Ser Gly Arg Arg Gly Gly
1 5 10 15
Arg Pro Gly Leu Arg Leu Ile Gly Glu Gly Asp Ala Pro Leu Val Trp
20 25 30
Ser Leu Ile Ser Ser Ala Asn Gly Ser Leu Leu Glu Leu Ile Ser Ile
35 40 45
Pro Phe Asn Cys Arg Ile Ser Ala Met Gly Val Asp Gly Ala Gly Arg
50 55 60
Ser Thr Ser Ser Ala Leu Lys Thr Ala Ile Leu Ala Ser Ile Ser Lys
65 70 75 80
Ser Gly Trp Asn Ser Ser Gln Pro Arg Ser Ser Arg Gly Leu Tyr Pro
85 90 95
Ser Pro Cys Cys Arg Ala Lys Ala Ala Ala Val Asp Glu Pro Tyr Arg
100 105 110
Pro Arg Leu Cys Asp Phe Ser Leu Leu Arg Arg Ala Asp Gly Glu Val
115 120 125
Val Gly Ala Gly Gly Gly Gly Gly Gly Gly Gly Arg Arg Thr Cys Cys
130 135 140
Asp Ser Ser Ser Gly Leu Ala Met Gly Ser Gly Ser Gly Ser Gly Ser
145 150 155 160
Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Asp Ser Gly Ser
165 170 175
Gly Ser Gly Ser Gly Ala Gly Ser Gly Ala Gly Arg Leu Arg Glu Asp
180 185 190
Glu Val Arg Leu Met Gly Val Arg Leu Ile Leu Gly Gly Ser Ser Thr
195 200 205
Ser Ile Ser Thr Tyr Leu Pro Pro Pro Pro Gly Leu Pro Gly Met Tyr

```
    210                 215                 220
Leu Arg Phe Phe Arg Gly Gly Pro Ser Leu Ala Ser Glu Phe Gly Pro
225                 230                 235                 240
Leu Arg Ala Thr Phe Gly Pro Phe Arg Glu Ala Leu Pro Ala Asp Lys
                245                 250                 255
Arg Tyr Phe Asp Glu Glu Tyr Gly Ala Ile Leu Lys Glu Val Arg Glu
            260                 265                 270
Ile Ala Glu Thr Asn Arg Lys
        275
```

<210> 39101
<211> 97
<212> PRT
<213> A.fumigatus

<400> 39101

```
Tyr Gln Pro Val Gln Pro Glu Pro Thr Phe Pro Pro Gln Ala Glu Glu
1               5                   10                  15
Pro Leu Thr Thr Leu His Gln Ser Leu Ser Leu Ser Ser Thr Asp Gln
            20                  25                  30
Met Glu Lys Met Gln Thr Ala Thr Val Pro Val Asp Pro Gly Ala Gln
        35                  40                  45
Ser Val Arg His Ile Thr Thr Asn Thr Ser Glu Phe Ser Ala Ala Asn
    50                  55                  60
Ala Tyr Ala Ala Asn Thr Met Ala Asn Gly Lys Asp Phe Phe Leu Glu
65                  70                  75                  80
Leu Arg Lys Gln Val Thr Ala Leu Arg Gln Gly Ala Thr Val Pro Gly
                85                  90                  95
Gly
```

<210> 39102
<211> 609
<212> PRT
<213> A.fumigatus

<400> 39102

```
Phe Gly Phe Ser Ala Lys His Arg Thr Ala Trp Lys Leu Tyr Ala Trp
1               5                   10                  15
Tyr Leu Arg Leu Ser Gly Glu Pro Asn Gly Thr Pro Phe Arg Asp Ala
            20                  25                  30
Leu Leu Ser Tyr Phe Arg Leu Val Ser Ala Ile Ser Arg Thr Ser Phe
        35                  40                  45
Arg Met Ala Pro Tyr Ser Ser Ser Lys Tyr Arg Leu Ser Ala Gly Arg
    50                  55                  60
Ala Ser Arg Lys Gly Pro Lys Val Ala Leu Lys Gly Pro Asn Ser Glu
65                  70                  75                  80
Ala Ser Glu Gly Pro Pro Leu Lys Lys Arg Arg Tyr Ile Pro Gly Arg
                85                  90                  95
Pro Gly Gly Gly Gly Arg Tyr Val Glu Ile Asp Val Asp Glu Pro Pro
            100                 105                 110
Lys Ile Lys Arg Thr Pro Ile Arg Arg Thr Ser Ser Ser Arg Ser Arg
        115                 120                 125
Pro Ala Pro Glu Pro Ala Pro Glu Pro Glu Pro Glu Pro Glu Ser Glu
    130                 135                 140
Pro Glu Pro Glu Pro Glu Pro Glu Pro Glu Pro Glu Pro Glu Pro Glu
```

```
145                 150                 155                 160
Pro Glu Pro Ile Ala Lys Pro Glu Leu Glu Ser Gln Gln Val Leu Leu
                165                 170                 175
Pro Pro Pro Pro Pro Pro Pro Pro Ala Pro Thr Thr Ser Pro Ser Ala
            180                 185                 190
Arg Leu Arg Arg Glu Lys Ser Gln Ser Arg Gly Arg Tyr Gly Ser Ser
        195                 200                 205
Thr Ala Ala Ala Leu Ala Leu Gln Gln Gly Asp Gly Tyr Lys Pro Arg
    210                 215                 220
Glu Glu Arg Gly Trp Glu Glu Phe His Pro Asp Leu Asp Ile Asp Ala
225                 230                 235                 240
Lys Ile Ala Val Phe Ser Ala Glu Glu Val Asp Arg Pro Ala Pro Ser
                245                 250                 255
Thr Pro Ile Ala Glu Ile Leu Gln Leu Asn Gly Ile Asp Ile Asn Ser
            260                 265                 270
Ser Lys Asp Pro Leu Ala Glu Leu Ile Lys Leu His Thr Ser Gly Ala
        275                 280                 285
Ser Pro Ser Pro Ile Lys Arg Lys Pro Gly Arg Pro Pro Arg Arg Pro
    290                 295                 300
Glu Asp Ile Leu Asn Ala Leu Gly Ile Thr Pro Gln Pro Lys Ala Ile
305                 310                 315                 320
Pro Pro Pro Gly Pro Asn Pro Arg Glu Arg Leu Thr Leu Pro Lys Pro
                325                 330                 335
Ser Phe Arg Leu Arg Asp Pro Phe Val Phe Tyr Asp Gln Pro Gly Val
            340                 345                 350
Gly Gln Arg Asn Tyr Val Asp Arg Thr Met Ala Ser Val Gly Tyr Gln
        355                 360                 365
Glu Ser Asp Leu Phe Val Arg His Glu Arg Gln Met Ile Arg Met Thr
    370                 375                 380
Glu Gly Ala Gln Glu Asp Asp Leu Asp Ile Ile Asn Pro Pro Thr Ser
385                 390                 395                 400
Glu Gly Glu Val Asn Ala Ser Val Gly Arg Val Glu Tyr Asp Met Asp
                405                 410                 415
Glu Gln Asp Glu Lys Trp Leu Glu Asp Tyr Asn Ala Lys Arg Arg Glu
            420                 425                 430
Glu Gln Leu Glu Pro Ile Lys Pro Ala Val Phe Glu Ile Thr Met Thr
        435                 440                 445
Lys Ile Glu Lys Glu Trp His Thr Leu Glu Lys Arg Ile Pro Lys Pro
    450                 455                 460
Asn Pro Lys Pro Pro Gln Thr Gln Arg Pro Arg Ser Ser Ser Ala Ala
465                 470                 475                 480
Ala Val Asn Gly Glu Thr Thr Ala Pro Gly Glu Glu Gln Asp Ser Lys
                485                 490                 495
Cys Ala Ile Cys Asp Asp Gly Asp Cys Glu Asn Ser Asn Ala Ile Val
            500                 505                 510
Phe Cys Asp Gly Cys Asp Leu Ala Val His Gln Glu Cys Tyr Gly Val
        515                 520                 525
Pro Phe Ile Pro Glu Gly Gln Trp Leu Cys Arg Lys Cys Gln Leu Ile
    530                 535                 540
Gly Arg Gly Ser Val Asn Cys Ile Phe Cys Pro Asn Thr Glu Gly Ala
545                 550                 555                 560
Phe Lys Gln Thr Thr Ser Ser Lys Trp Ser His Leu Leu Cys Ala Ile
                565                 570                 575
Trp Ile Pro Glu Val Ser Leu Gly Asn Pro Ser Leu Met Glu Pro Val
            580                 585                 590
Thr Asp Val Gly Leu His His Gly Ala Gly Arg Ile Arg Gly Gly Ala
```

595 600 605

Met

<210> 39103
<211> 447
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (4)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39103

```
Gly Trp Phe Xaa Thr Pro Trp Ser Arg Ser Pro Tyr Ser Asp Asp Thr
1               5                  10                  15
Ser Val Ala Ile Val Glu Lys Asn Asp Arg Cys Arg Asp Ile Ser Thr
            20                  25                  30
Arg Ile His Phe Leu Glu Asn Val Thr Ala Asp Thr Arg Glu Tyr Arg
        35                  40                  45
Gly Ile His Pro Ile Leu Ala Leu Glu Ser His Gln Glu Asn Leu Ala
    50                  55                  60
Lys Leu Val Asp Lys Ala Leu Lys His Leu Pro Pro Val Ser Glu Asp
65                  70                  75                  80
Gly Glu Asp Thr Ser Lys Leu Leu Lys Leu Ser Asp Gly Ser Gln Arg
                85                  90                  95
Arg Lys Pro Asp Phe Val Ser Val Thr Arg Gly Pro Gly Met Arg Ala
            100                 105                 110
Asn Leu Phe Thr Gly Leu Asp Thr Ala Lys Gly Leu Ser Val Ala Trp
        115                 120                 125
Gln Ile Pro Phe Val Gly Val His His Met Gln Ala His Leu Leu Thr
    130                 135                 140
Pro Arg Leu Val Ser Ala Met Asp Arg Ala Gln Gln Gly Pro Asp Val
145                 150                 155                 160
Thr Ser Ala Asn Pro Pro Leu Thr Pro Glu Phe Pro Phe Leu Ser Ile
                165                 170                 175
Leu Val Ser Gly Gly His Ser Met Leu Val Glu Ser Thr Ser Ile Thr
            180                 185                 190
Asp His Thr Ile Met Ala Ser Thr Ala Asp Ile Ala Ile Gly Glu Ala
        195                 200                 205
Leu Asp Lys Ala Ala Arg Glu Ile Ile Ala Pro Ser Val Leu Asn Glu
    210                 215                 220
Ala Lys Thr Thr Met Tyr Gly Lys Leu Leu Glu Gln Phe Ala Phe Pro
225                 230                 235                 240
Asn Gly Ser Ala Asp Trp Ser Asn Tyr Cys Ala Pro Lys Thr Arg Gly
                245                 250                 255
Glu Glu Leu Ile Lys Gln Pro Ser Pro Trp Gly Trp Thr Leu Thr Ser
            260                 265                 270
Pro Phe Ala Asn Thr Arg Gln Leu Gln Tyr Ser Phe Ser Phe Leu Pro
        275                 280                 285
Ser Met Ile Asn Lys Leu Met Gly Ala Lys Lys Thr Ala Gly Lys Glu
    290                 295                 300
Val Ser Asp Glu Glu Arg Val Ala Leu Ala Arg Glu Ala Met Arg Val
305                 310                 315                 320
Cys Phe Glu His Leu Gly Ser Arg Thr Ile Ile Ala Leu Glu Glu Leu
```

```
                325                 330                 335
Gln Gln Lys Ala Arg Asn Lys Gly Val Pro Asp Val Asn Thr Leu Val
            340                 345                 350
Ile Ser Gly Gly Val Ala Ala Asn Arg Phe Leu Met Ala Val Leu Arg
        355                 360                 365
Ser Phe Leu Asp Val Arg Gly Phe Gly His Val Glu Ile Val Ala Pro
    370                 375                 380
Pro Pro Tyr Leu Cys Thr Asp Asn Ala Ala Met Ile Gly Trp Ala Gly
385                 390                 395                 400
Ile Glu Met Phe Glu Ala Gly Phe Ser Thr Asp Leu Gly Gly Arg Ala
                405                 410                 415
Leu Arg Lys Trp Ala Leu Asp Pro Arg Ala Glu Asp Gly Gly Leu Leu
            420                 425                 430
Gly Ala Asp Gly Trp Met Ile Lys Lys Gly Lys Asp Thr Val Tyr
        435                 440                 445
```

<210> 39104
<211> 497
<212> PRT
<213> A.fumigatus

```
<400> 39104
Ile Met Ala Arg Glu Gln Asp Leu Leu Gln Trp Ser Ser Gln Phe Phe
1               5                   10                  15
Val Ala Ala Pro Gln Arg Thr Pro Lys Leu Pro Gly Asp Lys Ile Thr
            20                  25                  30
Leu Pro Gln Ser Ala Leu Glu Gln Leu Leu Ala Ala Ala Pro Leu Ser
        35                  40                  45
Asp Val Ser Pro Gln Gly Ser Leu Arg Gln Tyr Thr Ser Thr Phe Asp
    50                  55                  60
Pro Phe Asn Pro His Thr Phe Ala Ala Glu Ser Arg Ala Arg Ala Gln
65                  70                  75                  80
Gln Leu Asp Arg Gln Lys Gln Leu Pro His Pro Leu Thr Phe Arg Leu
                85                  90                  95
Val Asn Pro Asn Asn Glu Arg Ala Ile Tyr Ala Gly Ile Arg Glu Phe
            100                 105                 110
Ser Ala Ala Glu Gly Glu Val Gly Leu Ser Gly Phe Leu Arg Gln Ala
        115                 120                 125
Leu Asp Ile Glu Asp Glu Pro Phe Gln Leu Gln Thr Gly Glu His Gly
    130                 135                 140
Thr Glu Thr Ala His Ser Pro Asp Leu Asn Asn Arg Glu Gly Ser Gly
145                 150                 155                 160
Ser Val Arg Ser Thr Arg His Ser Thr Pro Thr Ile Thr Val His Ala
                165                 170                 175
Lys Gln Leu Pro Lys Gly Thr Tyr Val Arg Leu Arg Pro Leu Glu Ala
            180                 185                 190
Gly Tyr Asp Pro Glu Asp Trp Lys Ala Leu Leu Glu Arg Tyr Leu Arg
        195                 200                 205
Asp Asn Phe Thr Thr Leu Thr Ile Gly Glu Leu Leu Ser Val Ser Gly
    210                 215                 220
Asn Arg Asn Glu Arg Phe Arg Phe Leu Val Asp Lys Val Glu Pro Glu
225                 230                 235                 240
Gly Asp Gly Ile Cys Val Val Asp Thr Asp Leu Glu Val Asp Ile Val
                245                 250                 255
Ala Leu Thr Glu Asp Gln Ala Arg Glu Thr Leu Gln Arg Arg Leu Glu
            260                 265                 270
```

```
Lys Ala Ser Arg Ala Pro Gly Thr Lys Gly Gly Ser Ser Ile Gly Gly
        275                 280                 285
Val Leu Ala Leu Gly Glu Thr Val Thr Gly Gln Val Ile Pro Gly Glu
    290                 295                 300
Tyr Val Asp Tyr Glu Leu Ser Arg Trp Asp Gly Glu Glu Thr Ile Glu
305                 310                 315                 320
Val Glu Val Glu Gly Ile Asp Asp Ala Val Val Tyr Leu Phe Ala Ser
                325                 330                 335
Pro Phe Ser Ser His Gln Arg Asn Arg Pro Arg Leu Asp Glu His Val
            340                 345                 350
Phe Ala Asp Phe Ser Ser Gln Pro Ser Lys Lys Leu Arg Ile Arg Pro
        355                 360                 365
Thr Asn Ile Glu Leu Asp Gly Ala Glu Ala Leu Tyr Leu Ser Val His
    370                 375                 380
Ala Tyr Ser Gln Thr Glu Ala Gly Ala Gly Met Ala Ser Ser Gln Thr
385                 390                 395                 400
Leu Pro Leu Arg Tyr Ser Met Arg Val Val Gln Ser Ser Ser Ala Ile
                405                 410                 415
Gln Arg Glu Gln Thr Ala Ala Gln Leu Asp Thr His Glu Pro Gly Asp
            420                 425                 430
Val Gln Cys Lys Asn Cys His Gln Trp Val Pro Gln Arg Thr Leu Val
        435                 440                 445
Leu His Glu Asn Phe Cys Leu Arg Asn Asn Val Leu Cys Pro Gln Cys
    450                 455                 460
Gly Asn Val Phe Gln Lys Arg Ser Pro Glu Trp Asp Asn His Trp His
465                 470                 475                 480
Cys Pro His Asp Ser Ser His Gly Asn Asp Ile Pro Asn Gln Arg Trp
                485                 490                 495
Ala
```

<210> 39105
<211> 409
<212> PRT
<213> A.fumigatus

<400> 39105

```
Arg His Val Leu Ser Asn Ser Leu Ile Leu Asp His Met Ala Pro Tyr
1               5                   10                  15
Leu Ser Ile Ser Gly Leu Leu Ser Leu Ala Ser Thr Cys Arg Ala Leu
            20                  25                  30
Arg Ser Val Val Met Glu Thr Pro Tyr Val Phe Arg His Leu Asp Leu
        35                  40                  45
Ser Arg Cys Arg Gly Ala Gln Leu Gln Arg Ser Ser Ala Asp Asn Gly
    50                  55                  60
Arg Ala Gln Ala Leu Gly Asn Glu Pro Met Asp Glu Ser Leu Thr Glu
65                  70                  75                  80
Asp Glu Phe Tyr Ser Ala Pro Leu Lys Lys Ile Phe Ala Lys Leu Glu
                85                  90                  95
His Lys Ser Leu Leu Gln Asp Val Arg Thr Leu Ile Leu Asp Gly Leu
            100                 105                 110
Pro Val Pro Ala Asp Leu Ile Ala Asp Ile Leu Leu Asn Asp Arg Phe
        115                 120                 125
Asn Val Asn Ile Leu Ser Ile Arg Gly Cys Gln His Leu Asn Glu Arg
    130                 135                 140
Lys Leu Met Gln Val Leu Gln Tyr Ala Val Arg Pro Thr Arg Pro Ala
```

```
145                 150                 155                 160
Gly Thr Pro Arg Val Lys Gly Ile Tyr Phe Phe Thr Pro Leu Asn Leu
                165                 170                 175
Ala Gln Ala Ala Ala Arg Ser Arg Tyr Arg Lys Trp Trp Ser Ser Arg
            180                 185                 190
Cys Ala Gly Gln Thr Pro Val Glu Ala Arg Pro Ser Ser Arg Gln His
        195                 200                 205
Asp Gln Gly Arg Glu Thr Asp Arg Gln Thr Val Trp Tyr Ser Pro Ser
    210                 215                 220
Gly Lys Leu Leu Thr Ala Ser Ile Glu Glu Gly Trp Ala Gln Thr Ile
225                 230                 235                 240
Gln Lys Cys His Gly Ile Ile Ala Phe Asp Ala Val Leu Cys Arg Gly
                245                 250                 255
Pro Arg His Asp Pro Asn Ala Met Leu Val Gly Gln Asp Gly Ser Gln
            260                 265                 270
Arg Glu Gly Arg Leu Leu Gly Pro Ala Ile Ala Thr Ile Ala Leu Gly
        275                 280                 285
Ser Arg Gly Cys Asp Gly Cys His Ser Ser Pro Glu Gly Pro Ala Ile
    290                 295                 300
Trp Gly Gln Ser Pro Glu Glu Thr Phe Pro Leu Leu Thr Pro Pro Pro
305                 310                 315                 320
Phe His Ser Ser Ser Val Val Ala Ala Lys Arg Pro Ser Leu Phe Pro
                325                 330                 335
Gly Ala Asp His Pro Ala Leu Ile Ala Arg Cys Ala Asp Cys Leu Thr
            340                 345                 350
Asp Arg Trp Cys His Arg Cys Asn Lys Trp Phe Cys Ala Asp Cys Leu
        355                 360                 365
Pro Asn Pro Gln Arg Val Ser Ser Asn Leu Ser Pro His Gln Thr Ala
    370                 375                 380
Leu Arg Ala Ser Leu Gly Thr Asn Asp Ser Ser Gln Val Cys Lys Leu
385                 390                 395                 400
Glu Cys Ser Tyr Ser Glu Pro Arg Arg
                405
```

<210> 39106
<211> 61
<212> PRT
<213> A.fumigatus

<400> 39106

```
Asn Lys Ala Ser Gly Tyr Ala Thr Lys Pro Leu Ile Pro Arg Ile Arg
1               5                   10                  15
Ala Thr Ala Gln Asn Ile Pro Glu Glu Leu Tyr Val His Gln Pro Thr
            20                  25                  30
Ala Ala Val Val Asn Lys Tyr Pro Asn Arg Val Ser Ile Gly Ile Arg
        35                  40                  45
Ile Pro Thr Arg Leu Val Lys Thr Lys Gly Arg Lys Gln
    50                  55                  60
```

<210> 39107
<211> 98
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE

<222> (38),(72),(82),(98)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39107
Gly Ser Arg Ile Ser Ala Phe Glu Leu Gly Trp Tyr Cys Glu Val Gln
1 5 10 15
Arg Lys Ser Pro Trp Ala Asn His Glu Glu Val Leu Lys Val Gly Trp
20 25 30
Ser Lys Leu Arg Trp Xaa Ser Gln Ser Gly His Arg His Glu Ile Gly
35 40 45
Tyr Asn Gly Phe Trp Arg Gln Val Thr Gly Leu Ala Glu Asn Ala Ser
50 55 60
Pro Thr Phe Arg Ala Asp Ala Xaa Asp Ser Val Lys Ser Ser Ile Phe
65 70 75 80
His Xaa Trp Phe Ala Asp Arg Arg Asp Asn Leu Leu Leu Pro Ser Arg
85 90 95
Gly Xaa

<210> 39108
<211> 215
<212> PRT
<213> A.fumigatus

<400> 39108
Tyr Ala Lys Ala Phe Asn Glu Leu Ala Gly Trp Gly Pro Leu Lys Gly
1 5 10 15
Asp Val Ser Phe Trp Lys Ser Glu Val Glu Ala Gln Gly Ala Ile Pro
20 25 30
Ile Pro Ile Pro Gly Ile Glu Gly Asp Ser Gly Ile Ser Phe Thr Ile
35 40 45
Gly Phe Arg Ala Gly Leu Leu Tyr Pro Leu Gly Leu Asp Ser Asp Ser
50 55 60
Arg Pro Gln Leu Ser Arg Ile Asn Asp Arg Phe Val Leu Gly Gly Pro
65 70 75 80
Thr Asp Val Arg Gly Phe Arg Leu Cys Gly Leu Gly Pro His Asp Gly
85 90 95
Ala Asp Ala Val Gly Gly Asp Val Tyr Ala Ala Gly Ser Ala Asn Leu
100 105 110
Phe Leu Pro Leu Pro Arg Val Gly Ala Asp Lys Pro Leu Arg Leu Gln
115 120 125
Ala Phe Val Asn Gly Gly Arg Leu Leu Pro Leu Arg Thr Leu Gln Lys
130 135 140
Glu Ala Pro Thr Asn Ser Thr Glu Val Lys Asp Ala Met Thr Ala Thr
145 150 155 160
Ile Ser Glu Leu Gly Asn Gly Leu Pro Ser Val Ala Ala Gly Ile Gly
165 170 175
Leu Val Tyr Ala His Pro Val Ala Arg Phe Glu Leu Asn Phe Ser Leu
180 185 190
Pro Leu Val Leu Arg Lys Gly Glu Glu Gly Arg Lys Gly Leu Gln Leu
195 200 205
Gly Ile Gly Ile Asn Phe Leu
210 215

<210> 39109
<211> 145

<212> PRT
<213> A.fumigatus

<400> 39109
Ser Ser Ser Leu Leu Tyr Ile Leu Ala Ala Met Ala Gln Tyr Tyr Pro
1 5 10 15
Gln Gln Gln Pro Tyr Gly Ser Gln Ala Ser Pro Gln Asn Leu Gln Phe
20 25 30
Tyr Pro Ser Ser Tyr Thr Ser Val Ser Gly His Thr Thr Pro Ser Gln
35 40 45
Ala Thr Tyr Gly Gly Phe Gly Gly Pro Ser Gly Ser Thr Ala Gln Ala
50 55 60
Tyr Pro Val Gly Gly Val Gly Ser Gly Tyr Gly Gly Phe Gly Ser Pro
65 70 75 80
Ala Ala Gly Val Ser Gly Arg Met Gly Glu Gln Gly Gly Leu Arg Thr
85 90 95
Gly Trp Leu Ala Ala Phe Gly Thr Glu Gly Tyr Glu Gly Glu Pro Pro
100 105 110
Leu Leu Glu Glu Leu Gly Val Asn Phe Glu His Ile Arg Thr Lys Val
115 120 125
Gly Asn Gly Leu Ser Ser Gly Leu Ile Thr Gly Lys Arg Cys Val Cys
130 135 140
Val
145

<210> 39110
<211> 221
<212> PRT
<213> A.fumigatus

<400> 39110
Pro Glu Asn Val Val Phe Val Phe Lys Arg Lys Lys Ala Asp His Phe
1 5 10 15
Leu His Ser Leu Gln Thr Leu Thr Val Leu Asn Pro Phe Ala Arg Ile
20 25 30
Asp Gln His Leu Met Asp Asp Ser Asp Leu Tyr Gly Ala Leu Leu Tyr
35 40 45
Ile Val Leu Tyr Gly Thr Phe Leu Leu Leu Ser Gly Lys Val Phe Tyr
50 55 60
Gly Tyr Ile Tyr Gly Val Ala Phe Phe Gly Thr Val Val Leu His Leu
65 70 75 80
Ile Leu Ser Leu Met Ser Pro Ala Leu Asp Thr Ala Ser Ala Pro Asn
85 90 95
Ala Ala Asp Pro Ser Asn Tyr Asp Pro His His Lys Pro Thr Met Ser
100 105 110
Asp Ala Ser Ser Val Gly His Phe Ser Ala Thr Leu Thr Phe Pro Arg
115 120 125
Ser Ala Ser Val Leu Gly Tyr Cys Phe Leu Pro Leu Val Leu Thr Ser
130 135 140
Leu Val Gly Ile Leu Ile Pro Met Asp Thr Leu Phe Gly Tyr Leu Leu
145 150 155 160
Thr Thr Ala Ala Val Gly Trp Cys Thr Tyr Ser Ser Ser Gly Met Phe
165 170 175
Cys Ala Val Ala Arg Met Arg Gly Met Arg Gly Leu Val Ala Tyr Pro
180 185 190
Leu Ala Leu Phe Tyr Val Val Phe Gly Ile Met Gly Ile Phe Ser Ser

```
        195                 200                 205
Arg Gly Ser Gly Thr Leu Ala Ala Lys Thr Gly Ala Ala
    210                 215                 220
```

<210> 39111
<211> 85
<212> PRT
<213> A.fumigatus

<400> 39111

```
Glu Val Gly Glu Asn Met Leu Val Gln Pro Gly Ser Ile Ala Leu Met
1               5                  10                  15
Arg Gly Glu Trp Thr Arg Glu Gln Ile Asp Asn Cys Val Ile Tyr Ser
            20                  25                  30
Phe Asn Leu Asn Phe Asp Arg Leu Leu Ala Ile Pro Ser Ala Glu Phe
        35                  40                  45
Val Val Tyr Val Phe Ala Trp Asn His Leu Ser Ser Asp Cys Phe Ser
    50                  55                  60
Gln Gly Glu Asn Ser Ala Asn Gly Ala Ala Pro Phe Gly Ala Gly Ser
65                  70                  75                  80
Thr Arg Ser Phe Leu
                85
```

<210> 39112
<211> 93
<212> PRT
<213> A.fumigatus

<400> 39112

```
Ser Glu Glu Arg Lys Arg Pro Ser Asn Ala Leu Pro Asn Ala Gly His
1               5                  10                  15
Ile Gln Gly Leu Phe Thr Pro Asp Gly Cys Leu Gly Val Ser Glu Cys
            20                  25                  30
His Leu Pro Gln Thr Gly Asp Val Ala Tyr Phe Ser Thr Thr Arg Phe
        35                  40                  45
Thr Val Ser Gly Phe Gly Asn Phe Ser Cys Arg Met Glu Val Tyr Leu
    50                  55                  60
Ser Leu Ala Ile Leu Gly Met Ala Ala Glu Ala His Cys Ala Phe Glu
65                  70                  75                  80
Ala Arg Phe Ala Ser Ala Lys Tyr Pro Ala Ser Asn Trp
                85                  90
```

<210> 39113
<211> 116
<212> PRT
<213> A.fumigatus

<400> 39113

```
Thr Ala Glu Gly Ala Val Thr Leu Ser Lys Ala Ser Thr Thr His Phe
1               5                  10                  15
Phe Trp Asp Val Thr Ala Val Ile Met Leu Lys Leu Met Gly Ser Leu
            20                  25                  30
Val Leu Leu Ala Ser Ala Ala Glu Val Ile Ala Ser Pro Ala Ala Glu
        35                  40                  45
Pro Val Ala Pro Ser Thr Thr Leu Glu Lys Arg Ala Ser Cys Thr Phe
    50                  55                  60
```

```
Ser Gly Ser Asn Gly Ala Ala Ala Ala Met Ala Ser Gln Lys Ala Cys
65                  70                  75                  80
Ser Thr Ile Val Leu Ser Asn Val Ala Val Pro Ala Gly Thr Thr Leu
                85                  90                  95
Asp Leu Ser Asp Leu Ala Asp Gly Thr Thr Val Arg Thr Pro Ser Pro
            100                 105                 110
Thr Pro Thr Pro
        115
```

<210> 39114
<211> 227
<212> PRT
<213> A.fumigatus

<400> 39114

```
Val Thr Phe Glu Gly Glu Thr Thr Trp Gly Tyr Gln Glu Trp Ser Gly
1               5                   10                  15
Pro Leu Leu Lys Ile Ser Gly Lys Asn Ile Lys Val Lys Gly Ala Ser
            20                  25                  30
Gly Ala Thr Leu Asn Pro Asp Gly Ala Arg Trp Trp Asp Gly Gln Gly
        35                  40                  45
Gly Asn Gly Gly Lys Thr Lys Pro Lys Phe Phe Ala Ala His Asp Leu
    50                  55                  60
Thr Ser Ser Ser Ser Ile Thr Asp Leu His Ile Leu Asn Thr Pro Val
65                  70                  75                  80
Gln Ala Val Ser Ile Asn Gly Cys Asp Gly Leu Thr Ile Thr Asp Met
                85                  90                  95
Thr Ile Asp Asn Ser Ala Gly Asp Thr Gln Gly Gly His Asn Thr Asp
            100                 105                 110
Ala Phe Asp Ile Gly Ser Ser Ser Asn Ile Ile Ile Ser Gly Ala Lys
        115                 120                 125
Val Tyr Asn Gln Asp Asp Cys Val Ala Val Asn Ser Gly Thr Asp Ile
    130                 135                 140
Thr Phe Thr Gly Gly Leu Cys Ser Gly Gly His Gly Leu Ser Ile Gly
145                 150                 155                 160
Ser Val Gly Gly Arg Ser Asp Asn Thr Val Glu Asn Val Ser Phe Thr
                165                 170                 175
Asn Ser Gln Val Thr Asn Ser Asp Asn Gly Thr Ile Thr Ser Pro Arg
            180                 185                 190
Cys Leu Val Glu Gly Lys Leu Leu Thr Met Lys Gln Val Ser Ala Ser
        195                 200                 205
Arg Pro Pro Lys Gly Arg Leu Ala Gln Ser Arg Glu Ser Pro Thr Gln
    210                 215                 220
Ala Ser Pro
225
```

<210> 39115
<211> 236
<212> PRT
<213> A.fumigatus

<400> 39115

```
Ala Ser Thr Met Arg Phe Ala Ile Pro Leu Gly Ala Ala Cys Ala Trp
1               5                   10                  15
Ala Gly Val Ala Leu Ala Ala Leu Gln Ile Ala Glu Asp Phe Ser Ser
            20                  25                  30
```

```
Ile Thr Leu Asn Asn Asp Arg Phe Lys Ala Val Trp Ser Lys Ser Lys
        35                  40                  45
Gly Ser Val Val Asp Met Phe Leu Asp Gly Gln Asp Leu Leu Gly Pro
    50                  55                  60
Gln Ser Gly Ser Thr Gly Ile Gly Pro Tyr Leu Asp Cys Tyr Cys Val
65                  70                  75                  80
Pro Ser Gly Phe Tyr Thr Ala Gly Ala Thr Asn Pro Arg Met Gln Tyr
                85                  90                  95
Val Glu Gly Thr Asp Ser Thr Gly Thr Lys Tyr Ala Gly Val Ile Leu
            100                 105                 110
Asn Asp Thr Tyr Thr Pro Thr Gly Gln Gln Phe Gln Gln Tyr Trp Phe
        115                 120                 125
Leu Arg Asp Gly Glu Thr Gly Leu His Met Phe Ser Arg Leu Ala Tyr
    130                 135                 140
Tyr Asn Glu Thr Thr Pro Phe Leu Arg Asn Leu Gln Glu Phe Arg Thr
145                 150                 155                 160
Leu Phe Arg Pro Asn Thr Gln Leu Trp Thr His Leu Thr Ser Ser Glu
                165                 170                 175
Leu Gln Thr Ala Pro Leu Pro Ser Lys Asn Ala Val Ser Lys Gln Val
            180                 185                 190
Val Val Gln Asp Ala Thr Trp Arg Phe Asn Asn Thr Pro Asp Asp Ala
        195                 200                 205
Tyr Tyr Thr Gln Phe Ser Glu Tyr Phe Thr Lys Tyr Thr Phe Ser Asn
    210                 215                 220
Arg Lys Ser His Ser Leu Met Trp Cys Asp Leu Ala
225                 230                 235
```

<210> 39116
<211> 65
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (13)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39116

```
Gln Pro Leu Gly Leu Val Phe Ala Pro Ser Gly Gln Xaa Ser Leu Gly
1               5                   10                  15
Gln Val Ser Glu Leu Ala Tyr Trp Met Gln Glu Ser Tyr Leu Lys Glu
            20                  25                  30
Ser Ser Pro Gly Leu Phe Leu Gln Gln Trp Thr Pro Glu Tyr Asp Phe
        35                  40                  45
Leu Thr Arg Gly Leu Thr Gly Ala Thr Phe Asp Asn Pro Phe Gly Thr
    50                  55                  60
Ala
65
```

<210> 39117
<211> 406
<212> PRT
<213> A.fumigatus

<400> 39117

```
Gly Pro Leu His Ser Asp Leu Thr Val Asp Gly Ile Val Tyr Asn Tyr
```

```
1               5                   10                  15
Ile Val Ser Asn His His Gly Glu Cys Thr Pro Asn Ile Thr Asn Gly
            20                  25                  30
Phe Asp Arg Thr Phe Gly Pro Gln Phe Tyr Leu Phe Asn Gly Gly Lys
        35                  40                  45
Gly Ser Thr Ser Ser Leu His Asp Leu Arg Ser Glu Ala Ala Lys Leu
    50                  55                  60
Ala Asp Pro Ser Trp Asn Ala Glu Phe Tyr Asp Ser Ile Ala Lys His
65                  70                  75                  80
Val Val Gly Tyr Val Pro Ser Ser Lys Arg Gly Ser Val Asp Gly Arg
                85                  90                  95
Ile Lys Leu Pro Lys Gly Ala Ser Asn Pro Ile Ala Ile Leu Thr Val
            100                 105                 110
Asp Gly Gln Tyr Phe Gln Asp Asn Ser Val Val Pro Ser Ser Tyr Gln
        115                 120                 125
Tyr Trp Thr Asp Ile Asp Thr Ser Gly Arg Phe Arg Ile Asp Arg Val
    130                 135                 140
Val Glu Gly Lys Tyr Arg Leu Thr Val Tyr Ala Asp Gly Ile Phe Gly
145                 150                 155                 160
Asp Phe Val Arg Asp Gly Val Thr Val Arg Ala Gly Lys Thr Thr Thr
                165                 170                 175
Val Lys Glu Lys Trp Asp Ala Glu Ser Ala Gly Lys Glu Ile Trp Arg
            180                 185                 190
Leu Gly Thr Pro Asp Lys Ser Ser Gly Glu Phe Arg His Gly Val Ala
        195                 200                 205
Arg Asp Pro Thr His Pro Leu His Pro Pro Glu Tyr Leu Ile Tyr Trp
    210                 215                 220
Gly Ala Tyr Asp Trp Gln Ser Asp Phe Pro Lys Gly Ile Asp Tyr Thr
225                 230                 235                 240
Ile Gly Ser Ser Asp Pro Ala Thr Asp Phe Asn Thr Val His Trp Ser
                245                 250                 255
Val Phe Gly Pro Thr Pro Asp Asn Pro Asn Val Glu Tyr Asn Thr Thr
            260                 265                 270
His Asp Trp Lys Ile Asn Phe Ser Leu Thr Lys Lys Gln Leu Arg Asn
        275                 280                 285
Ser Lys Lys Ala Thr Leu Thr Ile Gln Leu Ala Gly Ala Lys Thr Ala
    290                 295                 300
Ser Gly Asn Thr Asp Glu Tyr Lys Ala Ser Glu Pro Tyr Ile Asn Leu
305                 310                 315                 320
Ile His Glu Ser Tyr Ile Asn Asp Gln Lys Glu Pro Leu Ser Phe Val
                325                 330                 335
Ile Gly Phe Asn Gln Ser Ser Ser Cys Ile Val Arg Ser Ala Val Ser
            340                 345                 350
Cys Tyr Gln Val Arg Ser Arg Met Glu Phe Pro Ala Asp Trp Leu Lys
        355                 360                 365
Val Gly Glu Asn Thr Leu Thr Leu His Leu Pro Tyr Asn Ala Thr Asp
    370                 375                 380
Thr Glu Thr Ala Ile Leu Pro Ala Thr Val Tyr Val Gln Tyr Asp Ala
385                 390                 395                 400
Leu Arg Leu Glu Leu Asp
                405
```

<210> 39118
<211> 93
<212> PRT
<213> A.fumigatus

<400> 39118
Lys Met Thr Val Ile Lys Leu Thr Leu Pro Arg Tyr Gly Ile Leu Ile
1 5 10 15
Glu Gln Asn Tyr Asp Gly Gly Asp Leu Lys Gly Asp Pro Thr Ser Gly
20 25 30
Ile Pro Ile Thr Asp Leu Thr Met Gln Asn Ile Ser Gly Lys Gly Ala
35 40 45
Val Ala Ser Ser Gly Tyr Asn Ile Ala Ile Val Cys Gly Ser Gly Ala
50 55 60
Cys Ser Asn Trp Thr Trp Lys Ser Val Glu Val Thr Gly Gly Lys Thr
65 70 75 80
Tyr Gly Ser Cys Lys Asn Val Pro Ser Val Ala Gln Cys
85 90

<210> 39119
<211> 257
<212> PRT
<213> A.fumigatus

<400> 39119
Asn Val Cys Gln Gly His Arg Gly His Gly Leu Asp Pro Val Leu Cys
1 5 10 15
Cys Asn Ile Gly Lys Arg Phe Thr His Ser Asp Leu Ser Leu Gly Leu
20 25 30
Val Leu Arg Ser Ile Ser Thr Glu His Ala Ala Glu Ala Phe Thr Phe
35 40 45
Leu Leu Ser Leu Leu His Leu Leu Pro Gly Leu Glu Phe Ser Thr Ala
50 55 60
Glu Asp Ile Pro Trp Arg Gln Ser His Ala Glu Met Ala Ser His Gly
65 70 75 80
Gln Asn Leu Ser Leu Lys Val Thr Gln His Asp Ile Pro Ala Ala Leu
85 90 95
Ile Asp Ala Lys Gly Cys Leu Ala Asn Ser Gly Arg Val Cys Ile Gly
100 105 110
Cys Gly Asn Asn Pro Arg Arg Arg Val Arg Asp Ser Gln Val Gln Asp
115 120 125
Phe Pro Leu Leu Asp Glu Asp Met Gln Ala Val His Asn Leu Leu Asn
130 135 140
Gly Cys Gly Val Ile Pro Pro Val Gln Ile Glu Asp Ile Asn Pro Val
145 150 155 160
Cys Leu Gln Leu Phe Glu Arg Ile Ala Asn Thr His Met Gln Ala Pro
165 170 175
Pro Val Ile Ser Thr Val Val Arg Arg Lys Thr Leu Phe Leu Glu Gly
180 185 190
Met Cys Leu Val Ile Arg Ser Val Leu Gly Cys Lys Asp Asn Leu Val
195 200 205
Thr Val Phe Pro Ser Arg His Pro Phe Ser Asn Pro Cys Phe Arg Leu
210 215 220
Leu Val Leu Val Cys Val Cys Gly Val Asp Lys Val Ala Ser Gly Cys
225 230 235 240
Asn Val Gly Val Lys Glu Cys Glu Tyr Leu Leu Leu Val His Ala Ser
245 250 255
Pro

<210> 39120
<211> 418
<212> PRT
<213> A.fumigatus

<400> 39120

```
Ser Asn Leu Thr Val His Glu Ser Leu Ile Met Thr Pro Pro Ser Ser
1               5                  10                  15
His Gly Tyr Gly Arg Phe Arg Leu Asp Ser Ala Arg Gly Lys Pro Arg
            20                  25                  30
Lys Thr Val Gln Thr Gly Arg Arg Ser His Gln Lys Ser Arg Thr Gly
        35                  40                  45
Cys Arg Thr Cys Lys Lys Asp Arg Leu Lys Cys Asp Glu Thr His Pro
    50                  55                  60
Thr Cys Pro Arg Cys Ser Gln Arg Lys Arg Met Cys Glu Tyr Asp Gly
65                  70                  75                  80
Ile His Arg Tyr Tyr Ser Glu Ser Ser Thr Ala Cys Ser Pro Val Val
                85                  90                  95
Ala Ser Gln Gly Gly Leu Ser Leu Glu His Ser Leu Met Asp Gly Leu
            100                 105                 110
Ile Asn Gln Ser Phe Thr His Ser Leu Ser Ile Thr Asn Thr Thr His
        115                 120                 125
Leu Met His Asn Leu Val Gly Ser Val His Thr Ser Leu Ala Thr Pro
    130                 135                 140
Ile Gly Lys Phe Leu Phe Asp His Tyr Ile Leu Pro His Cys Ala Ala
145                 150                 155                 160
Thr Pro Arg Leu Leu His Ser Leu Leu Ala Leu Ser Ala Arg His Leu
                165                 170                 175
Gln His Leu Gln Pro Arg Cys Leu Ser His Thr Thr Ala His Tyr Phe
            180                 185                 190
His Ala Ser His Ala Ala Glu Leu Leu Asn Asp Glu Leu Gly Arg Val
        195                 200                 205
Ala Ser Ser Pro Gln Asn Leu Gly Met Ile Tyr Ala Thr Cys Ile Val
    210                 215                 220
Leu Asn Met Gly Cys Phe Ala Ser Asp Asp Tyr His Pro Ser Ser Ser
225                 230                 235                 240
Trp Val Phe Gln Asp Thr Ala Glu Ile Asp Gln Ser Phe Thr Trp Phe
                245                 250                 255
Thr Leu Gln Ser Gly Leu Gly Tyr Val Ser Ser Met Leu Lys Asn Gln
            260                 265                 270
Val His Gln Thr Phe Trp Arg Leu Lys Ala Gly Ser Arg Gly Ser Ser
        275                 280                 285
Ile Gly Asn Leu Leu Thr Trp Ala Thr Lys Asp Pro Ser His Thr Gly
    290                 295                 300
Ser Leu Glu Lys Ile Pro Asp Phe Leu Leu Asp Leu Cys Glu Ile Thr
305                 310                 315                 320
Pro Asp Ser Ser Pro Glu Asn Asn Pro Tyr Tyr Ile Pro Ile Cys Leu
                325                 330                 335
Leu Ser His Thr Leu Pro Leu Lys Lys Pro Val Ala Gln Glu Phe Asp
            340                 345                 350
His Leu Leu Ile Phe Gly Pro Leu Ile Pro His Ser Phe Arg Ile Leu
        355                 360                 365
Leu Arg Asp Arg Asp Glu Arg Ala Leu Val Leu Phe Leu Ile Trp Leu
    370                 375                 380
Arg Leu Leu Gly Arg Gly Asp Phe Trp Trp Val Asn Thr Arg Val Glu
385                 390                 395                 400
```

```
Ala Glu Ser Arg Ala Leu Ser Trp His Phe Phe Val Thr Ala Lys Met
                405                 410                 415
Glu Arg
```

<210> 39121
<211> 97
<212> PRT
<213> A.fumigatus

<400> 39121

```
Ile Arg Phe Ser Tyr Cys Pro Ala Ser His Lys Tyr Asn His Arg Phe
1               5                   10                  15
Arg Ser Cys Pro Pro Phe Arg His Thr Val Gln Leu Pro Lys Ala Leu
            20                  25                  30
Asn Gln Ser Leu Tyr Phe Leu Cys Asn Met Asp Phe Gln Thr Pro Glu
        35                  40                  45
Pro Pro Thr Glu Leu Gly Arg Tyr Arg Ile Leu Ser Ser Asn Cys Gly
    50                  55                  60
Leu Arg Val Ser Pro Leu Gln Leu Gly Ala Met Ser Ile Gly Glu Ala
65                  70                  75                  80
Trp Ser Ser Phe Met Gly Thr His Glu Gln Gly Ala Gly Ile Arg Thr
                85                  90                  95
Pro
```

<210> 39122
<211> 81
<212> PRT
<213> A.fumigatus

<400> 39122

```
Val Asn Asp Ile Arg Leu Tyr Ser Cys Ala Leu Tyr Gln Thr Thr Val
1               5                   10                  15
Glu Leu Asp Met Ile Pro Tyr Lys Thr His Ser Pro Ser Leu Trp Asp
            20                  25                  30
Ile Val Lys Val His Ile Ala Tyr Ala Leu His Phe Thr Ser Cys Thr
        35                  40                  45
Ile Asn Gln Ala Thr Glu Arg Arg Glu Ser Gly His Val Ile Arg Thr
    50                  55                  60
Ser Gln Ile Gln Ser Gln Asn Ile Val Ala Gly Leu Ala Leu Ile Pro
65                  70                  75                  80
Gly
```

<210> 39123
<211> 114
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (39),(63),(91)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39123

```
Arg Gly Gly Ala Ser Pro Arg Gly Thr Gly Phe Gly Cys Ser Lys Pro
1               5                  10                  15
Ala Trp Pro Lys Lys Val His Arg Lys Thr Val Pro Arg Pro Gly Cys
            20                  25                  30
Glu Ala Gly Arg Met Cys Xaa Gly Gln Phe Ser Ser Pro Ile Ser His
        35                  40                  45
Ile Arg Val Asp Arg Leu Thr Ser Arg Ser Thr Leu Gly Asp Xaa Ala
    50                  55                  60
Arg Gly Ser Ile Ser Asn Ser Glu Asp Tyr Leu Cys Ser Ser Glu Thr
65                  70                  75                  80
Thr Glu Val Ser Cys Gly Phe Glu Pro Glu Xaa Asp Ile Gly Ser Arg
                85                  90                  95
His Asn His Ser Ala Ala Gly Glu Leu Leu Gly Trp Val Leu Arg Gly
            100                 105                 110
Asp Glu
```

<210> 39124
<211> 151
<212> PRT
<213> A.fumigatus

<400> 39124

```
Tyr Ser Ile Thr Gln Val Phe Val Ser Cys Ser Ser Val Thr Pro Phe
1               5                  10                  15
Lys Ser Gly Ser His Thr Val Leu Pro Pro Ile Ser Thr Ile Ile Asp
            20                  25                  30
Ser Ala Leu Val His Arg Phe Ala Thr Gln Phe Asn Phe Gln Arg Leu
        35                  40                  45
Ser Ile Asn Leu Tyr Thr Phe Phe Ala Ile Trp Thr Phe Arg Leu Leu
    50                  55                  60
Asn Leu Pro Pro Asn Trp Ala Gly Thr Ala Ser Ser Pro Gln Thr Ala
65                  70                  75                  80
Val Ser Val Ser His Arg Ser Ser Trp Ala Pro Cys Arg Leu Glu Arg
                85                  90                  95
Pro Gly Pro Pro Ser Trp Gly Arg Met Asn Lys Glu Gln Val Phe Ala
            100                 105                 110
Leu Leu Asp Ala Tyr Val Ala Ala Gly Gly Asn Phe Ile Asp Thr Ala
        115                 120                 125
Asn Ala Tyr Gln Asn Glu Gln Ser Glu Ala Trp Ile Gly Glu Trp Met
    130                 135                 140
Ser Ala Arg Lys Asn Cys Asp
145                 150
```

<210> 39125
<211> 298
<212> PRT
<213> A.fumigatus

<400> 39125

```
Ile Val Leu Ala Thr Lys Tyr Thr Ser Asp Tyr Lys Ala His Ser Phe
1               5                  10                  15
Glu Lys Lys Gly Leu Ser Pro Asn His Cys Gly Asn His Arg Arg Ser
            20                  25                  30
Leu His Met Ser Val Arg Asp Ser Leu Lys Lys Leu Gln Thr Asp Trp
        35                  40                  45
```

```
Ile Asp Ile Leu Tyr Leu His Trp Trp Asp His Thr Thr Ser Ile Glu
    50                  55                  60
Glu Ile Met Asn Ser Leu His Ile Leu Val Glu Gln Gly Lys Val Leu
65                  70                  75                  80
Tyr Leu Gly Ile Ser Asp Thr Pro Ala Trp Ile Val Ala Ala Ala Asn
                85                  90                  95
Ala Tyr Ala Ala Ala Val Gly Lys Thr Pro Phe Cys Ile Tyr Gln Gly
            100                 105                 110
Arg Trp Asn Val Met Leu Arg Asp Phe Glu Arg Glu Ile Leu Pro Met
        115                 120                 125
Ala Arg His Phe Gly Met Ala Leu Ala Pro Trp Asn Ile Leu Gly Ser
    130                 135                 140
Gly Lys Phe Gln Thr Arg Glu Gln Val Glu Glu Arg Lys Lys Lys Gly
145                 150                 155                 160
Glu Ser Leu Arg Ser Val Phe Ser Gly Asp Thr Thr Glu Asn Gln Thr
                165                 170                 175
Glu Ala Glu Ile Arg Met Ser Glu Ala Leu Ala Asn Val Ala Ala Glu
            180                 185                 190
His Gly Ile Lys Ser Val Thr Ala Val Ala Leu Ala Tyr Ile Leu Cys
        195                 200                 205
Lys Ala Pro Asn Val Phe Pro Ile Val Gly Gly Arg Lys Val Glu His
    210                 215                 220
Leu His Asp Asn Ile Gln Ala Leu Lys Ile Lys Leu Thr Glu Glu Gln
225                 230                 235                 240
Ile Lys Tyr Leu Glu Ser Val Asn His Phe Asp Pro Gly Phe Pro Ser
                245                 250                 255
Asn Phe Leu Gly Glu Asp Pro Arg Val Ser Gly Lys Ala Gly Arg Leu
            260                 265                 270
Leu Ala Thr Ser Ala Pro Leu Ala Cys Val Arg Ala Pro Thr Ala Ile
        275                 280                 285
Gly Tyr Glu Val Leu Ala Glu Ile Pro Ser
    290                 295
```

<210> 39126
<211> 89
<212> PRT
<213> A.fumigatus

<400> 39126

```
Cys Leu Gly Ser Pro Thr Pro Val Ile Tyr Lys Val Lys Ser Glu Ile
1               5                   10                  15
Gln Leu Arg Glu Ala Leu Ser Gly Ser Pro Ser Arg Phe Arg Ser Gly
            20                  25                  30
Tyr Phe Thr Ser Ile Ile Leu Ala Trp Ser Tyr Ile Val Phe Cys Arg
        35                  40                  45
Trp Val Glu Ile Leu Gln Arg Ala Gly Glu Glu Val Arg Ser Tyr Thr
    50                  55                  60
Lys Arg Met Glu Val Phe Glu Asn Ser Phe Trp Asp Ile Val Thr His
65                  70                  75                  80
Gly Gly Trp Glu Ala Leu Gly Lys Gly
                85
```

<210> 39127
<211> 369
<212> PRT
<213> A.fumigatus

<400> 39127
Asn Arg Leu Arg Glu Leu Gly Tyr Ser Ile Pro Leu Gly Thr Thr Pro
1 5 10 15
Ile His Leu Arg Arg Gly Gly Arg Phe Ala Tyr Met Gln Met Gly Phe
20 25 30
Ser Ile Cys Phe Thr Trp Gly Met Ser Thr Ile Leu Phe Phe Phe Ile
35 40 45
Leu Phe Phe Phe Ser Gln Ile Thr Ala Ile Phe Tyr Ser His Gly Leu
50 55 60
Asp Ala His Cys Trp Trp Phe Phe Gly Arg His Met Arg Gln Leu Glu
65 70 75 80
Gln Ala Lys Lys Ala Phe Pro Asp Val Tyr Leu Ile Val Gly Val Thr
85 90 95
Gly Asp Glu Glu Thr His Lys Arg Lys Gly Leu Thr Val Leu Ser Gly
100 105 110
Arg Glu Arg Ala Glu Ser Val Arg His Cys Lys Trp Val Asp Glu Val
115 120 125
Ile Pro Asp Cys Pro Trp Ile Val Thr Pro Glu Phe Ile Glu Lys His
130 135 140
Gln Ile Asp Tyr Val Ala His Asp Asp Leu Pro Tyr Gly Ala Ala Glu
145 150 155 160
Gly Asp Asp Ile Tyr Ala Pro Ile Lys Ala Gln Gly Lys Phe Leu Val
165 170 175
Thr Gln Arg Thr Glu Gly Val Ser Thr Thr Gly Ile Ile Thr Arg Phe
180 185 190
Gly Phe Pro Pro Arg Leu Ala Asp Val Val Ala Asp Arg Leu Ile Ser
195 200 205
Ser Arg Ile Ile Arg Asp Tyr Asp Gln Tyr Ile Ala Arg Gln Phe Lys
210 215 220
Arg Gly Ala Ser Arg Gln Glu Leu Asn Val Ser Trp Ile Lys Lys Asn
225 230 235 240
Glu Leu Glu Ile Lys Arg His Val Met Glu Leu Arg Asp Ser Ile Arg
245 250 255
Asn Asn Trp Thr Ala Thr Gly Gln Glu Leu Gly Arg Glu Leu Arg Gln
260 265 270
Leu Trp Gln Asn Ser Arg Pro Gly Ser Pro Ala Pro Ser Ala Arg Asn
275 280 285
Ser Met Asp Leu Gly Ser Val Arg Gly Gly Asn Gly Gly Leu Thr Ser
290 295 300
Pro Thr Gly Gly Gln Lys Ser His Val Ser Arg Leu Glu Ala Leu Gly
305 310 315 320
Arg Pro Asp Ser Pro Val Gly Thr Asn Gly Arg Asn Glu Asp Phe Ala
325 330 335
Thr Gly Tyr Ser Leu Gly Leu Ile Gly Gly Val Arg Ala Trp Val Cys
340 345 350
Ile Thr Phe Pro Ala Thr Met Ile Glu Ser Ser Val Asp His Ile Cys
355 360 365
Arg

<210> 39128
<211> 217
<212> PRT
<213> A.fumigatus

<400> 39128
Ser Ser Ala Pro Gln Ser Ala Asn Met Ser Ser Pro Ser Thr Ala Ala
1 5 10 15
Lys Arg Lys Arg Ser Ala Ser Gln His Leu Thr Ala Asp Ile Ala Lys
20 25 30
Ser Ser Thr Val Asp Leu Leu Gln Pro Ser Ser Arg Asp Ala Ser Gly
35 40 45
Glu Glu Gly Asp Asp Ser Thr Asp Pro Ile Thr Pro Thr Ala Ser Lys
50 55 60
Asn Arg Lys His Thr Ser Ile Glu Val Thr Ser Thr Gly Ala Pro Asn
65 70 75 80
Pro Pro Ser Lys Arg Ala Arg Lys Ser Ser Ser Gly Glu Ala Pro Ala
85 90 95
Ala Ala Pro Asn Gly Thr Thr Glu His Ser Ser Ala Ile His Gln Glu
100 105 110
Asp Pro Gly Glu Pro Ser Glu Thr Thr Val Ala Ser Ser Asp Ile Glu
115 120 125
His Gly Ala Thr Gly Arg Pro Gly Leu His Ile Lys Thr Ala Gly Ala
130 135 140
Asp Ala Glu Thr Lys Glu Arg Leu Met Lys Pro Pro Glu Arg Ala Gly
145 150 155 160
Leu Gln His Pro Val Gly Tyr His Thr Asn Pro Pro Pro Thr Gly Arg
165 170 175
Pro Val Arg Val Tyr Ala Asp Gly Val Phe Asp Leu Phe His Val Gly
180 185 190
Tyr Val Tyr Asn Thr Phe Phe Phe Tyr Ser Phe Phe Phe Leu Ser Asp
195 200 205
Tyr Ser Tyr Phe Leu Gln Ser Trp Thr
210 215

<210> 39129
<211> 402
<212> PRT
<213> A.fumigatus

<400> 39129
Lys Asp Arg Pro Phe Phe Phe Phe Leu Asp Ile Tyr Thr Ile Asp His
1 5 10 15
Arg Tyr Arg Lys Asp Met Arg His Phe Asp Ala Trp Leu Leu Arg Asp
20 25 30
Pro Tyr Ser Ile Trp His Tyr Tyr Ser Thr Gly Arg Arg Trp Gln Glu
35 40 45
Ile Val Arg Asp Leu Ile Gln Glu Arg Lys Ile Cys Ala Pro Pro Val
50 55 60
Asn Leu Pro Ser Ser Thr Ser Phe Arg Pro Val Asp Pro Tyr Asp Arg
65 70 75 80
Pro Ile Asn Pro Gln Ser Ala Ser Pro Leu Phe Gly Lys Leu Pro Ala
85 90 95
Glu Ile Arg Leu Ile Ile Tyr His Tyr Val Phe Gly Asp Glu Ala Val
100 105 110
His Leu Val Gln Leu Lys Gly Lys Ile Arg His Val Arg Cys Lys His
115 120 125
Thr Ser Ser Ser Leu Asp Ser His Arg Leu Cys Cys Pro Ile Thr Pro
130 135 140
Ala Arg Trp Arg Ala Gly Ala Arg Thr His Asp Gly His Ser Asp Ser
145 150 155 160

```
Arg Leu Tyr Pro His Thr His Pro Ala Leu Pro Asp Met Leu Ser Asn
                165                 170                 175
Gly Ser Leu Ala Leu Leu Arg Thr Cys Arg Ala Val Tyr Ala Glu Ala
            180                 185                 190
Ala Asp Leu Pro Tyr Ala Thr Leu Val Phe Asp Val Asp Asp Leu His
        195                 200                 205
Thr Phe Val Ala Phe Ser Gln Thr Ile Asp Pro His Arg Leu Cys Ala
    210                 215                 220
Ile Arg Arg Leu Thr Val Gln Trp Thr Pro Val Trp Gln Pro Met Ala
225                 230                 235                 240
Gly Gln Glu His Lys Ala Ser Ile Tyr Ala His Thr His Asn Asp His
                245                 250                 255
Leu Trp Ala Leu Phe Trp Ser Arg Val Ala Ala Cys Arg Gly Leu Glu
            260                 265                 270
Glu Leu His Leu Ser Ile Asp Leu Gly Arg Phe Thr Arg Ala Thr Asn
        275                 280                 285
Ala Thr Ala Gly Leu Leu Gly Gly Gln Arg Leu Arg Leu Asp Val Arg
    290                 295                 300
Glu Pro Trp Val Ala Pro Leu Leu Ser Val Arg Gly Leu Arg Val Phe
305                 310                 315                 320
Glu Leu Gly Ile Thr Ala Arg Ser Asp Ala Glu Pro Val Ala Arg Arg
                325                 330                 335
Leu Leu Glu Glu Asn Leu Thr Arg Asp Ala Val Thr Leu Arg Asp Ser
            340                 345                 350
Leu Arg Ala Val Met Cys Ser Ala Pro Gly Lys Ala Val Leu Val Ser
        355                 360                 365
Gly Val Glu Leu Trp Lys Pro Cys Pro Val Glu Asp Arg Asp Glu Gln
    370                 375                 380
Thr Gln Pro Ala Arg Trp Arg Arg Thr Arg Pro Arg Leu Ala Ile Thr
385                 390                 395                 400
Ala Lys
```

<210> 39130
<211> 357
<212> PRT
<213> A.fumigatus

<400> 39130

```
Leu Met Gln Thr Leu Leu Leu Glu Pro Gly Asp Leu Val Gln Val Lys
1                   5                  10                  15
Ser Thr Asp Leu Pro Pro Gly Gln Phe Ile Lys Leu Gln Ala Gln Ser
            20                  25                  30
Thr Ser Phe Leu Asp Ile Ser Asp Pro Lys Ala Val Leu Glu Asn Ala
        35                  40                  45
Phe Arg Asn Phe Ser Cys Leu Thr Lys Gly Asp Val Phe Thr Phe Ala
    50                  55                  60
Tyr Asn Asp Gln Val Tyr Glu Met Ala Val Leu Glu Thr Lys Pro Ser
65                  70                  75                  80
Asn Asn Thr Asn Ala Val Ser Val Leu Glu Thr Asp Leu Glu Val Asp
                85                  90                  95
Phe Ala Pro Pro Val Gly Tyr Glu Glu Ile Gln Arg Pro Ser Gly Thr
            100                 105                 110
Ser Thr Pro Leu Ser Gly Val Ser Gly Lys Leu Pro Ser Gly Gly Leu
        115                 120                 125
Leu His Pro His Gly Thr Met Ala Gln Ala Ile Asn Tyr Ala Ala Ile
```

```
    130                 135                 140
Ala Pro Glu Ser Thr Asp Ala Ala Thr Gly Ala Lys Ala Val Ser Ser
145                 150                 155                 160
Asn Phe Leu Leu Gly Gly Gln Arg Leu Asn Ala Lys Lys Gly Ser Lys
                165                 170                 175
Ala Pro Thr Pro Lys Pro Ser Thr Pro Val Pro Gly Ala Thr Asn Pro
            180                 185                 190
Gln His Pro Pro Pro Ala Arg Arg Thr Asn Gly Pro Gln Pro Leu Arg
        195                 200                 205
Leu Pro Pro Asn Gln Leu Phe Phe Gly Tyr Ala Ile Lys Pro Val Lys
    210                 215                 220
Lys Arg Gly Glu Asp Gly Gln Ala Ile Glu Lys Pro Arg Phe Gln Gly
225                 230                 235                 240
Thr Gly Gln Thr Leu Arg Gly Lys Lys Arg Glu Pro Gly Asn Ser Ala
                245                 250                 255
Thr Pro Thr Ser Gly Ser Asp Ala Glu Asn His Lys Gly Lys Glu Arg
            260                 265                 270
Asn Gln Lys Ser His Gly Ser Gly Ala Asn Pro Trp Arg Tyr Gln Ala
        275                 280                 285
Leu Ile Phe Arg Leu Ile Thr Leu Thr Asn Gln Cys Phe Asn Asp Phe
    290                 295                 300
Arg Ile His Phe Phe Leu Gln Gly Gly Lys Lys Phe Lys Ser Arg Arg
305                 310                 315                 320
Leu His Ile Lys His Thr Lys Gly Gly Arg Arg Leu Ile Gly Ile Val
                325                 330                 335
Phe Phe Leu Gln Leu Cys Ser Ile Val Asp Tyr Gly Gln Pro Ser Leu
            340                 345                 350
Leu Asp Phe Pro Ser
        355
```

<210> 39131
<211> 109
<212> PRT
<213> A.fumigatus

<400> 39131

```
Leu Trp Gln Asp Leu Arg Pro Cys Asp Ser Asn Lys Ala Gln Ser Pro
1               5                   10                  15
Leu Arg Tyr Pro Thr Thr Val Arg Asp Ser Gln Asp Tyr Arg Ala Ser
            20                  25                  30
Ala Val Ser Leu Lys Ser Pro Ser Ser Asn Leu Ala Gln Ser Ala Leu
        35                  40                  45
Val Leu Met Tyr Asn Asn Tyr Thr Thr Ser Leu Arg Gly Asp Ser Pro
    50                  55                  60
Phe Pro Val Gln Lys Ala Asp Arg Thr Met Ala Ser Ser Lys Asn His
65                  70                  75                  80
Gly Ser Lys Val Asp Ile Asn Leu Arg Val Ser Ala Ser Leu Thr Phe
                85                  90                  95
Leu His Ile Leu Val Lys Leu Pro Ile Gly His Pro Leu
            100                 105
```

<210> 39132
<211> 177
<212> PRT
<213> A.fumigatus

<400> 39132
Gln Pro Gln Phe Arg Pro Gly Tyr Trp Asp Asp Asp Pro Met Asp Gly
1 5 10 15
Val Leu Gly Ser Ser Met Leu Arg His Gly Ala Thr Ile Arg Arg Phe
20 25 30
Asp Glu Tyr Tyr Arg Cys Tyr Pro Val Ala Met Leu Pro Gly Pro Glu
35 40 45
Arg Glu Asn Val Asn His Gly Gly Lys Val Ile Met Pro Pro Ser Ala
50 55 60
Leu Asp Lys Leu Thr Arg Leu His Ile Thr Tyr Pro Met Leu Phe Glu
65 70 75 80
Leu His Asn Gly Ala Lys Glu Arg Met Thr His Ala Gly Val Leu Glu
85 90 95
Phe Ile Ala Glu Glu Gly Lys Ile Tyr Leu Pro Phe Trp Val Arg Gln
100 105 110
Ser Met Ser Ser Phe Asp Tyr Ile Gly Thr Ala Ile Thr Asp Ile Val
115 120 125
Trp Ser Leu His Ser Ser Cys Lys Leu Ser Ser Ser Ser Leu Val Thr
130 135 140
Ser Phe Arg Ser Asn Gln Pro Ile Ser Leu Pro Ala Asn Ser Leu Asn
145 150 155 160
Phe Lys Pro Ser Gln Pro Leu Ser Leu Thr Ser Ala Ile Gln Lys Gln
165 170 175
Cys

<210> 39133
<211> 296
<212> PRT
<213> A.fumigatus

<400> 39133
Phe Cys Ser Ser Ser Ser Phe Pro Ser Arg Met Ile Ser Ser Gln Pro
1 5 10 15
Arg Pro Lys Arg Ala Gly Glu Asp Phe Thr Arg Thr His His His Asp
20 25 30
Glu Asp Asp Pro Asn Gly Pro Ser Glu His Lys Lys Pro Arg Phe Asp
35 40 45
Leu Arg Asn Pro Ser Asn Leu Ala Pro Asp Ala Leu Asp Glu Asp Pro
50 55 60
Val Leu Asp Ala Asp Glu Ile Gly Arg Arg Gly Gln Gln Val Arg Arg
65 70 75 80
Lys Ala Val Asn Leu Asp Gly Tyr Asp Ser Asp Ser Glu Asn Glu Gly
85 90 95
Phe Ser Ala Arg Ile Glu Ala Lys Ala Lys Arg Thr Arg Ala Lys His
100 105 110
Asp Ala Glu Asp Asp Asp Met Phe Ala Glu Leu Gln Glu Asp Phe Gly
115 120 125
Ala Glu Glu Ile Asp Ala Asp Glu Ala Leu Arg Lys Asn Lys Lys Thr
130 135 140
Val Arg Phe Leu Arg Asp Asp Glu Ile Glu Gly Gln Val Ala Ser Ser
145 150 155 160
Lys Gly Gly Val Thr Leu Arg Ala Asp Leu Asn Ala Thr Gly Asp Thr
165 170 175
Val Glu Glu Asp Glu Val Glu Ser Glu Ser Asp Val Ala Asp Glu Asp
180 185 190

```
Arg Ala Arg Leu Asp Glu Gly Met Asp Glu Glu Leu Gly Ala Gly Ala
        195                 200                 205
Lys Lys Lys His Ala Pro Leu Leu Asp Ala Phe Asn Met Arg Ala Glu
    210                 215                 220
Gln Glu Glu Gly Lys Phe Asp Asp Gln Gly Asn Tyr Ile Arg Lys Ala
225                 230                 235                 240
Ala Asp Pro Asp Glu Ile Tyr Asp Ser Trp Leu Glu Gly Val Ser Lys
                245                 250                 255
Lys Asp Ile Arg Arg Ala Lys Glu Ala Ala Glu Lys Arg Glu Ala Glu
            260                 265                 270
Arg Lys Glu Arg Asp Arg Leu Asn Asp Ile Ile Leu Arg Pro Phe Phe
        275                 280                 285
Asn Ser Gly His Gly Lys Tyr Lys
    290                 295
```

<210> 39134
<211> 244
<212> PRT
<213> A.fumigatus

```
<400> 39134
Tyr Ser Gly Glu Ser Ser Asn Ser Gln Glu Ser Ser Ser Asn Asp Pro
1               5                   10                  15
Gln Ser Ser Val Thr Pro Lys Glu Glu Glu Met Glu Gln Asp Glu Pro
            20                  25                  30
Pro Ser Ser Pro Ser Ser Ile Gly Ser Leu Asp Ala Ile Asp Arg Val
        35                  40                  45
Glu Glu Asp Leu Asn Arg Ser Glu Ser Ser Arg Ala Thr Gly Tyr Phe
    50                  55                  60
Gly Lys Asn Ser Glu Leu Thr Trp Met Gln Arg Val Arg Arg Glu Ala
65                  70                  75                  80
Glu Gln Arg Val Arg Asn Gln Ser Gly Ala Ser Asp Thr Lys Pro Glu
                85                  90                  95
Gly Asp Phe Ala Leu His Ala Val Asn Tyr His Leu Asp Asp Met Asp
            100                 105                 110
Ile Thr Val Pro Gly Pro Val Gln Val Tyr Trp Met Pro Pro Arg His
        115                 120                 125
Val Ala Asp Lys Leu Phe Glu Asp Tyr Leu Thr Thr Val His Pro Phe
    130                 135                 140
Phe Pro Ile Ile Ser Arg Thr Leu Phe Ser Ala Gln Tyr Arg Thr Phe
145                 150                 155                 160
Phe Glu Ser Ala Gly Arg Pro Gly Asp Lys Trp Leu Ala Ile Leu Asn
                165                 170                 175
Met Ile Phe Ala Ile Ala Ser Lys His Ala His Leu Thr Gln Ala Pro
            180                 185                 190
Trp Arg Gly Asp Glu Arg Asp His Leu Val Tyr Leu Thr Arg Ala Arg
        195                 200                 205
Ile Leu Ser Met Asn Gly Asp Thr Ile Phe Asn His Pro Asp Leu Gln
    210                 215                 220
Gln Val Gln Val Glu Gly Leu Ile Ala Phe Tyr Leu Leu Ala Ser Asp
225                 230                 235                 240
Gln Ile Asn Arg
```

<210> 39135
<211> 478

<212> PRT
<213> A.fumigatus

<400> 39135

```
Leu Thr Leu Ser Arg Ala Trp Arg Ile Ala Ser Leu Ala Val Arg Ser
1               5                  10                  15
Gly Ile Ser Leu Gly Ile Asn Met Lys Asn Thr Ser Glu Thr Thr Pro
            20                  25                  30
Ser Ile Ser Lys Glu Ala Arg Tyr Arg Val Trp Trp Cys Leu Tyr Thr
        35                  40                  45
Phe Glu His Met Leu Gly Val Met Thr Gly Arg Ser Thr Cys Ile Leu
    50                  55                  60
Asp Gly Val Cys Thr Thr Pro Met Pro Leu Pro Phe Asp Glu Glu Gln
65                  70                  75                  80
Leu Arg Glu Pro Phe Ala Ala Lys Leu Leu Ala Asp Gln Asp Met Arg
                85                  90                  95
Gln Ala Tyr Ile Glu Ser Ala Met Ala Ser Ser Tyr Val Arg Gln Met
            100                 105                 110
Pro Leu Asn Pro Pro Gly Gly Arg Asp Ala Gln Leu Ala Asp Lys Pro
        115                 120                 125
Arg Asp Ala Gln Trp Leu Lys Ser Gln Pro Ala Ser Arg Ala Leu Cys
    130                 135                 140
Tyr Leu Phe Tyr Thr Asp Leu Ala Val Ile Gly Gln Glu Ile Val Asn
145                 150                 155                 160
Arg Val Tyr Ser Pro Asp Cys Val Asn Thr Pro Trp Pro His Ile Glu
                165                 170                 175
Asn Arg Ile Gly Glu Leu Arg Ala Arg Ile Asp Arg Trp Tyr His Asn
            180                 185                 190
Leu Pro Glu Val Phe Asp Phe Ala His Lys Met Thr Glu Glu Asp Gln
        195                 200                 205
Glu Leu Leu Arg Leu Lys Leu Phe Leu Ala Phe His Phe Tyr Ser Ala
    210                 215                 220
Arg Ile Thr Leu Gly Arg Pro Cys Leu Cys Arg Arg Asp Ala Leu Pro
225                 230                 235                 240
Arg Asp Pro Ser Lys Lys Pro Thr Phe Ser His Gly Met Ala Val Val
                245                 250                 255
Ser Leu Glu Ser Ala Leu Arg Met Leu Glu Leu Leu Pro Asp Glu Pro
            260                 265                 270
Asn Ala Ile Gln Leu Tyr Gln Ile Cys Pro Trp Trp Cys Asn Leu His
        275                 280                 285
Tyr Leu Met Gln Ala Ala Thr Val Leu Leu Leu Glu Leu Ser Phe Gly
    290                 295                 300
Asn Ile His Met Pro Glu Glu Glu Pro Asn Phe Phe Ala Ala Ala Lys
305                 310                 315                 320
Lys Ala Val Arg Trp Leu Tyr Ala Met Ser Glu Cys Ser Ala Ala Ser
                325                 330                 335
Arg Arg Ala Trp Gln Leu Cys Asp Ser Asn Leu Arg Arg Ile Ala Tyr
            340                 345                 350
Gly Met Asn Tyr Asp Val Ser Asp Met Pro Glu Ser Ala Tyr Glu Thr
        355                 360                 365
Arg Pro Ala His Pro Leu Ser Met Gln Pro Gln Arg Tyr Asn Pro Gln
    370                 375                 380
Asn Thr Asn Leu Thr Ser Thr Thr Met Cys Tyr Asp Ala Thr Asp Asp
385                 390                 395                 400
Leu Ser Leu Leu Asn Pro Thr Ala Ala Gly Gly Ser Gln Glu Thr Tyr
                405                 410                 415
```

```
Gln Tyr Phe Gln Asn Ser His Pro Ser Thr Val Ser His Ser Glu Lys
            420                 425                 430
Ile Pro Ser Leu Asp Leu Leu Ser Ser Ala Ser Ser Asn Pro Pro Arg
        435                 440                 445
Gly Asp Ala Phe Phe Pro Tyr Asp Pro Ile Ser Arg Glu Phe Ile Gln
    450                 455                 460
Ser Phe Phe Pro Val Ala Ala Asp Glu Glu Pro Trp Thr His
465                 470                 475
```

<210> 39136
<211> 235
<212> PRT
<213> A.fumigatus

<400> 39136

```
Thr Asn Leu Pro Gly Tyr Thr Pro Pro Asp Leu His His Pro Pro Ser
1               5                   10                  15
Ala His Glu Phe Asn Arg Arg Leu Arg Arg Gly Glu Ser Ser Met Glu
            20                  25                  30
Asn Ala Pro Ser Ser Ile Pro Glu Ser Gly Ser Ala Ala Met Arg Gly
        35                  40                  45
Gln Met Pro Ser His Pro Pro Pro Gln Gln Val Asp Arg Asn Glu Lys
    50                  55                  60
Ala Ala Ile Asn Ser Met Pro Ala Val Glu Leu Lys Asp Ser Ser Tyr
65                  70                  75                  80
Met Gln Gln Ile Ser Lys Pro Ser Pro Leu Gly Pro Asn Arg Ser Gly
                85                  90                  95
Ala Asn Glu Ser Ala Asn Ala Lys Val Ala Ile Pro Arg Gln Arg Ser
            100                 105                 110
Thr Val Ala Pro Arg Tyr Ser Arg Arg Val Pro Arg Ala Cys Glu Ser
        115                 120                 125
Cys Arg Ala Arg Lys Thr Lys Cys Ser Gly Asp Thr Pro Ile Cys Arg
    130                 135                 140
Gln Cys Lys Glu Leu Arg Val Thr Cys Arg Tyr Pro Val Ser Trp Arg
145                 150                 155                 160
Glu Lys Thr Lys Gly Tyr Val Val Gly Leu Ser Cys Cys Val Gly Leu
                165                 170                 175
Gln Leu Ile Arg Met Val Phe Phe Phe Cys His Gly His Arg Gln Leu
            180                 185                 190
Asp Ile Leu Ser Val Lys Thr Gln Asp Tyr Glu Asn Leu Leu Arg Glu
        195                 200                 205
Ile Gly Ser Met Val Asp Ser Arg Thr Ser Glu Arg Ile Lys Ser Met
    210                 215                 220
Leu Asp Lys Val Arg Ala Ser Gly Asp Ile Pro
225                 230                 235
```

<210> 39137
<211> 599
<212> PRT
<213> A.fumigatus

<400> 39137

```
Leu Leu Arg Asp Thr Arg Arg Cys Thr Gly Pro Val Ala Tyr Gly His
1               5                   10                  15
Tyr Asn Val Val Phe Leu Leu Met Lys Val Gly Ala Asp Ile Thr Pro
            20                  25                  30
```

```
Gly Gln Asn Thr Gly Phe Ser Pro Leu Asp Tyr Ala Ile Ile Thr Gly
        35                  40                  45
His Asp Arg Val Val Glu Val Leu Leu Lys His Gly Ala Thr Ile Thr
    50                  55                  60
Asp Val Thr Ile Gly Pro Ser Gln Arg Thr Thr Leu His Ala Ala Ala
65                  70                  75                  80
Ile Lys Gly Tyr Ser Lys Ile Ala Lys Met Leu Leu Ser His Gly Ala
                85                  90                  95
Pro Thr Asp Val Lys Asp Ala His Gly His Thr Pro Leu His Leu Ala
            100                 105                 110
Val Ser Lys Gly His Leu Glu Ile Val Gln Ala Leu Leu Cys Ala Gly
        115                 120                 125
Ala Thr Val Asp Ile Gln Asp Lys Val Gly Asp Ser Pro Leu His Leu
    130                 135                 140
Ala Ala Gly Asn Gly Tyr Phe Ala Ile Val Gln Glu Leu Leu Asn Lys
145                 150                 155                 160
Gly Ala Asp Pro Ser Leu Gln Gly Arg Lys Thr Ala Thr Pro Leu His
                165                 170                 175
Gln Ala Ser Leu Met Gly Phe Val Asp Val Val Gln Leu Leu Leu Glu
            180                 185                 190
Ser Gly Ala Asn Val Ser Ala Gln Arg Ser Asp Gly Gln Thr Pro Leu
        195                 200                 205
Leu Gln Ala Ser Gly Ala Gly Gln Val Ala Thr Val Arg Leu Leu Leu
    210                 215                 220
Gly Ala Gly Ser Ser Pro Ser Ile Pro Asp Glu Asp Gly Asn Thr Pro
225                 230                 235                 240
Leu His Phe Ala Val Leu Ser Glu Lys Ala Thr Ile Ala Glu Met Leu
                245                 250                 255
Ile Glu Ala Gly Ala His Val Asp Ser Ala Asn Asp Lys Asn Gln Thr
            260                 265                 270
Pro Leu His Trp Ala Ala Lys Gly His Glu Glu Met Val Pro Thr Leu
        275                 280                 285
Leu Lys His Lys Ala Asp Thr His Ala Arg Ser His Thr Gly Trp Thr
    290                 295                 300
Pro Leu His Trp Ala Ala Asn Glu Gly His Val Gly Ile Thr Thr Ala
305                 310                 315                 320
Leu Leu Asp Ala Gly Ala Arg Asp Gln Ile Gln Asn Glu His Gly Glu
                325                 330                 335
Ser Ala Leu His Leu Ala Val Gln Lys Gly His Gln Ala Val Val Gln
            340                 345                 350
Leu Leu Ile Gln Arg Gly Ser Lys Pro His Leu Thr Asp Asn Lys Leu
        355                 360                 365
Arg Thr Val Leu His Cys Ala Ala Asp Val Gly His Glu Asp Val Val
    370                 375                 380
Arg Ile Leu Leu Ser Val Gln Ala Arg Ser Asp Val Lys Asp Ile Asn
385                 390                 395                 400
Gly Arg Thr Pro Leu Tyr Tyr Ala Ala Leu Gln Gly His Val Val Ile
                405                 410                 415
Ala Lys Leu Leu Leu Glu Phe Gly Thr Ala Leu Asp Glu Ser Val Lys
            420                 425                 430
Glu Ala Phe Leu Glu Ala Ala Glu Ala Gly His Glu Leu Met Val Gln
        435                 440                 445
Leu Leu Ile Thr His Gly Ile Asp Leu Ser Phe Lys Asp Thr Ser Gly
    450                 455                 460
Ser Thr Ala Leu His Arg Ala Val Leu Gly Gly Gln Ile Glu Val Val
465                 470                 475                 480
```

```
Glu Leu Leu Leu Asp Thr Glu Ala Asp Thr Ser Ala Arg Asp Asn Ser
                485                 490                 495
Gly Lys Thr Ala Leu His Leu Ala Ala Gln Glu Gly Glu Asp Glu Ile
            500                 505                 510
Ala Lys Val Leu Leu Arg Asn Ser Glu Ile Arg Asp Leu Gln Asp Cys
        515                 520                 525
Asp Gly Trp Thr Ala Leu His Trp Ala Val Asn Asn Glu His Glu Asn
    530                 535                 540
Thr Val Gln Ser Leu Leu Asp Ala Gly Val Asp Pro Gly Ile Ala Ser
545                 550                 555                 560
Phe Asp Ala Cys Thr Pro Leu Asp Leu Ala Glu Val Gly Ala Leu Glu
                565                 570                 575
Thr Ile Glu Gln Met Leu Arg Glu Ala Leu Ala Ala Thr Asp Arg Pro
            580                 585                 590
Thr Ile Gly Asp Ala Pro Pro
        595
```

<210> 39138
<211> 104
<212> PRT
<213> A.fumigatus

<400> 39138

```
Ala Val Ile Asn Pro Leu Ala Arg Thr Arg Cys Ile Pro Gln Lys Arg
1               5                   10                  15
Phe Val Thr Met Glu Thr Leu Asp Ala Val Gln Leu Pro Tyr Leu Gly
            20                  25                  30
Val Val Gly Ala Ser Leu Ile Val Ile Leu Gly Ile Ile Leu Leu Phe
        35                  40                  45
Pro Leu Gly Ser Asp Pro Phe Ile Thr Ile Asn Gln His Pro Trp Asp
    50                  55                  60
Leu Phe Gln Thr Lys Ala Lys Gln Gln Phe Glu Tyr Asn Ala Ala Ala
65                  70                  75                  80
Leu Leu Asn Glu Gly Leu Gln Thr Val Ser Ala Glu Ile Arg Cys Ser
                85                  90                  95
Phe Arg Ile Phe Ala Asn Arg Gly
            100
```

<210> 39139
<211> 218
<212> PRT
<213> A.fumigatus

<400> 39139

```
Ser Gln Thr Glu Trp His Gly Val Ser Ile Pro Glu Thr Val Leu Ala
1               5                   10                  15
Leu Ile Ala Gln Met Thr Thr Arg Ala Leu Leu Gly Pro Glu Leu Cys
            20                  25                  30
Arg Asn Pro Glu Trp Leu Asp Ile Ala Lys Ser Phe Thr Thr Asn Arg
        35                  40                  45
Ala Ile Ala Val Ala Ala Val Gln Ser Trp Pro Ser Phe Leu Gln Pro
    50                  55                  60
Val Ile His Trp Phe Leu Pro Pro Cys Arg Ala Leu Arg Arg Gln Ile
65                  70                  75                  80
Gln Cys Ala Arg Asn Ile Ile Leu Pro Ala Leu Glu Arg Glu Arg Arg
                85                  90                  95
```

```
Ala Tyr Cys Ser Asp Gln Pro Thr Lys Arg Glu Phe Ser Asn Leu Val
            100                 105                 110
Phe Ile Asp Gln Tyr Ala Lys Gly Ala Arg Tyr Asp Ala Thr Met Ala
        115                 120                 125
Gln Leu Arg Ile Ile Ala Val Ala Phe Gln Thr Thr Ser Asp Leu Val
    130                 135                 140
Glu Lys Val Ile Ala Arg Leu Cys Lys His Pro Glu Leu Ile Glu Pro
145                 150                 155                 160
Leu Arg Glu Glu Val Val Ser Val Val Gly Asn His Gly Leu His Arg
                165                 170                 175
His Ser Leu Arg Lys Leu Thr Leu Met Glu Ser Val Met Lys Glu Thr
            180                 185                 190
Gln Arg Leu Glu Pro Ala Val Ile Ser Thr Leu Pro Pro Asn Ile Val
        195                 200                 205
Ile Phe Leu Arg Met Gly Leu Val Leu Thr
    210                 215
```

<210> 39140
<211> 147
<212> PRT
<213> A.fumigatus

```
<400> 39140
Arg Pro Ile Ser Val Gly Met Phe Arg Leu Ala Lys Glu Lys Val Thr
1               5                   10                  15
Leu Lys Asp Gly Thr Val Val Pro Lys Gly Thr Asn Ile Ala Phe Ala
            20                  25                  30
Asn Asp Leu Arg Phe Asp Pro Glu Met Tyr Leu Glu Pro Glu Thr Phe
        35                  40                  45
Asp Gly Tyr Arg Phe Gln Arg Met Arg Glu Asp Pro Ala Lys Ile Asp
    50                  55                  60
Leu Ala Pro Phe Thr Lys Thr Arg Met Ser His Leu Ala Phe Gly His
65                  70                  75                  80
Gly Lys His Ala Cys Pro Gly Arg Phe Leu Ala Cys Asp Glu Ala Lys
                85                  90                  95
Leu Ile Leu Cys His Ile Leu Leu Asn Tyr Asp Ile Arg Ala Val Glu
            100                 105                 110
Gly Ser Pro Pro Glu Leu Arg Ala Arg Gly Met Phe Val Gln Leu Asp
        115                 120                 125
Pro Gly Ala Met Met Ser Val Arg Arg Arg Arg Gly Thr Glu Thr Ala
    130                 135                 140
Pro His Gly
145
```

<210> 39141
<211> 77
<212> PRT
<213> A.fumigatus

```
<400> 39141
Gly His Ser Ala Phe Arg Leu Val Thr Asn Met Val Thr Tyr Leu Ile
1               5                   10                  15
Leu Lys Asp Gln Tyr Ala Glu Glu Ile Lys Asn Asp Ser Arg Phe Gly
            20                  25                  30
Ala His Glu Ala Val Asp Pro Val Cys Arg Pro Leu His Cys Ala Asp
        35                  40                  45
```

```
Phe Ser Gln Asn Asp Leu Val Leu Ile Arg Leu Gly Ile Thr Cys Gly
    50                  55                  60
Pro Ala Trp Leu Arg Glu His Val Pro Arg Phe Ala Ala
65                  70                  75

<210> 39142
<211> 178
<212> PRT
<213> A.fumigatus

<400> 39142
Asn Ile Glu Arg Pro Pro Arg Pro Ala Ala Ser Ser Glu Ser Cys Asp
1               5                   10                  15
Ser Leu Asp Cys Pro Gly Phe Leu Gln Phe Arg Phe Ser Ile Ser Leu
            20                  25                  30
Glu His His Pro His Pro Arg Pro Thr Met Thr Ile Pro Thr Glu Ile
        35                  40                  45
Ser Cys Pro Glu Glu Asp Ala Phe Gln Leu Leu Asp Lys Phe Ser Trp
    50                  55                  60
Phe Pro Ser Asp Asp Gln Arg Arg Trp Trp Glu Tyr Thr Gly Pro Tyr
65                  70                  75                  80
Leu Leu Lys Leu Leu Arg Asp Ala Lys Tyr Pro Gln Lys Asp Gln Val
                85                  90                  95
Pro Cys Leu Tyr Leu Leu Gln Gln Leu Leu Val Pro Tyr Leu Gly Thr
            100                 105                 110
Phe Pro Val Val Gly Gln Ala Pro Leu Pro Trp Trp Ser Asn Val Thr
        115                 120                 125
Thr Tyr Gly Val Pro Phe Glu Leu Ser Trp Asn Leu Leu His Asn Ile
    130                 135                 140
Val Arg Asn Gly Phe Glu Pro Leu Ser His Leu Ala Glu Ser Gly Val
145                 150                 155                 160
His Ala Phe Asn Gln Thr Pro Pro Glu Glu Cys Val Ser Arg Leu Ser
                165                 170                 175
Val Ser


<210> 39143
<211> 256
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (246)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39143
Lys His His Arg Leu Thr Arg Phe Arg His Phe Gln His His Leu Leu
1               5                   10                  15
Val Thr Pro Glu Glu Glu Thr Trp Leu Leu Lys Glu Lys Ala Pro Leu
            20                  25                  30
Ala Lys Ser Gly Arg Gly Gln Gln Thr Leu Ala Val Glu Phe Gln Asn
        35                  40                  45
Gly Gly Ile Ser Ala Lys Ala Tyr Phe Phe Pro Gly Met Lys Ser Leu
    50                  55                  60
Ala Thr Gly Leu Ser Pro Gly Lys Leu Ile Leu Asp Ser Ile Glu Arg
```

```
65                  70                  75                  80
Leu Ala Leu Pro Gly Leu Lys Glu Pro Val His His Leu Arg Ser Thr
                85                  90                  95
Leu Gly Leu Gln Asp Asp Gly His Pro Thr Asp Thr Ala Ile Ala Pro
            100                 105                 110
Phe Leu Leu Gly Val Asp Leu Cys Thr Pro Glu Arg Ser Arg Leu Lys
        115                 120                 125
Phe Tyr Val Thr Asp Gln Val Val Ser Trp Asp Arg Val Ala Asp Met
    130                 135                 140
Trp Thr Leu Arg Gly Lys Arg Leu Glu Asp Pro Gln Cys Ala Asp Gly
145                 150                 155                 160
Leu Ala Leu Leu Arg Lys Leu Trp Asp Leu Leu Ala Ile Pro Glu Gly
                165                 170                 175
Tyr Arg Ser Asn Ile Arg Pro Asp Phe Ala Phe Gly Thr Pro Pro Pro
            180                 185                 190
Glu Asp Tyr Arg Pro Val Met Met Ala Asn Trp Thr Leu Ser Pro Lys
        195                 200                 205
Lys Lys Phe Pro Asp Pro Gln Ile Tyr Leu Leu Thr Val Gly Met Asn
    210                 215                 220
Asp Ala Val Val Met Asp Ala Leu Val Ala Phe Tyr Glu Val Leu Gly
225                 230                 235                 240
Trp Thr Asp Leu Ala Xaa Thr Tyr Lys Asp Lys Val Ala Ser Tyr Leu
                245                 250                 255
```

<210> 39144
<211> 91
<212> PRT
<213> A.fumigatus

```
<400> 39144
Arg Leu Asp Gly Val Phe Met Phe Val Ile Asn Arg Pro Met Gln Ser
1               5                   10                  15
Arg Pro Ala Ile Thr Ile Leu Glu Ile Ser Asp Phe Thr Val Ser Gln
            20                  25                  30
Glu Asn Phe Gly Asn Leu Ile Leu Ala Leu Leu Gly Ser Lys Met Gln
        35                  40                  45
Ser Cys Phe Pro Ala Val Ile Pro Gly Arg Gly Ile Ser Leu Cys Ile
    50                  55                  60
Glu Lys Lys Phe Asp His Phe Asn Leu Ala Pro Glu Asn Gly Pro Val
65                  70                  75                  80
Gln Arg Cys Arg Ser Ala Cys Ile Phe Glu Arg
                85                  90
```

<210> 39145
<211> 98
<212> PRT
<213> A.fumigatus

```
<400> 39145
Lys Gly Leu Leu Asp Arg Leu Val Lys Gly Gly Thr Lys Phe Lys Lys
1               5                   10                  15
Gln Phe Cys Asp His His Met Ala Leu Glu Cys Cys Ile Val Gln Arg
            20                  25                  30
Ser Pro Thr Ile Asp Ile Phe Asp Val Arg Ser Gly Leu Asp Thr Gln
        35                  40                  45
Gln Tyr Ser Tyr His Ile Leu Met Ser Tyr Val Ser Cys Thr Met Gln
```

```
    50                  55                  60
Asp Cys Ala Lys Phe Val Val Gly Glu Met Trp Leu Ala Ala Pro Leu
65                  70                  75                  80
Asp Lys Gln Leu Asp Asp Gly Leu Met Ser Phe Leu Asn Gly Gln Val
                85                  90                  95
Gln Arg
```

<210> 39146
<211> 86
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (21)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39146

```
Arg Arg Arg His Gly Arg Thr Arg Gly Val Leu Arg Gly Ser Gly Leu
1               5                  10                  15
Asp Gly Ser Gly Xaa His Val Gln Gly Gln Ser Gly Leu Ile Leu Val
            20                  25                  30
Ser Asp Pro Val Trp Trp Val His Ala Thr Thr Gly Trp Asn Gly Ile
        35                  40                  45
Asn Leu Val Asp Ser Pro Gly Pro Asp Phe Thr Lys Thr Asn Tyr Ile
    50                  55                  60
His Ser Gly Val Ser Phe Ser Tyr Arg His Ser Lys Pro Tyr Leu Ser
65                  70                  75                  80
Val Tyr Tyr Ser Pro Phe
                85
```

<210> 39147
<211> 129
<212> PRT
<213> A.fumigatus

<400> 39147

```
Leu Cys Leu Gly Leu Gly Ser Thr Ala Asp Leu Pro Gln Phe Tyr Gly
1               5                  10                  15
Arg Lys Trp Ile Tyr Ile Val Ser Phe Thr Phe Phe Leu Ile Trp Leu
            20                  25                  30
Ile Pro Cys Ala Val Ala Gln Asn Ile Gln Thr Met Ile Val Ser Arg
        35                  40                  45
Phe Phe Asn Gly Leu Ala Gly Ser Ala Phe Leu Ser Val Ala Gly Gly
    50                  55                  60
Thr Val Gly Asp Leu Phe Asp Arg His Glu Leu Ser Ala Leu Met Arg
65                  70                  75                  80
Gly Tyr Thr Val Leu Ile Ser Ser Val Gln Lys Trp Ala Arg Cys Met
                85                  90                  95
Phe Ser Ser Asn Phe Leu Gly Ser Asp Val Asp Arg Ile Glu Ala Arg
            100                 105                 110
Ser Cys Ala Ala Gly Thr Asp Arg Lys Phe Thr Gln Gly Trp Arg Val
        115                 120                 125
His
```

<210> 39148
<211> 160
<212> PRT
<213> A.fumigatus

<400> 39148
Leu Asp Leu Ser Arg Leu Leu Arg Arg Lys Ala Gln Lys Leu Arg Lys
1 5 10 15
Glu Thr Gly Asp Asp Arg Trp Lys Ala Pro Ile Glu Arg Met His Arg
20 25 30
Ser Val Ala Arg Thr Val Leu Arg Ser Thr Tyr Arg Pro Trp Leu Leu
35 40 45
Leu Ala Leu Glu Pro Met Cys Leu Asn Leu Cys Ile Phe Ser Ala Ile
50 55 60
Leu Leu Gly Ile Leu Tyr Leu Phe Phe Gly Ala Phe Gln Leu Val Phe
65 70 75 80
Gly Asn Val Tyr Gly Phe Glu Leu Trp Gln Arg Gly Leu Ser Phe Leu
85 90 95
Gly Leu Phe Val Gly Met Val Phe Ala Ile Leu Ser Asp Pro Phe Trp
100 105 110
Arg Arg Val Tyr Val Arg Leu Glu Lys Lys His Glu Lys Ala Val Gly
115 120 125
Lys Pro Asp Asp Phe Gln Pro Glu Trp Arg Leu Pro Pro Gly Val Tyr
130 135 140
Ser Pro Gly Val Leu Val Ile Gly Ile Ser Asn Gln Asn Arg Pro Cys
145 150 155 160

<210> 39149
<211> 95
<212> PRT
<213> A.fumigatus

<400> 39149
Ala Glu Tyr Arg Arg Ser Ala Asn Ser Ile Cys Cys Thr Asn Arg Thr
1 5 10 15
Ile Leu Val Tyr Ser Gly Val Phe Thr Phe Leu Val Asp Ala Tyr Pro
20 25 30
Thr Tyr Ala Ala Ser Ala Leu Ala Ala Asn Ser Phe Ala Arg Ser Thr
35 40 45
Phe Gly Gly Val Phe Pro Leu Phe Gly Asn Gln Ser Lys His Ser Leu
50 55 60
Pro Val Tyr Ala Ser Ala Val Val Arg Glu Val Glu Leu Glu Gln Gln
65 70 75 80
Val Arg Ser Met Val Tyr Val Asn Gly Gly Ser Leu Ile Leu Ser
85 90 95

<210> 39150
<211> 72
<212> PRT
<213> A.fumigatus

<400> 39150
Ser Arg Asn Tyr Leu Leu Gly Asp Glu Arg Pro Cys Gln Arg Cys Ile
1 5 10 15
Lys Arg Gly Leu Gln Asp Ala Cys His Asp Gly Val Arg Lys Lys Ala

```
            20                  25                  30
Lys Tyr Leu His Asp Ala Pro Asp Gly Ala Leu Met Pro Gly Val Gly
        35                  40                  45
Gly Asn Phe Tyr Asn Asn Ala Met Arg Asn Asn Met Pro Leu Ser His
    50                  55                  60
His Gly Ala Gly Arg Cys Arg Ala
65                  70
```

<210> 39151
<211> 144
<212> PRT
<213> A.fumigatus

<400> 39151

```
Ile Arg Met Ser Thr Thr Gln Gln Thr Asp Ser Val Thr Thr Thr Glu
1               5                   10                  15
Lys Pro Glu Ser Pro Val Asp Glu Asp Ser Ser Ser Glu Lys Ser Thr
            20                  25                  30
Glu Asp Ala Arg Gly Lys Glu Thr Gln Gln Gly Glu Glu Ser Asp Arg
        35                  40                  45
Thr Phe Ala Pro Ile Asn Ala Ser Val Ala Thr Asn Asn Glu Arg Ser
    50                  55                  60
Gln Lys Leu Gln Arg Thr Thr Ser Ser Thr Ile Glu Arg Ser Trp Ser
65                  70                  75                  80
Leu Asn Asp Gly Tyr Ser Cys His Thr Val Asp Glu Glu Ala Glu Asp
                85                  90                  95
Arg Ser Asn Gln Pro Gly Glu Ala Ala Asp Gly Asp Glu Phe Val Val
            100                 105                 110
Gly Trp Asp Asp Asn Asp Pro Lys Asn Pro Arg Asn Met Asn Lys Leu
        115                 120                 125
Arg Arg Trp Leu Ile Val Ile Ile Cys Ser Ser Gly Ser Leu Cys Val
    130                 135                 140
```

<210> 39152
<211> 62
<212> PRT
<213> A.fumigatus

<400> 39152

```
Tyr Glu Asn Arg Val Ser Pro His Lys Gly Thr Glu Phe Val Ala Val
1               5                   10                  15
Lys Gln Ile Ala His Cys Thr Ser Arg Asn Ala Glu Lys Ser Thr Ala
            20                  25                  30
Ser Lys Ala Val Glu Glu Thr Ala Tyr Asp His Ser Leu Asp Val Leu
        35                  40                  45
Arg His Gly Thr Arg Asp Gln Pro Tyr Gln Lys Glu Gly Lys
    50                  55                  60
```

<210> 39153
<211> 78
<212> PRT
<213> A.fumigatus

<400> 39153

```
Ile Ser Arg Pro Glu Ala Ala Gly Gln Lys Ala Ala Glu Ser Thr Pro
1               5                   10                  15
```

```
Pro Ser Val Leu Val Thr Cys Ser Asp Phe Ile Arg Asn Asn Met Ile
            20                  25                  30
Ile Arg Gln Lys Ser Ser Phe Leu Phe Asp Cys Leu Val Ala Leu Pro
        35                  40                  45
Pro Arg Lys Thr Phe Arg Leu Ser Ser Val Arg Asn Asn Cys Ala Met
    50                  55                  60
Arg Tyr Ser Ser Glu Lys Ala Gly Pro Leu Val Arg Ala Asn
65                  70                  75
```

<210> 39154
<211> 121
<212> PRT
<213> A.fumigatus

<400> 39154

```
Ala Ile Gly His Leu Met Thr Asn Ile Asp Arg Gly Leu Leu His Arg
1               5                   10                  15
Ala Phe Ser Val Phe Leu Phe Asp Ser Asn Asn Arg Leu Leu Leu Gln
            20                  25                  30
Gln Arg Ala Ser Glu Lys Ile Thr Phe Pro Asp Met Trp Thr Asn Thr
        35                  40                  45
Cys Cys Ser His Pro Leu Gly Ile Pro Gly Glu Thr Gly Ala Glu Leu
    50                  55                  60
Asp Ala Ala Val Leu Gly Val Lys Arg Ala Ala Gln Arg Lys Leu Asp
65                  70                  75                  80
Gln Glu Leu Gly Ile Lys Ala Glu Gln Val Pro Leu Glu Lys Phe Glu
                85                  90                  95
Phe Phe Thr Arg Ile His Tyr Lys Ala Pro Ser Asp Gly Lys Trp Gly
            100                 105                 110
Glu His Glu Ser Thr Tyr Trp Ile Ser
        115                 120
```

<210> 39155
<211> 172
<212> PRT
<213> A.fumigatus

<400> 39155

```
Ile Leu His Trp Ile Arg Leu Thr Ala Leu Glu Leu Trp Ala Gly Phe
1               5                   10                  15
Pro Phe Thr Asn Thr Asn Asn Gln Gly Gly Tyr Lys Thr Val Gln Ser
            20                  25                  30
Ser Gly Ser Leu Ser His Phe Leu Arg Pro Val Ala Phe Gln Ala Asn
        35                  40                  45
Tyr Gln Val Val Phe Phe Val Phe Leu Asn Ile Asp Arg His Cys Pro
    50                  55                  60
Thr Arg Thr Lys Met Thr Ser Thr Ala Thr Val Thr Val Pro Pro Arg
65                  70                  75                  80
Ile Thr Ala Glu Asn Val Ala Thr Leu Phe Pro Glu Val Asp Thr Ser
                85                  90                  95
Leu Ala Arg Glu Val Phe Pro Ser Thr Val Glu Gly Ser Ala Lys Asp
            100                 105                 110
Ser Glu Glu Leu Ala Gly Tyr Asp Glu Glu Gln Val Arg Leu Met Asp
        115                 120                 125
Glu Val Cys Ile Val Leu Asp Asp Asp Asp Lys Pro Ile Gly Ser Ala
    130                 135                 140
```

```
Ser Lys Lys Ala Cys Glu Tyr Leu Asn Leu Leu Phe Leu Ser Leu Gly
145                 150                 155                 160
Pro Ser Gln Lys Gln Tyr Thr Asp Gln Cys Glu Arg
                165                 170
```

<210> 39156
<211> 279
<212> PRT
<213> A.fumigatus

<400> 39156

```
Ile Val Thr Met Val Arg Ser Gln Gly Ser Arg Ser Leu Asn Ala Asp
1               5                   10                  15
Glu Gln Thr Tyr His Gly Arg Arg Met Ser Ser Ser Pro Leu Ala Glu
            20                  25                  30
Thr Ala Ile Ala Arg Asp Leu Glu Asn Tyr Ala Asp Asn Glu Asp Ser
        35                  40                  45
Ile Asn Asn Thr Glu Asp Glu Glu His Ser Glu Ala Ser Thr Val Arg
    50                  55                  60
Ala Ile Asn Ser Gln Pro Gly Thr Thr Pro His Ser Leu Val Gly Ser
65                  70                  75                  80
Tyr Gln Arg Pro Ser Phe Phe Thr Thr Val Ser His Ser Thr Val Val
                85                  90                  95
Pro His Arg Gly Glu Pro Glu Cys Leu Ser Trp Arg Glu Arg Asp Gln
            100                 105                 110
Ala Ile Glu Glu Glu Arg Arg Leu Leu Ala Asp Asn His Val Ile Pro
        115                 120                 125
Asp Lys Ile Arg Ala Gly Asp Gln Asn Gly Arg Arg Arg Arg Phe Ser
    130                 135                 140
Gly Leu Leu Ser Arg Ser Leu Arg Ser Gly Asp Ser Leu Glu Ser Ser
145                 150                 155                 160
Ser Gly Val Glu Arg Arg Glu Arg Thr Glu Ala Val Ala Val Pro Thr
                165                 170                 175
Glu Thr Thr Ser Leu Leu Glu Ala Gly Asn Gly Gly Ser Gly Tyr Ser
            180                 185                 190
Leu Arg Asp Ala Glu Ala Ile Asp Arg Lys Trp Glu Glu Ala Val Ile
        195                 200                 205
Ala Gly Leu Ile His Thr Thr Trp Lys Arg Glu Ala Leu Val Ile Ser
    210                 215                 220
Arg Tyr Ala Ala Pro Leu Thr Val Thr Phe Leu Leu Gln Tyr Ser Leu
225                 230                 235                 240
Thr Val Ala Ser Ile Phe Ser Val Gly His Leu Gly Lys Lys Glu Leu
                245                 250                 255
Gly Ala Val Ser Leu Ala Ser Met Thr Ala Asn Ile Thr Gly Tyr Ala
            260                 265                 270
Gly Ser Phe Ser Ser Pro Phe
        275
```

<210> 39157
<211> 101
<212> PRT
<213> A.fumigatus

<400> 39157

```
Glu Tyr Val Leu Asp Ile Leu Met Ala Phe Gly Phe Ala Phe Ala Ala
1               5                   10                  15
```

```
Val Thr Asp Thr Gln Ile Leu Val Asp Tyr Ile Leu Phe Ile Gln Ala
            20                  25                  30
Asp Val Asp Leu Asn Val Asn Pro Asn Glu Val Arg Asp Thr Lys Tyr
        35                  40                  45
Val Ser Ala Gln Glu Leu Lys Gln Met Phe Thr Gln Pro Gly Leu Lys
    50                  55                  60
Phe Thr Pro Trp Phe Lys Leu Ile Cys Asn Ser Met Leu Phe Glu Trp
65                  70                  75                  80
Trp Ser Tyr Leu Gly Thr Ala Asp Leu Asp Lys Tyr Lys Gly Glu Lys
                85                  90                  95
Glu Ile Arg Arg Met
            100
```

<210> 39158
<211> 65
<212> PRT
<213> A.fumigatus

<400> 39158

```
Phe Leu Asp Lys Glu Ala Ile Asp Ile Phe Gly Ser Thr Glu Leu Asp
1               5                   10                  15
Asn Val Ile Thr Leu Lys Phe His Gly Lys Pro Leu Ile Val Leu Ala
            20                  25                  30
Gly His Lys Ser Tyr Glu Lys Thr Gly Ile Glu Ser Phe Pro Pro Pro
        35                  40                  45
His Phe Phe Pro Gln Lys Pro Thr Ala Ala Thr Val Glu Phe Pro Leu
    50                  55                  60
Gln
65
```

<210> 39159
<211> 63
<212> PRT
<213> A.fumigatus

<400> 39159

```
Leu Cys His Ile Val Tyr Gln Gly Leu Ala Thr Ser Leu Asp Thr Leu
1               5                   10                  15
Cys Ser Gln Ala Tyr Gly Ser Gly Lys Lys Lys Leu Val Gly Leu Gln
            20                  25                  30
Met Gln Lys Met Val Phe Phe Leu Trp Thr Ile Thr Ile Pro Leu Ala
        35                  40                  45
Ser Ile Val Phe Thr Leu Ala Thr Arg Arg Thr Thr His Asn Ser
    50                  55                  60
```

<210> 39160
<211> 335
<212> PRT
<213> A.fumigatus

<400> 39160

```
Ile Pro Lys Ser Asp Asp Pro Lys Ser Val Ser Val Tyr Ser Ala Ala
1               5                   10                  15
Glu Ser Leu Leu Cys Thr Val Gln Tyr His Gln Glu Tyr Arg Gln Ala
            20                  25                  30
Ile Ala His Pro Thr Glu Tyr Thr Met His Ile Phe Ile Thr Gly Ala
```

```
        35                  40                  45
Thr Gly Phe Ile Gly Arg Val Val Ser Glu Leu Ala Ile Gln Gln Gly
    50                  55                  60
His Thr Val His Gly Leu Ser Arg Ser Pro Gln Gly Asp Glu Ile Leu
65                  70                  75                  80
Thr Ser Ile Gly Ala Ile Pro Ile Arg Gly Asp Leu Ala Thr His Asn
                85                  90                  95
Ile Leu Arg Glu Gln Ser Ala Lys Ala Asp Val Val Phe His Leu Ala
            100                 105                 110
Phe Asp His Asp Phe Gly Lys Ser Tyr Asp Gln Ile Ile Lys Leu Asp
        115                 120                 125
Thr Glu Ala Val Asp Ala Leu Ala Ala Pro Leu Val Gly Thr Ser Lys
    130                 135                 140
Pro Leu Ile Ala Ala Ser Gly Ile Leu Thr Val Arg Pro Asp Gln Gly
145                 150                 155                 160
Asp Cys Val Val Asn Glu Ser Ala Pro Tyr Thr Lys Asn Thr Arg Val
                165                 170                 175
Arg Arg His Val Cys Glu Glu Asn Ala Leu Ser Trp Ala Glu Arg Gly
            180                 185                 190
Val Arg Val Asn Val Val Arg Leu Pro Pro Tyr Val Tyr Gly Arg Ala
        195                 200                 205
Asn Glu Thr Gly Phe Ala Ala Arg Met Val Arg Met Ala Val Asp Asn
    210                 215                 220
Gly Val Ser Gly Tyr Ile Ala Ser Val Lys Asp Arg Cys Val Thr Ser
225                 230                 235                 240
Val Tyr Val Asp Asp Ala Ala Ala Leu Phe Leu Leu Leu Ala Ser Asp
                245                 250                 255
Lys Thr Val Lys Ala Gly Glu Ile Phe His Gly Thr Ala Asp Trp Asp
            260                 265                 270
Thr Thr Tyr Gly Met Leu Ala Lys Ala Ile Gly Arg Ala Ser Trp Gly
        275                 280                 285
Pro Gly Gln Thr Ile Arg Ala Glu Glu Ala Glu Glu Lys Leu Gly Gly
    290                 295                 300
Phe Pro Val Lys Leu Leu Trp Ala Asp Asn Ser Gly Phe Glu Trp Lys
305                 310                 315                 320
Ala Cys Arg Glu Thr Gly Val Glu Thr Arg Gln Ala Gln Ala Trp
                325                 330                 335
```

<210> 39161
<211> 72
<212> PRT
<213> A.fumigatus

```
<400> 39161
Val Ala Asn Leu Glu Glu Ala Val Ile Met Phe Leu Tyr Gly Thr Phe
1               5                   10                  15
Pro Glu Trp Arg Trp Lys Lys Lys Ala Ser Asp Lys Ile Ser Ser Met
            20                  25                  30
Gly His Arg Val Tyr Tyr Leu Asn Val Thr Gly Gln Asn Ile Met Val
        35                  40                  45
Asp Leu Phe Tyr Leu Met Arg Asp Ile Glu Ile Ala Glu Ser Ser Glu
    50                  55                  60
Arg Lys Lys Asn Leu Thr Val Ser
65                  70
```

<210> 39162

<211> 120
<212> PRT
<213> A.fumigatus

<400> 39162
Pro Gly Pro Gln Leu Ala Arg Pro Ile Ala Leu Ala Ser Ile Pro Tyr
1 5 10 15
Val Val Ser Gln Ser Ala Val Pro Trp Asn Ile Ser Pro Ala Leu Thr
20 25 30
Val Leu Ser Asp Ala Ser Ser Lys Asn Asn Ala Ala Ala Ser Ser Thr
35 40 45
Tyr Thr Leu Val Thr His Leu Ser Leu Thr Asp Ala Ile Tyr Pro Leu
50 55 60
Thr Pro Leu Ser Thr Ala Met Arg Thr Ile Leu Ala Ala Asn Pro Val
65 70 75 80
Ser Phe Ala Arg Pro Tyr Thr Tyr Gly Gly Lys Arg Thr Thr Leu Thr
85 90 95
Arg Thr Pro Arg Ser Ala His Asp Ser Ala Phe Ser Ser His Thr Cys
100 105 110
Arg Leu Thr Leu Val Phe Leu Val
115 120

<210> 39163
<211> 143
<212> PRT
<213> A.fumigatus

<400> 39163
Val Glu Arg Ile Arg Cys Val Phe Arg Thr Ser Glu Gln Val Pro Thr
1 5 10 15
Gly Gln Gly Gln Glu Leu Pro Ala Gly His His Gly Val Gly Phe Tyr
20 25 30
Tyr Asp Ile Gln Pro Leu Leu Ala Ile Pro Asp Val Lys Ala Phe Ile
35 40 45
Asn Val Arg Lys His Ala Lys Ser Asp Leu Ala Ala Ala Glu Thr Val
50 55 60
Ile Ser Phe Leu Glu Arg His Gly Gln Gly His His Asn Pro Arg Ala
65 70 75 80
Tyr Leu Asn Val Leu Arg Asp Ile Val Pro Ala Glu Glu Leu Glu Thr
85 90 95
Arg Val Gly Ala Gln Ala Phe Tyr Ser Val Ala Val Lys Lys Glu Glu
100 105 110
Leu Asp Ile Thr Ala Tyr Phe Ile Pro Gln Val Tyr Arg Arg Phe Ala
115 120 125
Ser Val Gln Val Glu Leu Asn Gly Gln Arg Arg Ser Arg Phe Glu
130 135 140

<210> 39164
<211> 73
<212> PRT
<213> A.fumigatus

<400> 39164
Lys Met Leu Asp Leu Ser Arg Thr Thr Asn Gln Gly Ile Arg Asn Phe
1 5 10 15
Ser Ala Thr Pro Thr Val Ser Val Leu Lys Cys Glu Ala Asp Glu Asp

```
            20                  25                  30
Trp Leu Ile Glu Gly Thr Gln Thr Pro Ala Val Gly Lys Gly Thr Ser
        35                  40                  45
Ile Val Val Gly Ala Leu Thr Asp Ile Gly Leu Ser Phe Ala Cys Ala
    50                  55                  60
Phe Gln Glu Thr Leu Asp Thr Lys Phe
65                  70
```

<210> 39165
<211> 60
<212> PRT
<213> A.fumigatus

<400> 39165

```
Ser Val Phe Val Ser Phe Ser Pro Leu Ile Lys Met Arg Asp Gln Ala
1               5                   10                  15
Lys Pro Ala His Gln Asp Leu Ala Gly Lys Lys Ile Asp Val Ser Ala
            20                  25                  30
Arg Gly Leu Leu Ala Trp Ile Thr Phe Tyr Ala Ile Ile Thr Val Leu
        35                  40                  45
Gln Met Leu Leu Thr His Tyr Lys Ala Glu Arg Val
    50                  55                  60
```

<210> 39166
<211> 155
<212> PRT
<213> A.fumigatus

<400> 39166

```
Pro Gly Ser Leu Ser Ser Gly Lys Ala Phe Pro Ser Phe Leu Ser Ala
1               5                   10                  15
Thr Thr Leu Ile Tyr Ser Phe Tyr Phe Arg Asp Ser Glu Glu Asp Ala
            20                  25                  30
Pro Ala Glu Tyr Pro Pro Asp Gln Pro Glu Ala Asp Leu Glu Asp Asp
        35                  40                  45
Gly Ala Ala Tyr Gly Ala Glu Glu Ala Glu Leu Glu Ala Ala Leu Ile
    50                  55                  60
Arg Glu Leu Glu Glu Ala Glu Arg Glu Ala Ala Lys Gly Gly Asp His
65                  70                  75                  80
Glu Met Glu Gly Ala Glu Glu Thr Ala Gly Lys Asp Asp Glu Glu Glu
                85                  90                  95
Asp Leu Ser Asp Ala Glu Ser Glu Asp Ile Glu Asp Glu Ser Asp Asp
            100                 105                 110
Glu Glu Asp Asp Leu Asp Glu Asp Glu Gly Gly Asp Arg Asp Glu Asp
        115                 120                 125
Val Glu Met Gly Asp Asp Thr Glu Ser Lys Asp Thr Asn Ala Ala Ser
    130                 135                 140
Gly His His Gln Gln Gln Asp Ile Met Val His
145                 150                 155
```

<210> 39167
<211> 91
<212> PRT
<213> A.fumigatus

<400> 39167

```
Arg Tyr His Ile Ser Ile Thr Met Ser Val Val Ser Leu Leu Gly Val
1               5                  10                  15
Lys Ile Val Asn Asn Pro Ala Pro Phe Leu Ala Pro Tyr Gln Phe Glu
            20                  25                  30
Ile Thr Phe Glu Cys Leu Glu Gln Leu Gln Lys Gly Asn Ile Leu Lys
        35                  40                  45
Met Phe Phe Thr Ala Glu Val Arg Phe Thr Asn Asn Arg Val Ala Arg
    50                  55                  60
Leu Gly Met Glu Thr His Leu Arg Arg Leu Cys Tyr Ile Val Ser Gln
65                  70                  75                  80
Ser Cys Gln His Thr Asn Ala Gly Leu Leu Cys
                85                  90
```

<210> 39168
<211> 120
<212> PRT
<213> A.fumigatus

<400> 39168

```
Val Lys Ala Ala Ser Ile Gln Met Gln Val Cys Cys Ala Asp Leu Ser
1               5                  10                  15
Ser Ser Glu Tyr Asp Gln Glu Leu Asp Ser Leu Leu Val Gly Pro Ile
            20                  25                  30
Pro Val Gly Val Asn Lys Phe Leu Phe Glu Ala Asp Ala Pro Asp Leu
        35                  40                  45
Lys Arg Ile Pro Thr Ser Glu Ile Leu Gly Val Thr Val Ile Leu Leu
    50                  55                  60
Thr Cys Ser Tyr Asp Gly Arg Glu Phe Val Arg Val Gly Tyr Tyr Val
65                  70                  75                  80
Asn Asn Glu Tyr Asp Ser Glu Glu Leu Thr Gln Asp Pro Pro Ala Lys
                85                  90                  95
Pro Ile Ile Glu Arg Ile Arg Arg Asn Ile Leu Ala Glu Lys Pro Arg
            100                 105                 110
Val Thr Arg Phe Ala Ile Lys Trp
        115                 120
```

<210> 39169
<211> 141
<212> PRT
<213> A.fumigatus

<400> 39169

```
Thr Ala Arg Cys Leu Val His His Asp Val Leu Leu Leu Met Met Pro
1               5                  10                  15
Ala Gly Gly Val Gly Ile Phe Arg Phe Gly Val Ile Ala His Leu Tyr
            20                  25                  30
Ile Phe Ile Thr Ile Ser Thr Leu Ile Leu Val Lys Val Ile Leu Phe
        35                  40                  45
Ile Val Thr Phe Ile Leu Tyr Ile Phe Thr Leu Arg Val Gly Glu Val
    50                  55                  60
Phe Phe Leu Val Val Leu Ala Ser Ser Phe Leu Ser Pro Phe His Leu
65                  70                  75                  80
Val Val Thr Ala Leu Gly Gly Leu Ser Phe Ser Leu Phe Glu Leu Ser
                85                  90                  95
Asp Gln Arg Ser Leu Glu Phe Gly Phe Phe Ser Ala Val Ser Ser Ala
            100                 105                 110
```

```
Val Val Phe Gln Ile Arg Phe Arg Leu Val Arg Trp Val Phe Gly Trp
        115                 120                 125
Ser Ile Leu Leu Arg Ile Pro Glu Ile Glu Arg Val Asn
    130                 135                 140

<210> 39170
<211> 317
<212> PRT
<213> A.fumigatus

<400> 39170
Pro Val Met Ala Glu Glu Asp Ala Glu Lys Ala Phe Phe Gln Ala Gln
1               5                   10                  15
Thr Met Asn Ala Glu Ser Val Asp Tyr Lys Ala Val Glu Glu His Gly
            20                  25                  30
Ala Asp Ser Ser Asp Ser Asp Asp Tyr Asp Pro Ser Lys Thr Leu Gln
        35                  40                  45
Asp Gln Tyr Ser Ser Ser Met Thr Asp Leu Lys Gln Ser Glu Asn Val
    50                  55                  60
Ser Ser Ser Ala Ser Pro Glu Pro Asn Pro Thr Glu Gln Asn Ser Val
65                  70                  75                  80
Gln Pro Asp His Asp Pro Ser Gln Pro Asp Gly Ala Ser Tyr Pro Ser
                85                  90                  95
Gln Thr Pro Pro Arg Asp Glu Ser Arg Thr Ser Thr Met Val Pro Thr
            100                 105                 110
Ser Gly Thr Ser Val Gln Pro Lys Thr Arg Thr Ile Gly Gly Phe Val
        115                 120                 125
Val Glu Asp Glu Asp Glu Asp Asp Ala Gly Asp Ala Asp Tyr Glu Pro
    130                 135                 140
Pro Ala Val Leu Gly Val Glu Asp Met Asn Thr Val Ala Thr Asn Val
145                 150                 155                 160
Pro Gln Gln Ser Val Ser Gly Asn Glu Asn Glu Ala Ser Ser Thr Pro
                165                 170                 175
Asp Val Ser Leu Asp Asp Ala Ala Gln Gln Ser Ala Ser Leu Asn Asn
            180                 185                 190
Val Ser His Asn Ser Tyr Ser Pro Ala Pro Ala Val Ala Pro Lys Ser
        195                 200                 205
Asp Val Ala Val Ala Ala Gly Gln Ser Leu Tyr Asn Ser His Ala Leu
    210                 215                 220
Gln Ser Gly Asn Val Gln Asp Ser Ala Thr Ala Thr Pro Thr Pro Asp
225                 230                 235                 240
Ser Pro Ser Thr Ser Lys Gly Arg Leu Pro His Asp Arg Val Gly Ile
                245                 250                 255
Leu Glu Asp Arg Ile Gln Glu Asp Pro Arg Gly Asp Ile Pro Ala Trp
            260                 265                 270
Leu Glu Leu Ile Asn Glu His Arg Ser Arg Asn Arg Phe Asp Ser Ala
        275                 280                 285
Arg Asp Val Phe Glu Arg Phe Leu Lys Val Phe Pro Phe Ala Val Ser
    290                 295                 300
Thr Leu Lys Ser Pro Gln His Arg Trp Glu Lys Ala Asp
305                 310                 315

<210> 39171
<211> 177
<212> PRT
<213> A.fumigatus
```

<400> 39171
Ser His Leu Ser Thr Asp Gly Arg Lys Leu Thr Asp Pro Gln Ala Glu
1 5 10 15
Gln Trp Val Ala Tyr Ala Lys Met Glu Ser Glu Leu Asn Asp Leu Tyr
20 25 30
Arg Leu Glu Gln Ile Phe Asn Arg Thr Leu Leu Thr Ile Pro Asp Val
35 40 45
Gln Leu Trp Ser Val Tyr Leu Asp Tyr Val Arg Arg Arg Asn Pro Leu
50 55 60
Thr Thr Asp Thr Thr Gly Gln Ala Arg Arg Ile Ile Ser Ser Ala Tyr
65 70 75 80
Glu Leu Ala Phe Gln His Ile Gly Val Asp Lys Asp Ser Gly Ser Ile
85 90 95
Trp Ser Asp Tyr Val Gln Phe Ile Lys Ser Gly Pro Gly Asn Val Gly
100 105 110
Gly Ser Gly Trp Gln Asp Gln Gln Lys Met Asp Leu Leu Arg Lys Ala
115 120 125
Tyr Gln Lys Ala Ile Cys Val Pro Thr Gln Ala Val Asn Thr Leu Trp
130 135 140
Lys Glu Tyr Asp Gln Phe Glu Met Gly Leu Asn Lys Leu Thr Val Ser
145 150 155 160
Ser Ser His Thr Val Lys Val Leu His Phe Leu Ile Ser Ser Pro Pro
165 170 175
Leu

<210> 39172
<211> 245
<212> PRT
<213> A.fumigatus

<400> 39172
Pro Glu Met Trp Phe Asp Ala Ala Glu Phe Cys Ile Leu Lys Asn Leu
1 5 10 15
Glu Ser Glu Gly Asn Glu Phe Leu Lys Gln Gly Met Glu Ala Asn Pro
20 25 30
Glu Ser Cys Leu Leu Ala Phe Lys Arg Ala Asp Arg Leu Glu Ile Thr
35 40 45
Ser Glu Ser Glu Gln Asp Pro Ile Lys Arg Gly Ala Lys Val Arg Glu
50 55 60
Pro Tyr Asp Lys Leu Leu Asp Ala Leu Tyr Asp Leu Ile Ala Lys Ala
65 70 75 80
Arg Thr Arg Glu Ala Gln Asp Val Ala Arg Leu Glu Glu Thr Phe Ala
85 90 95
Lys Met Asn Ala Asp Asn Pro Pro Ala Lys Thr Asp Asp Asp Asp Asp
100 105 110
Asp Gln Ser Glu Ser Lys Ala Arg Glu Ser Val Lys Asn Ala Gln Ile
115 120 125
Asp Ala Val Arg Lys Ala His Ala Ile Gln Ile Gly Ile Leu Ser Lys
130 135 140
Thr Ile Ser Phe Ala Trp Ile Ala Leu Met Arg Ala Met Arg Arg Ile
145 150 155 160
Gln Gly Lys Gly Lys Pro Gly Glu Thr Pro Gly Ser Arg Gln Val Phe
165 170 175
Ala Asp Ala Arg Lys Arg Gly Arg Ile Thr Ser Asp Val Tyr Ile Ala

```
            180                 185                 190
Ser Ala Leu Ile Glu Tyr His Cys Tyr Lys Asp Pro Ala Ala Thr Lys
        195                 200                 205
Ile Phe Glu Arg Gly Ala Lys Leu Phe Pro Asp Asp Glu Asn Phe Ala
    210                 215                 220
Leu Glu Tyr Leu Lys His Leu Ile Asp Ile Asn Asp Ile Ile Ser Lys
225                 230                 235                 240
Leu Leu Gln Cys Pro
                245
```

<210> 39173
<211> 260
<212> PRT
<213> A.fumigatus

<400> 39173

```
Trp Asn Pro Ile Leu Asn Arg Leu Pro Asp Ala Arg Ala Val Phe Glu
1               5                   10                  15
Met Thr Val Arg Lys Leu Ala Ser Asn Pro Asp Asn Val His Lys Thr
            20                  25                  30
Lys Pro Ile Phe Ala Phe Leu His Glu Tyr Glu Ser Arg Tyr Gly Asp
        35                  40                  45
Leu Val Gln Val Ile Asn Leu Glu Asn Arg Met Arg Glu Leu Phe Pro
    50                  55                  60
Glu Asp Pro Thr Leu Glu Gln Phe Ala His Arg Tyr Ser Ala Pro Thr
65                  70                  75                  80
Phe Asp Pro Thr Ala Val Arg Pro Ile Ile Ser Pro Ser Gln Met Arg
                85                  90                  95
Pro Lys Ala Val Phe Pro Thr Ser Glu Gln Pro Met Ser Arg His Gly
            100                 105                 110
Thr Pro Thr Pro Arg Tyr Pro Gly Ser Val Thr Asp Ser Pro Lys Arg
        115                 120                 125
Pro Leu Glu Asp Phe Asp Asp Asp Tyr Asn Arg Pro Arg Lys Phe Val
    130                 135                 140
Arg Ala Glu Ser Pro Leu Lys Thr Ser Gln Arg Arg Gln Leu Asp Gln
145                 150                 155                 160
Gln Lys Arg Ser Gln Leu Ser Asn Val Gln Thr Gly Ser Gln Phe Arg
                165                 170                 175
Ser Gln Gly Ser Pro Ala Pro Leu Pro Arg Asp Ile Val His Leu Leu
            180                 185                 190
Ser Ile Ile Pro Pro Ala Ser Ala Tyr Thr Ala Gly Arg Phe Ser Pro
        195                 200                 205
Glu Lys Leu Val Asp Leu Ile Arg Arg Ile Glu Met Pro Ser Ser Ile
    210                 215                 220
Ser Gln Ile Pro Leu Pro Gln Ser Ala Arg Gly Leu Gly Thr Thr Gln
225                 230                 235                 240
Thr Pro Met Gln Pro Phe Ser Gly Lys Ala Ser Pro Ser Leu Ser Val
                245                 250                 255
Arg Ala Val Tyr
            260
```

<210> 39174
<211> 203
<212> PRT
<213> A.fumigatus

<400> 39174
Cys Cys His Cys Trp Pro Phe Arg Pro Leu Pro Pro Ser Val Pro Arg
1 5 10 15
Arg Pro Thr Pro Ala Ala Thr Leu Pro Thr Val Ser Pro Leu Val Gly
20 25 30
Val Asn Leu Thr Gly Leu Thr Arg Val Ala Thr Cys Asp Pro Asp Thr
35 40 45
Gly Leu Lys Thr Trp Ser Leu Ser Thr Asp Phe Thr Gln Gly Ser Ser
50 55 60
Asp Gly Trp Thr Ala Ile Ser Gly Asn Val Thr Tyr Gly Ser Asn Gly
65 70 75 80
Ala Glu Phe Thr Ile Asn Lys Arg Tyr Asp Ala Pro Thr Leu Glu Thr
85 90 95
Asn Phe Tyr Ile Phe Phe Gly Glu Val Glu Val Val Met Arg Ala Ala
100 105 110
Asn Gly Thr Gly Ile Val Ser Ser Ile Val Met Glu Ser Asp Asp Leu
115 120 125
Asp Glu Ile Asp Trp Val Ser Pro Val Leu Asp Asp Thr Thr Glu Arg
130 135 140
Ile Leu Met Lys Ile Gly Met His Trp Asn Arg His Tyr Pro Asp Pro
145 150 155 160
Asn Gln Leu Leu Trp Gln Gly Gln His Asp His Leu Arg Pro Arg Asn
165 170 175
Leu Gly Asp Arg Gln Gln Pro Ser Gly Arg Ile Pro His Val Gln Ser
180 185 190
Arg Leu Asp Arg Cys Gly His His Leu Val His
195 200

<210> 39175
<211> 402
<212> PRT
<213> A.fumigatus

<400> 39175
Asn Leu Ser Met Thr Gly Leu Ser Ser Tyr Asp Glu Ile Leu Asn Ser
1 5 10 15
Leu Glu Glu Asp Ser Tyr Tyr Ala Val Ser Ser Asn Asp Leu Ser Pro
20 25 30
Ser Leu Gln Ala Trp Ser Asn Asn Thr Asp Leu Glu Glu Leu Asp Leu
35 40 45
Ser Ser Leu Asn Leu Ser Ser Ser Ser Asp Ser Ser Ser Trp Ile Asp
50 55 60
Pro Leu Glu Ser Ala Ile Thr Asp Thr Arg Asn Gly Ser Ser Pro Val
65 70 75 80
Leu Ser Thr Leu Ser Gln Phe Thr Ala Leu Leu Ala Gln Thr Gly Ile
85 90 95
His Gly Pro Arg Ile Leu Lys Ala Phe Asn Leu Ser Arg Arg Gly Thr
100 105 110
Lys Ile Gly Ala Gly Ala Gln Phe Thr Val Phe Thr Asp Pro Ile Tyr
115 120 125
Glu Gly Gln Val Ile Lys Arg Val Asn Val Pro Leu Ser Ser Lys Ala
130 135 140
Glu Gln Arg Phe Ala Ala Ser Thr Asp Tyr Arg Leu Gln Leu Arg Thr
145 150 155 160
Leu Gly Leu Glu Val Leu Ser Leu Cys Asn Pro Met Leu Arg Ala His
165 170 175

```
Pro Asn Ile Thr Ser Leu Leu Ala Trp Gly Phe Asp Phe Pro Phe Ala
            180                 185                 190
Asp Met Ala Val Pro Val Leu Phe Met Glu Ala Ala Met Met Pro Leu
        195                 200                 205
Ser Asp Phe Leu Gly Ala Glu Thr Arg Ala Val Glu Val Arg Tyr Gln
    210                 215                 220
Leu Ser Leu Asp Val Ala Asn Gly Leu Glu Ala Leu Gln Asn Leu Asn
225                 230                 235                 240
Ile Val His Gly Asp Val Lys Pro Glu Asn Val Leu Val Phe Ala Gly
                245                 250                 255
Pro Ser Asp Arg Val Pro Phe Arg Ala Lys Leu Ser Asp Phe Gly Val
            260                 265                 270
Cys Leu Asp Leu Glu Ala Pro Asp Ala Lys Phe Met Leu Ser Asp Tyr
        275                 280                 285
Arg Gly Thr Gln Ala Trp Leu Ala Pro Glu Val Val Ser Glu Asp Leu
    290                 295                 300
Asp Arg Phe Gly Gly Phe Ser Ser Glu Leu Met Phe Arg Phe Asp Ala
305                 310                 315                 320
Tyr Ser Phe Gly Leu Val Leu Leu Ser Val Phe Thr Gly Asn Gly Ala
                325                 330                 335
Ala Pro Val Leu Asp Glu His Pro Glu Asn Val Pro Asp Gln Val Phe
            340                 345                 350
Glu Leu Leu Tyr Gly Gln Glu Asp Ile Pro Ser Asn Ile Arg Ile Glu
        355                 360                 365
Leu Arg Lys Ala Ile Ala Lys Leu Leu Ser Glu Asp Pro Arg Lys Arg
    370                 375                 380
Pro Leu Pro Ser Pro Gly Leu Ile Lys Thr Asp Ser Pro Thr Tyr Ala
385                 390                 395                 400
Ala Trp
```

<210> 39176
<211> 245
<212> PRT
<213> A.fumigatus

<400> 39176

```
Glu Cys Thr Gly Thr Asp Thr Thr Gln Ile Gln Thr Asn Tyr Phe Gly
1               5                   10                  15
Lys Gly Asn Thr Thr Thr Tyr Asp Arg Ala Ile Trp Glu Thr Val Ser
            20                  25                  30
Ser Pro Gln Asp Glu Phe His Thr Tyr Lys Val Val Trp Thr Ala Ala
        35                  40                  45
Ala Ile Thr Trp Tyr Ile Asp Gly Thr Ala Val Arg Thr Leu Glu Tyr
    50                  55                  60
Ala Asp Ala Val Asp Gly Lys Asn Tyr Pro Gln Thr Pro Met Val Val
65                  70                  75                  80
Lys Leu Gly Ile Trp Ala Gly Gly Asp Pro Ser Asn Ser Glu Gly Thr
                85                  90                  95
Ile Glu Trp Ala Gly Gly Glu Thr Asp Tyr Asp Glu Val Pro Phe Thr
            100                 105                 110
Met Tyr Val Lys Ser Val Asn Ile Ile Asn Tyr Asn Pro Ala Ala Ser
        115                 120                 125
Tyr Asn Tyr Thr Asp Lys Thr Gly Ser Tyr Thr Ser Ile Val Ala Ser
    130                 135                 140
Asn Ser Thr Thr Gly Ser Gly Ile His Ser Ser Asn Ser Val Ser Val
```

```
145                 150                 155                 160
Phe Ala Pro Ser Ser Ser Thr Ser Thr Phe Thr Ser Ser Arg Ala Leu
                165                 170                 175
Ile Ala Thr Ala Ser Thr Tyr Pro Ala Ser Val Gln Thr Ser Ser Ser
            180                 185                 190
Gly Val Val Ser Leu Ser Ser Ser Ser Ala Ser Ser Ser Ser Ala Ala
        195                 200                 205
Ala Ser Ser Thr Ser Gly Ser Ala Ser Ala Val Phe Thr Gly Ala Ala
    210                 215                 220
Val Ala Asn Leu Pro Ser Phe Phe Phe Thr Val Phe Phe Ala Leu Ala
225                 230                 235                 240
Ile Ala Leu Ala Phe
                245
```

<210> 39177
<211> 104
<212> PRT
<213> A.fumigatus

<400> 39177

```
Leu Tyr Ala Val Ser Val Val Tyr Met Leu Ile Pro Pro Ala Arg Thr
1               5                   10                  15
Ser Thr Thr Phe Ser Trp Lys Ser Thr Ala Asn Ala Gly Pro Ser Leu
            20                  25                  30
Pro Leu Asn Ser Pro Phe Arg His Ala Asn Thr Ala Phe Val Tyr Pro
        35                  40                  45
Thr Pro Ile Ser Phe Gly Asn Pro Cys Cys Ala Ser Ala Ile Arg Ser
    50                  55                  60
Ser Ser Thr Phe Phe Asp Leu Gly Arg Arg Pro Leu Val Ser Ala Ser
65                  70                  75                  80
Arg Ile Leu Ala Ser Ile Ser Arg Asp Ile Val Thr His Ser Pro Ile
                85                  90                  95
Ser Ser Arg Thr Thr Pro Ser Ala
            100
```

<210> 39178
<211> 134
<212> PRT
<213> A.fumigatus

<400> 39178

```
Gln Thr Pro Ala Thr Ala Pro Arg Pro Ser Ser Ala Pro Phe Arg Ser
1               5                   10                  15
Ser Gln Pro Ser Ser Pro Lys Pro Glu Ser Thr Ala Pro Ala Ser Ser
            20                  25                  30
Lys Pro Ser Ile Ser Pro Asp Glu Val Arg Lys Leu Ala Gln Ala Pro
        35                  40                  45
Ser Ser Pro Phe Ser Pro Thr Pro Ser Thr Lys Ala Arg Leu Ser Ser
    50                  55                  60
Ala Ser Met Ser His Ser Pro Val Arg Pro Ser Ser Ala Ser Pro Arg
65                  70                  75                  80
Ala Arg Thr Thr Ala Cys Ser Cys Ala Arg Trp Gly Trp Arg Phe Tyr
                85                  90                  95
Arg Cys Val Ile Arg Cys Cys Ala Arg Ile Pro Thr Ser Pro Val Cys
            100                 105                 110
Trp Arg Gly Asp Ser Ile Ser Pro Leu Arg Ile Trp Arg Cys Arg Cys
```

```
        115                 120                 125
Cys Ser Trp Arg Leu Arg
    130

<210> 39179
<211> 255
<212> PRT
<213> A.fumigatus

<400> 39179
Glu Asp Ser Asp Pro Ser Leu Val Cys Ser Pro Ser Pro Leu Glu Asn
1               5                  10                  15
Asp Leu Thr Ala Ala Val Pro Leu Ser Phe Pro Thr Gly Thr Pro Leu
            20                  25                  30
His Trp Ala Cys Phe Phe Arg Asn Leu Thr Ala Val Glu Ala Leu Ile
        35                  40                  45
Ser Leu Gly Ala Asn Ile Asn Ala Ser Tyr His Ala Ser Asp Ala Ser
    50                  55                  60
Thr Thr Pro Leu Phe Leu Thr Ala Tyr Phe Gly Glu Pro Ser Leu Ala
65                  70                  75                  80
Lys Tyr Leu Ile Ser His Gly Ala Asp Val His Leu Val Asp Ser Met
                85                  90                  95
Gly Arg Asn Ala Leu His Gly Ile Thr Lys Tyr Phe Pro Glu Arg His
            100                 105                 110
Gly Tyr Leu Pro His His Trp His Tyr Trp Ile Arg His Gly Ser Trp
        115                 120                 125
Glu His His Leu Thr Gln Met Thr Glu Leu Val Lys Ile Leu Val Asp
    130                 135                 140
Ala Gly Ala Asp Leu Asn Ala Asn Asp Lys Gly Tyr Pro Pro Leu Thr
145                 150                 155                 160
Pro Val Ala Ala Ala Ala Asp Leu Gly Val Trp Asp Gly Gly Val Ile
                165                 170                 175
Cys Ala Leu Leu Asp Ala Gly Ala Asp Leu Gly Glu Ser Val Leu Ser
            180                 185                 190
Ala Gly Asn Thr Val Leu His Ser Trp Ala Ser Ile Val Gly Pro Arg
        195                 200                 205
Leu Ala Tyr Pro Asp Ser Tyr Leu Ser Thr Met Lys Lys Ile Val Ser
    210                 215                 220
Ala Thr Pro Asp Ile Asp Ile Pro Asn Lys Phe Glu Lys Asp Thr Pro
225                 230                 235                 240
Leu Val Phe Thr Arg Gly Trp Lys Asp Pro Arg Trp Cys Ile Lys
                245                 250                 255

<210> 39180
<211> 62
<212> PRT
<213> A.fumigatus

<400> 39180
Thr His Thr Leu Val Tyr Val His Ile Cys Cys Gln Gln Pro Tyr Ser
1               5                  10                  15
Asn Met Met Leu Pro Leu Leu Ala Val Ser Ala Phe Ala Ser Leu Gly
            20                  25                  30
Ala Ala Gln Thr Tyr Thr Ser Cys Asn Pro Thr Asn Ser Lys Ser Ala
        35                  40                  45
Arg Gly Ser Lys Pro His Trp Thr Asn Lys Ser Ser Asn Val
```

50 55 60

<210> 39181
<211> 327
<212> PRT
<213> A.fumigatus

<400> 39181

```
Pro Tyr Val Arg Ser Leu Val Gly Asp Val Phe Thr Gly Leu Ser Gly
1               5                  10                  15
Lys Leu Thr Ile Arg Leu Ser Ser Ile Gln Leu Thr Pro Thr Asn Thr
            20                  25                  30
His Ala Gly Ile Met Asp Pro Ile Tyr Asn Lys Gly Pro Leu Phe Trp
        35                  40                  45
Tyr Arg Leu Asp Glu Ser Ile Arg Thr Glu Leu Glu Gly Gln Tyr Ala
    50                  55                  60
Leu Met Gln Glu Gly Asn Ala Pro Pro Phe Pro Gly Asp Val Leu Phe
65                  70                  75                  80
Gly Leu Ala Gln Thr Ile Thr Gly Ala Lys Pro Ser Tyr Leu Asp Arg
                85                  90                  95
Leu Leu Thr Tyr Leu Thr Glu Ala Ala Arg Ala Gly Tyr Ser Pro Ala
            100                 105                 110
Arg Gly Val Tyr Ala Gln Ile Met Glu Ala His Gly Gln Lys Pro Glu
        115                 120                 125
Phe Ala Glu Asp Val Leu Gly Glu Trp Met Leu Gln Ala Val Ser Glu
    130                 135                 140
Gly Tyr Phe Phe Ala Ser Pro Ser Tyr Ser Lys Gly Arg Ile Glu Glu
145                 150                 155                 160
Ala Arg Glu Arg Phe Arg Ala Asn Gly Gly Phe Cys Ser Asp Pro Phe
                165                 170                 175
Leu Ala Lys Lys Asp Val Val Glu Ala Ala Gly Asp Arg Thr Lys Ala
            180                 185                 190
Leu Arg Arg Thr Met Glu Asn Gly Ser Val Val Asp Arg Lys Gly Asn
        195                 200                 205
Thr Ile Leu His Ala Ala Ala Ala Leu Gly Ala Ile Asp Ala Val Arg
    210                 215                 220
Gly Leu Leu Asp Asp Gly Gln Leu Pro Val Asn Val Glu Asn Glu Lys
225                 230                 235                 240
Gly Glu Thr Pro Leu Tyr Lys Ala Cys Gln Ala Gly His Ala Lys Ile
                245                 250                 255
Val Glu Leu Leu Leu Asp Arg Gly Ala Asp Ala Ser Thr Met Thr Arg
            260                 265                 270
Gln Asp Lys Leu Ser Pro Met His Trp Leu Phe Met Ile Pro Asp Ala
        275                 280                 285
Ser Ile Pro Glu Ile Ala Arg Leu Met Val Glu Gly Gly Ala Asp Ile
    290                 295                 300
Asn Ala Thr Ile Glu Pro Val Val Lys Glu Asn Ser Ala Gly Phe Pro
305                 310                 315                 320
Glu Lys Ile Gln Ile Leu His
                325
```

<210> 39182
<211> 76
<212> PRT
<213> A.fumigatus

<400> 39182
Ala Arg Arg Gly Pro Thr Ile Asp Ala His Glu Cys Arg Thr Val Phe
1 5 10 15
Pro Ala Asp Arg Thr Asp Ser Pro Lys Ser Ala Pro Ala Ser Asn Ser
20 25 30
Ala Gln Ile Thr Pro Pro Ser Gln Thr Pro Arg Ser Ala Ala Ala Ala
35 40 45
Thr Gly Val Ser Gly Gly Tyr Pro Leu Ser Leu Ala Leu Arg Ser Ala
50 55 60
Pro Ala Ser Thr Ser Ile Leu Thr Asn Ser Val Ile
65 70 75

<210> 39183
<211> 616
<212> PRT
<213> A.fumigatus

<400> 39183
Ser Lys Leu Thr Thr Met Pro Val Cys Gly Lys Ser Cys Ile Asn Thr
1 5 10 15
Gly Ala Ser Val Gly Val Ile Pro Arg Gly Ala Val Ser Ala Asp Gly
20 25 30
Gln Pro His Ala Ser Pro Thr Asn Pro Ser Arg Pro Arg Leu Thr Phe
35 40 45
Ser Ser Cys Ser Gly Val Val Asp Glu Gln Ala Lys Met Asp Ile Tyr
50 55 60
Gly Thr Ala Val Thr Ala Ile Thr Gln Val Tyr Gln Val Thr Ile Phe
65 70 75 80
Ile Lys Gly Val Val Ser Asp Ile Lys Ala Phe Asp Asp Asp Arg Ala
85 90 95
Glu Ile Gln Leu Lys Leu Asn Leu Gln Leu Thr Thr Leu Leu Phe Phe
100 105 110
Lys Arg Ile Cys Phe His Pro Glu His Gly Leu Leu Leu Pro Gly Lys
115 120 125
Leu Asp Pro Phe Ile Ala Asp Thr Val Glu Gly Leu Leu Val Gln Met
130 135 140
Arg Lys Thr Leu Ala Glu Tyr Glu Leu Val Ala Ala Lys Tyr Gly Leu
145 150 155 160
Ile Asp Asp Glu Leu Ala Ile Glu Pro Asp Lys Pro Ala Thr Thr Gln
165 170 175
Glu Ser Leu Leu Glu Arg Ala Lys Ser Lys Ala Arg Ser Leu Lys Leu
180 185 190
Lys Gly Tyr Asp Trp Ser Leu Phe Asp Lys Lys Arg Leu Asn Arg Ile
195 200 205
Leu Asp Ala Tyr Thr Lys Trp Ser Glu Asp Leu Arg Asn Ile Met Leu
210 215 220
His Met Ser Gln Asp Thr Leu Ala Lys Met Ala Glu Ser Asp His Gln
225 230 235 240
Gly Leu Arg Ser Ser Gly Leu Glu Pro Val Met Lys Arg Arg Thr Leu
245 250 255
Ala Ala Ala Lys Ala Pro Ala Asp Tyr Gln Ser Leu Thr Gly Thr Leu
260 265 270
Ala Glu Glu Gly Lys Thr Met Gly Gly Phe Arg Leu Gly Lys Trp Thr
275 280 285
Ala Ser Glu Ser Glu Ala Met Pro Val Ile Val Glu Tyr His Glu Tyr
290 295 300

```
Glu Ser Arg Leu Lys Arg Asp Asp Leu Glu Pro Asp Glu Ile Glu Glu
305                 310                 315                 320
Leu Lys Glu Pro Ile Arg Asn Leu Ala Trp Leu Leu Gln Asn Thr Thr
                325                 330                 335
Phe Ser Gly Thr Ser Ala Asn Ser Leu Asp Gln Pro Lys Ile Tyr Ala
            340                 345                 350
Leu Glu Cys Leu Gly Phe Leu Asp Gln Pro Thr Asp Glu Arg Thr Val
        355                 360                 365
Phe Leu Tyr Lys Leu Pro Pro Ser Glu Pro Thr Thr Pro Asp Thr Thr
    370                 375                 380
Leu Thr Thr Leu His Ala Phe Ile Asn Ala Val Asp Ser Gln Thr Lys
385                 390                 395                 400
Arg Pro Leu Lys Lys Pro Ser Leu Asn Asp Arg Phe Ser Met Ala His
                405                 410                 415
Ser Leu Ala Leu Thr Val Ala Asn Leu His Ala Ser Ala Trp Leu His
            420                 425                 430
Lys Asn Ile Trp Ser Arg Gly Ile Leu Leu Phe Leu Glu Thr Pro Gly
        435                 440                 445
Gly Thr Ser Ala Ala Gly Leu Tyr Ala His Arg Leu Ala Pro Ser Pro
    450                 455                 460
Lys Asp Asn Thr Arg Ile Val Ser Tyr Leu Ser Asp Trp Gly Tyr Ala
465                 470                 475                 480
Arg Ser Val Gln Gln Gly Thr Glu Met Arg Ser Asp Phe Glu Val Glu
                485                 490                 495
Pro Asn Leu Tyr Arg His Pro Asp Arg Gln Gly Arg Pro Ser His Gln
            500                 505                 510
Phe Ser Arg Glu His Asp Ile Tyr Ala Leu Gly Val Val Leu Leu Glu
        515                 520                 525
Ile Gly Leu Trp Val Thr Met Ser Arg Leu Met Glu Ala Arg Ile Arg
    530                 535                 540
Glu Ala Glu Thr Ser Gly Arg Leu Pro Arg Ser Lys Lys Val Leu Glu
545                 550                 555                 560
Asp Leu Ile Ala Leu Ala Gln Gln Gly Leu Pro Lys Glu Met Gly Val
                565                 570                 575
Gly Tyr Thr Lys Ala Val Leu Ala Cys Leu Lys Gly Glu Phe Arg Gly
            580                 585                 590
Arg Glu Gly Pro Ala Leu Ala Val Asp Phe Gln Glu Lys Val Val Asp
        595                 600                 605
Val Leu Ala Gly Gly Ile Asn Met
    610                 615
```

<210> 39184
<211> 112
<212> PRT
<213> A.fumigatus

<400> 39184

```
Pro Ser Pro Thr Ser Thr Pro Pro Pro Gly Cys Thr Lys Thr Ser Gly
1                   5                   10                  15
Ala Glu Ala Ser Ser Ser Ser Ser Arg His Pro Gly Gly Pro Ala Gln
            20                  25                  30
Pro Ala Ser Thr Arg Ile Ala Leu Pro Arg Pro Gln Arg Thr Thr Pro
        35                  40                  45
Glu Ser Ser Pro Thr Ser Ala Thr Gly Ala Thr Arg Ala Pro Cys Ser
    50                  55                  60
Lys Ala Pro Arg Cys Ala Pro Thr Ser Arg Ser Ser Gln Thr Ser Thr
```

65 70 75 80
Gly Ile Arg Thr Gly Arg Gly Gly Arg Arg Thr Ser Leu Ala Ala Ser
85 90 95
Met Thr Ser Met Arg Leu Gly Trp Ser Cys Trp Arg Ser Gly Cys Gly
100 105 110

<210> 39185
<211> 236
<212> PRT
<213> A.fumigatus

<400> 39185
Ser Ser Ser Arg Gly Arg Arg Arg Arg Arg Arg Gly Gln Ala Asn Asp
1 5 10 15
Ser Thr Ala Arg Gly Leu His Arg Gly Arg Val Ser Thr Arg Arg Ser
20 25 30
Asn Gln Arg Ser Arg Arg Gly Glu Gly Gly Ser Arg Gly Gly Arg Ser
35 40 45
Glu His Thr Asn Arg Val Arg Ala Met Asp Ala Thr Ala Gly Arg Arg
50 55 60
Ile Arg Gly His Asn Thr Gly Ile Arg Ala Gly Leu Val Arg Val Val
65 70 75 80
Ile Arg Arg Arg Arg Val Val Val Asp Asp Val Asp Arg Phe His Ile
85 90 95
His Arg Glu Arg Asp Leu Val Val Ile Arg Leu Ser Pro Gly Pro Leu
100 105 110
Asp Arg Ser Leu Ala Val Gly Arg Val Thr Ser Gly Pro Asp Ala Gln
115 120 125
Leu His Asp His Trp Arg Leu Arg Val Val Leu Pro Ile Asp Arg Ile
130 135 140
Gly Ile Leu Glu Cys Ala His Gly Gly Pro Val Asn Val Pro Gly Asp
145 150 155 160
Gly Arg Ser Gly Pro Asp Asp Phe Val Arg Val Glu Phe Val Leu Arg
165 170 175
Ala Ala Asp Gly Leu Pro Asp Cys Ala Val Val Gly Gly Arg Val Ala
180 185 190
Leu Ala Lys Val Val Gly Leu Asp Leu Gly Ser Val Gly Ser Ser Ala
195 200 205
Phe Leu Ser Ser Ser Val Phe Phe Leu Trp Tyr His Arg Glu Pro Asp
210 215 220
Ser Pro Ser Arg Phe Arg Pro Asp His Pro Ile Pro
225 230 235

<210> 39186
<211> 82
<212> PRT
<213> A.fumigatus

<400> 39186
Arg Ser Cys Glu Ser Arg Ser Gly Val Phe Gly Thr Ala Ser Val Ala
1 5 10 15
Cys His Ser Phe Met Ser Phe Tyr Val Ile Ala Ala Val Asp Trp His
20 25 30
Leu Ser His Trp Glu Asn Ile Ile Ala Tyr Cys Gly Gly Phe Val Tyr
35 40 45
Ile Gly His Ile Thr Tyr Thr Gly Gln Val Thr Gly Leu Ala Tyr His

```
    50                  55                  60
Leu Gln Ser Phe His Tyr Ser Ile Tyr Asp Phe His Thr Leu Gln Thr
65                  70                  75                  80
Cys Tyr
```

<210> 39187
<211> 461
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (57),(70)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39187

```
Asn Ser Trp Asn Gly Lys Lys Phe Phe Gly Ala Thr Asn Leu Phe Lys
1               5                   10                  15
Pro Tyr Arg Gln Gly Thr Phe Thr Gln Asp Gln Cys Gln Gly Cys Ser
            20                  25                  30
Gly Arg Lys Pro Val Pro Phe Ala Ala Ala Trp Gly Ser Pro Glu Gly
        35                  40                  45
Thr Asn Pro His Arg Gly Pro Gln Xaa Trp Met Thr Cys Ala Ile Gln
    50                  55                  60
Leu Glu Glu Glu Pro Xaa Asn Arg Ile Phe Ser Arg Pro Leu Ser Phe
65                  70                  75                  80
Arg Trp Pro Phe Lys Glu Arg Gln Leu Asp Asp Glu Ser Val Tyr Asp
                85                  90                  95
Asp Ala Ser Thr Thr Ser Pro Asp Tyr Ala Ser Thr His Glu Ser Val
            100                 105                 110
Tyr Ser Lys Gln Ser Val Lys Ser Val Ser Lys Pro Arg Met Gly Val
        115                 120                 125
Met Lys Thr Val Gly Thr Glu Pro Lys Lys Asp Leu Val Ile Gly Asp
    130                 135                 140
Ala Arg Tyr Thr Leu Asp Glu Pro Ser Gln Ile Asp Pro Asp Ile Pro
145                 150                 155                 160
Thr Val Asp Phe Gly Pro Thr Leu Thr Tyr Leu Pro Thr Thr Gly Arg
                165                 170                 175
Pro Ser Thr Ser Asp Thr Leu Lys Lys Phe Thr His His Lys Thr Gly
            180                 185                 190
Ser Asp Ala Thr Glu Lys Gln Arg Tyr Ala Val Pro Thr His Pro Ile
        195                 200                 205
Asn His Thr His Ala Arg Ser Pro Ser Gln Asp Glu His Arg Arg Ser
    210                 215                 220
Ile Leu Trp Gln Pro Gly Met Ala Arg Pro Thr Thr Pro Gly Gly Gly
225                 230                 235                 240
Leu Ser Pro Glu Gln Phe Val Gln Gln Arg Ala Ala Pro Ser Pro Pro
                245                 250                 255
Ile His Leu His His His Arg Ala Pro Ser Ala Thr Pro Pro Pro Arg
            260                 265                 270
Arg Pro Leu Ser Gly Asp Trp Met Ala His Ala Arg Ser Lys Ser Gln
        275                 280                 285
Met Thr Ile Ser Arg Asp Pro Gln Pro Arg Pro His Ser Arg Gly Ala
    290                 295                 300
Ser Ser Met Met Asn Phe Asn Asp Ile Ser Ser His Leu Ser Ala Arg
```

```
305                 310                 315                 320
Glu Gln Glu His Val Ala Arg Met Thr Gly Ser Ser Phe Phe Asp Ile
                325                 330                 335
Ser Ser Asp Lys Ser Lys Gln Ala Pro Pro Val Asp Pro Met Gly Leu
            340                 345                 350
Val Gly Ala Ile Asp Ala Arg Glu Arg Glu Lys Gln Ser Ile Lys Glu
        355                 360                 365
Gly Met Ser Asn Gln Leu Val Gln His Ala Ile Ala Gln Arg Gln Gln
    370                 375                 380
His Trp Gln His His Gln Gln Arg Gln Leu Ala Thr Thr Pro Pro Pro
385                 390                 395                 400
Gln Asn Tyr Gly Leu Gln Ser Gly Val His Gly Asn Val Tyr Asn Leu
                405                 410                 415
Pro Ala Ala Ser His Thr Trp Asp Ala Leu Asn Gln Thr Tyr Arg Ala
            420                 425                 430
Asp Glu Pro Arg Arg Gln Ser Trp Tyr Gly Pro Phe Ala Ala Gln Gly
        435                 440                 445
Thr Gly Lys His Arg Gln Cys Ile Pro Lys Ala Ser Leu
    450                 455                 460
```

<210> 39188
<211> 103
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (3)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39188

```
Ala Gly Xaa Phe Phe Tyr Gly Ala Ala Pro Ser Ser Pro Val Val Lys
1               5                   10                  15
Thr Thr Arg Leu Asp Ala Phe Ala Lys Thr Val Glu Asp Ala Arg Ile
            20                  25                  30
Arg Thr Thr Ser Gly Gly Ile Ile Thr Leu Ala Ser Leu Val Val Ile
        35                  40                  45
Leu Tyr Leu Val Trp Gly Glu Trp Leu Asp Tyr Arg Arg Val Val Val
    50                  55                  60
Leu Pro Glu Leu Val Val Asp Lys Ser Arg Gly Met Asp Leu Arg Arg
65                  70                  75                  80
Thr Glu Asn Met Gly Ile Arg Ala Asp Ala Asn Asp Gly Ile Glu Gln
                85                  90                  95
Ala Ser Glu Trp Lys Phe Thr
            100
```

<210> 39189
<211> 320
<212> PRT
<213> A.fumigatus

<400> 39189

```
Gln Leu Cys Ala Ser Ala Ser His Ser Lys Glu Glu Ile Ala Lys His
1               5                   10                  15
Leu Asp Pro Asn Tyr Cys Gly Asp Cys Gly Gly Ala Asp Pro Leu Pro
            20                  25                  30
```

```
Gly Ser Ile Lys Glu Gly Cys Cys Asn Thr Cys Asp Glu Val Arg Glu
        35                  40                  45
Ala Tyr Ala Ala Lys Asn Trp Ala Phe Gly Lys Gly Thr Asn Ile Glu
    50                  55                  60
Gln Cys Glu Arg Glu Gly Tyr Ala Ala Arg Ile Asp Ala Gln Arg Arg
65                  70                  75                  80
Glu Gly Cys Arg Leu Glu Gly Ile Leu Arg Val Asn Lys Val Val Gly
                85                  90                  95
Asn Phe His Ile Ala Pro Gly Arg Ser Phe Thr Ser Gly Gln Val His
            100                 105                 110
Ala His Asp Leu Gln Asn Tyr Leu Asp Ser Glu Leu Pro Asp Asn Glu
        115                 120                 125
Lys His Thr Met Thr His His Ile His Gln Leu Arg Phe Gly Pro Gln
    130                 135                 140
Leu Pro Asp Glu Val Ser Asp Arg Trp Gln Trp Thr Asp His His His
145                 150                 155                 160
Thr Asn Pro Leu Asp Ser Thr Ser Gln Glu Thr Asn Asp Pro Ala Tyr
                165                 170                 175
Asn Phe Val Tyr Phe Val Lys Val Val Ser Thr Ser Tyr Leu Pro Leu
            180                 185                 190
Gly Trp Asp Pro Leu Phe Ser Ser Ala Ala His Asn Ala His Asp Gln
        195                 200                 205
Thr Pro Leu Gly Ser His Gly Ile Ala Tyr Gly Ser Gly Gly Ser Ile
    210                 215                 220
Glu Thr His Gln Tyr Ser Val Thr Ser His Lys Arg Ser Leu Arg Gly
225                 230                 235                 240
Gly Asp Ala Ser Asp Glu Gly His Lys Glu Arg Leu His Ala Ala Asn
                245                 250                 255
Gly Ile Pro Gly Val Phe Phe Asn Tyr Asp Ile Ser Pro Met Lys Val
            260                 265                 270
Ile Asn Arg Glu Ala Arg Pro Lys Ser Phe Ser Gly Phe Leu Thr Gly
        275                 280                 285
Val Cys Ala Ile Ile Gly Gly Thr Leu Thr Val Ala Ala Ala Ile Asp
    290                 295                 300
Arg Gly Leu Tyr Glu Gly Ala Leu Arg Val Lys Lys Leu His Ser Ser
305                 310                 315                 320
```

<210> 39190
<211> 166
<212> PRT
<213> A.fumigatus

<400> 39190

```
Gln Gly Ala Pro Glu Phe Ser Cys Arg Gly Arg Pro Cys Ala Gly Cys
1               5                   10                  15
Ser Ser Phe Gly Pro Val Ser Ser Gln Phe Leu Leu Pro Leu Ala Ser
            20                  25                  30
Thr Ala Asn Asn Cys Val Arg Pro Leu Ala Thr Leu Lys Arg Lys Ser
        35                  40                  45
Pro Asn Thr Ser Thr Gln Thr Thr Ala Ala Thr Ala Ala Ala Gln Thr
    50                  55                  60
Leu Ser Pro Ala Leu Ser Lys Lys Ala Ala Ala Thr Leu Ala Thr Lys
65                  70                  75                  80
Cys Ala Lys Pro Thr Gln Leu Arg Thr Gly Pro Leu Ala Arg Ala Pro
                85                  90                  95
Thr Ser Ser Ser Ala Asn Gly Arg Ala Thr Arg Arg Ala Ser Thr Pro
```

```
            100                 105                 110
Asn Ala Ala Lys Ala Ala Ala Leu Arg Ala Ser Cys Ala Ser Thr Arg
        115                 120                 125
Ser Ser Ala Thr Ser Thr Ser Pro Pro Ala Ala Ala Ser Pro Ala Val
    130                 135                 140
Arg Ser Thr Arg Thr Thr Cys Lys Thr Ile Ser Thr Pro Ser Ser Arg
145                 150                 155                 160
Thr Thr Lys Asn Thr Leu
                165
```

<210> 39191
<211> 62
<212> PRT
<213> A.fumigatus

<400> 39191

```
Thr Gly Glu Arg Met Glu Ile His Met Asn Ile Thr Phe Pro Arg Leu
1               5                   10                  15
Pro Cys Glu Leu Leu Thr Leu Asp Val Met Asp Val Ser Gly Glu Gln
            20                  25                  30
Gln Val Gly Val Ala His Gly Val Asn Lys Val Arg Leu Ser Ser Pro
        35                  40                  45
Ala Glu Gly Gly Arg Val Leu Asp Val Gln Ala Leu Asp Leu
    50                  55                  60
```

<210> 39192
<211> 247
<212> PRT
<213> A.fumigatus

<400> 39192

```
Gly Thr Ser Pro Pro Leu Gly Leu Ser Pro Leu His Phe His Pro Glu
1               5                   10                  15
Leu Leu Gly Arg Trp Pro Arg Gly Gly Leu Ser His Ser Ala Ala Ile
            20                  25                  30
Ile Thr Thr Phe Ile Gly Val Ser Ile Ile Leu Asp Glu Phe Leu Val
        35                  40                  45
Gly Ser Arg Leu Lys Gly Arg Lys Ala Ser Leu Gly Cys Lys Lys Lys
    50                  55                  60
Leu Glu Ser Gln Gln Asp Gly Pro Leu Gly Pro Pro Gly Glu Ile His
65                  70                  75                  80
His Val Thr Leu Ser Cys Pro Ser Ser Arg Leu Ala Met Ala Ala Ala
                85                  90                  95
Phe Asp Asp Glu Asp Leu Ser Val Ser Leu Pro Ser Tyr Asn Ser Asp
            100                 105                 110
Arg His Arg Glu Cys Pro Ile Gly Ala Gly Pro Pro Pro Asn Ala Ser
        115                 120                 125
Asn Tyr Pro Ala Arg Pro Met Pro Pro Pro Thr Arg Pro Thr Gly Met
    130                 135                 140
Ala Ala Asp Pro Ser Lys Gln Ser Pro Ala Thr Met Arg Asp Met Gln
145                 150                 155                 160
Arg Leu Asp Gln Tyr Gln Thr Val Lys Ile Leu Gly Glu Gly Ser Phe
                165                 170                 175
Gly Lys Val Lys Leu Ala Ile His Gln Pro Ser Gly Arg Gln Val Ala
            180                 185                 190
Leu Lys Ile Ile Ser Arg Arg Lys Leu Leu Ser Arg Asp Met Val Gly
```

```
        195                 200                 205
Arg Val Glu Arg Glu Ile Gln Tyr Leu Gln Leu Leu Arg His Pro His
    210                 215                 220
Ile Ile Lys Leu Tyr Val Gln Val Arg Val Leu Ser Val Phe Thr Asp
225                 230                 235                 240
Arg Asn Arg Leu Met Leu Ser
                245
```

<210> 39193
<211> 283
<212> PRT
<213> A.fumigatus

<400> 39193

```
Leu Arg Arg Tyr Thr Val Ile Ala Thr Lys Thr Asp Ile Ile Met Val
1               5                   10                  15
Leu Glu Tyr Ala Glu Arg Glu Leu Phe Asp Tyr Leu Val Lys Arg Gly
            20                  25                  30
Arg Cys Asn Asp Ala Glu Ala Arg Lys Phe Phe Gln Gln Ile Ile Cys
        35                  40                  45
Ala Val Glu Tyr Cys His Arg His Lys Ile Val His Arg Asp Leu Lys
    50                  55                  60
Pro Glu Asn Leu Leu Ile Asp Lys Asp Lys Asn Val Lys Ile Ala Asp
65                  70                  75                  80
Phe Gly Leu Ser Asn Ile Met Thr Asp Gly Asn Phe Leu Lys Thr Ser
                85                  90                  95
Cys Gly Ser Pro Asn Tyr Ala Ala Pro Glu Val Ile Ser Gly Lys Leu
            100                 105                 110
Tyr Ala Gly Pro Glu Val Asp Val Trp Ser Cys Gly Val Ile Leu Tyr
        115                 120                 125
Val Leu Leu Val Gly Arg Leu Pro Phe Asp Asp Asp Tyr Ile Pro Ala
    130                 135                 140
Leu Phe Lys Lys Ile Ala Ala Gly Asn Phe His Met Pro Pro Tyr Ile
145                 150                 155                 160
Ser Ser Gly Ala Ala Arg Leu Ile Arg Ser Met Leu Gln Val His Pro
                165                 170                 175
Val His Arg Ile Thr Ile Pro Glu Ile Arg Gln Asp Pro Trp Phe Leu
            180                 185                 190
Gln Asp Leu Pro Lys Tyr Leu Gln Pro Pro Pro Glu Glu Phe Ile Ala
        195                 200                 205
Thr Gly Val Asp Pro Asn Lys Ala Ile Asp Leu Lys Lys Ile Ala Pro
    210                 215                 220
Gly Lys Pro Leu Ser Val Gln His Lys Ile His Gln Ile Ala Ile Ser
225                 230                 235                 240
Lys Leu Glu Arg Ser Met Gly Tyr Ala Arg Glu Asp Ile Glu Asp Ala
                245                 250                 255
Leu Lys Ser Pro Glu Pro Ser Ala Ile Lys Asp Ala Phe Phe Ile Ile
            260                 265                 270
Val Glu Asn Glu Met Met Gln Thr Asn Cys Glu
        275                 280
```

<210> 39194
<211> 215
<212> PRT
<213> A.fumigatus

<400> 39194
Gln Arg Ala Ala Pro Thr Glu Asp Asn Leu Met Gly Gly Pro Val Ala
1 5 10 15
Pro Ser Pro Pro Pro Asn Arg Thr Pro Leu Thr Thr Pro Ala Val Gly
20 25 30
Arg Pro Ala Ala Pro Arg Pro Gln Gly Phe Pro His Tyr Asp Ser His
35 40 45
Arg Ala Pro Ser Gln Ala Pro Gln Gln Ala Asp Ser Asp Asp Phe Glu
50 55 60
Ser Ser Arg Ile Ser His Val Arg Ile Leu Pro Thr Ser Leu Pro Tyr
65 70 75 80
Val His Asp Gln Leu Met Glu Gln Arg Glu Arg Glu Arg Glu Gln Arg
85 90 95
Ala Arg Asp Ala Gly Arg Leu Arg Glu Glu Arg Ala Gln Ala Ser Leu
100 105 110
Asp Asp Asp Leu Ser Gly Ala Arg Ser Pro Glu Glu Gln Glu Ala Ser
115 120 125
Ala Arg Ala Leu Lys Pro His Ser Arg Ser Ile Ile Asp Leu Asn Lys
130 135 140
Leu Arg Leu Glu Pro Pro Glu Gly Arg Ser Ala Pro Gln Gln Pro Lys
145 150 155 160
Arg Thr Arg Lys Trp Gln Phe Gly Ile Arg Ser Arg Asn Gln Pro Tyr
165 170 175
Glu Ala Met Leu Tyr Leu Tyr Lys Ala Ile Ala Ala Gln Gly Gly Val
180 185 190
Trp Glu Ile Gln Pro Ser Glu Ala Gly Ser Phe Ser Ser Thr Leu Leu
195 200 205
Thr His Val Arg Val Val Asn
210 215

<210> 39195
<211> 362
<212> PRT
<213> A.fumigatus

<400> 39195
Pro Val Ser Pro Cys Thr Arg Tyr Pro Ser Gly His Val Gly Ile Ser
1 5 10 15
Pro Arg Thr Tyr Gln Gly Ser Leu Pro Glu Asp His Val Asp His Pro
20 25 30
Arg Arg Ala Arg Lys Met Ala Pro Asn Leu Ala Pro Ser Thr Leu Glu
35 40 45
Phe Ile Arg Asp Met Ile Leu Ser Asn Glu Leu Thr His Ser Gln Ile
50 55 60
Ala Asn Ala Ala Gly Cys His Pro Ser Thr Ile Thr Arg His Val Thr
65 70 75 80
Asn Met Lys Leu Phe Gly Asn Val Lys Ala Pro Pro Asn Lys Gly Gly
85 90 95
Arg Pro Arg Lys Leu Thr Pro Val Met Ile Lys Ala Leu Cys Asp His
100 105 110
Leu Leu Glu Lys Pro His Leu Tyr Leu Asp Glu Met Ala Ile Phe Leu
115 120 125
Trp Asp Glu Phe Gln Val His Val Thr Thr Cys Ser Ile Gly Arg Ala
130 135 140
Leu Arg Arg Glu Gly Trp Ser Lys Lys Ala Ala Lys Tyr Lys Ala Arg
145 150 155 160

```
Glu Arg Asn Ala Asp Leu Arg Asp Thr Tyr Phe His Phe Ile Ser Asp
                165                 170                 175
Phe Cys Ser Tyr His Leu Val Tyr Val Asp Glu Ser Gly Cys Asp Lys
            180                 185                 190
Arg Ile Gly Phe Arg Arg Thr Gly Trp Ser Pro Leu Gly Ile Ala Leu
        195                 200                 205
Thr Gln Val Ala Lys Phe His Arg Asp Gln Arg Tyr Gln Ile Leu Pro
    210                 215                 220
Ala Tyr Ala Gln Asp Gly Ile Val Leu Ser Asp Val Phe Gln Gly Ser
225                 230                 235                 240
Thr Asp Ala Ser Val Phe Glu Asp Phe Ile Glu Glu Leu Leu His His
                245                 250                 255
Cys Gly Arg Trp Pro Glu Pro Lys Ser Val Leu Val Met Asp Asn Ala
            260                 265                 270
Ser Phe His His Ser Glu Arg Leu Glu Gln Met Cys Ala Gly Ala Gly
        275                 280                 285
Val Gln Leu Val Tyr Leu Pro Pro Tyr Ser Pro Asp Leu Asn Leu Ile
    290                 295                 300
Glu Glu Leu Phe Ser Glu Leu Lys Ala Phe Val Arg Arg His Trp Gln
305                 310                 315                 320
Val Tyr Glu Asp Asn Pro Asp Gln Gly Phe Asp Ser Phe Leu Glu Trp
                325                 330                 335
Cys Ile Glu Thr Val Gly Ala Arg Lys Gln Ser Ala Lys Gly His Phe
            340                 345                 350
Gln Asn Ala Gly Leu Thr Ile Glu Glu Ile
        355                 360
```

<210> 39196
<211> 67
<212> PRT
<213> A.fumigatus

```
<400> 39196
Ser Leu Thr Arg Thr Phe Leu Pro Leu Leu Glu Pro Glu Phe Ser Val
1               5                   10                  15
Ala Asp Glu Ser Pro Cys Asn Thr Asn Phe Tyr Thr Leu Leu Asn Glu
            20                  25                  30
Glu Leu Arg Val Phe Arg Ala Asp Leu Ser Lys Val Lys Thr Val Leu
        35                  40                  45
Gln Arg Tyr Ile Thr Arg Phe Phe Asn Ile Phe Leu Ile Ala Val Thr
    50                  55                  60
Val His Pro
65
```

<210> 39197
<211> 369
<212> PRT
<213> A.fumigatus

```
<400> 39197
Leu Leu Val Leu Ile Tyr Leu Phe Val Val Val Gly Leu Val Thr Pro
1               5                   10                  15
Ala Gln Ala Tyr Ile Ser Tyr Thr Met Ala Gly Lys Thr Cys Leu Ser
            20                  25                  30
His Asp Asp Tyr Thr Val Gly Trp Ile Cys Ala Leu Pro Leu Glu Met
        35                  40                  45
```

```
Ala Ala Ala Thr Val Met Leu Asp Glu Lys His Glu Lys Leu Arg Arg
    50                  55                  60
Gln Pro Asn Asp His Asn Glu Tyr Val Leu Gly His Ile Gly Glu His
65                  70                  75                  80
Asn Ile Val Val Ala Cys Leu Pro Ser Gly Glu Tyr Gly Ile Thr Ser
                85                  90                  95
Ala Thr Thr Val Ala Met Gln Leu Leu Ser Ser Phe His Ser Ile His
            100                 105                 110
Phe Gly Leu Met Val Gly Ile Gly Gly Gly Val Pro Lys Glu Asp Lys
        115                 120                 125
Asp Ile Arg Leu Gly Asp Ile Val Val Ser Glu Pro Thr Tyr Thr His
    130                 135                 140
Gly Gly Val Val Gln Tyr Asn Tyr Gly Lys Ala Leu Ser Gly Gly Glu
145                 150                 155                 160
Phe Arg Arg Thr Gly Met Leu Asn Arg Pro Pro Gln Ser Leu Leu Thr
                165                 170                 175
Ala Leu Ser Lys Leu Gln Ala Thr His Tyr Thr Lys Pro Ser Gln Val
            180                 185                 190
Ile Asn Phe Leu Ala Glu Ile Glu Gln Lys Leu Pro Thr Glu Gln Ala
        195                 200                 205
Ala Asn Phe Ala Arg Pro Thr Gln Thr Asp Gln Leu Phe Leu Asp Asn
    210                 215                 220
Tyr Glu His Thr Asn Thr His Thr Gln Thr Cys Asn Gly Cys Asp Thr
225                 230                 235                 240
Thr Gln Thr Ile Arg Arg Gln Cys Arg Ser His Asn Asn Pro Phe Ile
                245                 250                 255
His Tyr Gly Leu Ile Ala Ser Ala Asn Gln Val Val Lys Asp Ser Gln
            260                 265                 270
Leu Arg Asp Lys Leu Gly Arg Asp Leu Gly Val Leu Cys Val Glu Met
        275                 280                 285
Glu Ala Ala Gly Leu Met Asn Asn Tyr Pro Cys Leu Val Ile Arg Gly
    290                 295                 300
Ile Cys Asp Tyr Ala Asp Ser His Lys Asn Lys Glu Trp Gln Gly Tyr
305                 310                 315                 320
Ala Ala Ala Val Ala Ala Ala Tyr Ala Lys Glu Leu Leu Leu Thr Val
                325                 330                 335
Ser Ala Asp Gln Thr Arg Asn Thr Arg Ala Ile Thr Asn Val Pro Pro
            340                 345                 350
Pro Pro Thr Val Ser Gly His Ser Leu Ile Ile Ile Tyr Val Asp Leu
        355                 360                 365
Ile
```

<210> 39198
<211> 114
<212> PRT
<213> A.fumigatus

```
<400> 39198
Asp Val Met Phe Pro Gly Gly Gln Gln Ile Tyr Val Asp Pro Ser Gly
1               5                   10                  15
Ala Val Lys Phe Thr Thr Ala His Ser Ala Ser Met Pro Pro Gly Ser
            20                  25                  30
Thr Val Glu Gly Phe Ser Tyr Thr Ser Gly Asp Pro Leu Gly His Trp
        35                  40                  45
Asn Phe Ser Gly Gln Gly Ala Thr Gly Phe Met Ala Cys Pro Thr Gln
```

```
    50                  55                  60
Gly Asp Ala Pro Ala Pro Tyr Gln Val Phe Ala Ala Ile Ser Ser Ala
65                  70                  75                  80
Thr Val Pro Thr Gly Asn Val Ala Asp Cys Leu Gly Phe Asp Ala Ala
                85                  90                  95
Ala Ile Ala Trp Thr Pro Ser Gln Gly Gln Thr Ala Ala Ala Trp Gln
            100                 105                 110
Tyr Thr
```

<210> 39199
<211> 103
<212> PRT
<213> A.fumigatus

<400> 39199

```
Leu Ile Lys Ser Gly Leu Tyr Lys Pro Pro Tyr Ser Thr Asn Ile Leu
1               5                   10                  15
Ser Asn Leu Pro Leu Gly Ala Ala Ala Ser Gly Asn Cys Leu Pro Gly
            20                  25                  30
Cys Gly Asn Ala Gly Pro His Arg Leu Ile Ser Arg Arg Tyr Ile Gly
        35                  40                  45
Leu Pro Ser Arg Pro Arg Asn Arg His Val Leu Leu Ser Pro Ser Ile
    50                  55                  60
Leu Arg Pro Ser Pro Pro Thr Leu Ala Ala Thr Ser Leu Val Asp Ser
65                  70                  75                  80
His Gly Val Gln Pro Thr Ile Val Ser Ser Ala Ser Pro Val Tyr Arg
                85                  90                  95
Leu Tyr Arg Leu Asn Glu Gly
            100
```

<210> 39200
<211> 424
<212> PRT
<213> A.fumigatus

<400> 39200

```
Thr Asp Thr Arg Arg Arg Lys Tyr Tyr Gln Arg Thr Asn Glu Leu Val
1               5                   10                  15
Ser Gln Tyr Leu Tyr Ile Asp Gln Leu Leu Asp Ser Ser Leu Pro His
            20                  25                  30
Gln Leu Ile Asp Glu Tyr Ser His Asp His Asp Ile Val Ala His Leu
        35                  40                  45
Trp Thr Arg Gly Arg Glu Gln Asn Gly Glu Gly Pro Pro Ala Asp Thr
    50                  55                  60
Ser Ser Arg Lys Ile Lys Arg Thr Pro Arg Asn Leu Tyr Arg Ile Pro
65                  70                  75                  80
Asn Glu Arg Ser Pro Leu Leu Gln Pro Thr Ile Glu Glu Asp Thr Pro
                85                  90                  95
Phe Pro Glu Ile Pro Ser Pro His Ala Ala Glu His Val His Ser Gly
            100                 105                 110
Asp Arg Ile Val Thr Val Ala Ile Tyr Ile Asn Leu Leu Ala Asn Val
        115                 120                 125
Phe Leu Leu Gly Ala Lys Ile Ala Val Met Ser Leu Thr Ser Ser Met
    130                 135                 140
Ser Val Leu Ala Ser Leu Val Asp Gly Ala Leu Asp Phe Leu Ser Thr
```

```
145                 150                 155                 160
Val Ile Val Trp Thr Thr Thr Lys Leu Ala Gln Arg Gln Asp Arg Tyr
                165                 170                 175
Arg Tyr Pro Ile Ser Arg Arg Arg Leu Glu Pro Leu Ser Ile Leu Val
            180                 185                 190
Phe Ala Val Val Met Ala Thr Ser Phe Val Gln Val Ala Ile Thr Ser
        195                 200                 205
Leu Gly Arg Leu Leu Gly Pro Asp His Lys Leu Val Gln Leu Ser Leu
    210                 215                 220
Pro Ala Ile Phe Met Met Ala Ser Thr Val Val Val Lys Leu Leu Cys
225                 230                 235                 240
Trp Phe Trp Cys Arg Leu Ile Lys Asn Thr Gly Val Gln Ala Leu Ala
                245                 250                 255
Gln Asp Ala Met Thr Asp Val Ile Phe Asn Phe Phe Ser Ile Leu Phe
            260                 265                 270
Pro Leu Gly Glu Ser Tyr Ile Ser Arg Cys Gly Arg Arg Glu Leu Thr
        275                 280                 285
Asp Lys Ser Val Gly Phe Phe Ala Asn Trp Trp Phe Leu Asp Pro Leu
    290                 295                 300
Gly Gly Leu Leu Leu Ser Val Tyr Ile Ile Trp Asn Trp Ser Gly Thr
305                 310                 315                 320
Ala Ala Thr His Ile Arg His Leu Thr Gly Ala Ala Ala Ser Pro Thr
                325                 330                 335
Asp His Ser Val Leu Leu Tyr Met Thr Met Arg Phe Ser Lys Ile Ile
            340                 345                 350
Thr Lys Ile Gln Asp Leu Lys Ala Tyr Tyr Ala Gly Asp His Leu Asn
        355                 360                 365
Val Glu Val Asp Ile Val Val Asp Glu Arg Thr Ser Leu Arg Asp Ala
    370                 375                 380
His Asp Val Gly Glu Ser Leu Gln Tyr Met Leu Glu Ser Val Pro Thr
385                 390                 395                 400
Val Asp Arg Ala Phe Val His Leu Asp Tyr Asp Pro Trp Asn Ile Pro
                405                 410                 415
Ser His Met Asn Gln Leu Glu Ala
            420
```

<210> 39201
<211> 61
<212> PRT
<213> A.fumigatus

<400> 39201

```
Gly Cys Gln Gly Gly Cys Val Ser Ser Pro Leu Phe Pro Leu Ala Pro
1               5                   10                  15
Ala Leu Ile Gly Asn Pro Leu Ser Leu Thr Phe Ser Asn Ser Asn Asp
            20                  25                  30
Tyr Ala Lys Leu Leu Ala Thr Arg Val His Glu Glu Lys Ala Lys Arg
        35                  40                  45
Asp Glu Leu Arg Lys Arg Arg Ala Ser Ser Met Arg Lys
    50                  55                  60
```

<210> 39202
<211> 113
<212> PRT
<213> A.fumigatus

<400> 39202
Leu Thr Leu Val Ile Thr Ala Ile Thr Asn Phe Asp Leu Ala Val Leu
1 5 10 15
Ala Leu Ser Ile Val Lys Gln Gly Glu Ser Glu Leu Pro Gly Leu Thr
20 25 30
Asp Thr Val Val Pro Lys Arg Leu Gly Pro Lys Arg Ala Thr Lys Ile
35 40 45
Arg Arg Phe Phe Gly Leu Asp Lys Lys Asp Asp Val Arg Lys Phe Val
50 55 60
Ile Arg Arg Thr Val Thr Arg Glu Gly Lys Pro Asp Tyr Thr Lys Ala
65 70 75 80
Pro Lys Ile Gln Arg Leu Val Thr Pro Gln Arg Leu Gln Arg Lys Arg
85 90 95
His Arg Ile Ala Leu Lys Arg Arg Arg Ala Glu Ala Ala Lys Glu Ala
100 105 110
Ala

<210> 39203
<211> 78
<212> PRT
<213> A.fumigatus

<400> 39203
Pro Arg Thr Pro Val Lys Met Lys Leu Asn Ile Ser Tyr Pro Ala Asn
1 5 10 15
Gly Ser Gln Lys Val Ile Glu Val Asp Asp Glu Arg Lys Leu Arg Pro
20 25 30
Phe Met Glu Lys Arg Met Gly Thr Glu Val Ser Thr Pro Pro Asp Ile
35 40 45
Phe Cys Phe Thr Tyr Pro Ala Pro Arg Lys His Thr Arg Glu Leu Phe
50 55 60
Ser Ala Glu Arg Lys Leu Asn Ile Glu Trp Arg Thr Glu Asp
65 70 75

<210> 39204
<211> 246
<212> PRT
<213> A.fumigatus

<400> 39204
Tyr Ser Cys His His Glu Asn Met Ala Gln Thr Ala Lys Ser Leu Arg
1 5 10 15
Gly Asn Tyr Ile Gly Ser Val Val Asp Asn Glu Lys Leu Ser Asn Thr
20 25 30
Met Leu Asn Met Tyr Lys Thr Pro Leu Ala Asp Phe Lys Ala Gln Val
35 40 45
Lys Gln Trp Thr Thr Ala Glu Arg Ala Ala Leu Glu Ser Leu Ser Asp
50 55 60
Glu Lys Ile Ala Ser Arg Gln Asn Asn Thr Ile Val Val Val Ser Phe
65 70 75 80
Gly Ile Trp Asp Leu Trp Asn Met Ile Gly Lys Ser Tyr Glu Asp Ser
85 90 95
Ile Asn Val Val Asp His Ser Ile Gln Val Ile Met Asp Gln Leu Asn
100 105 110
Val Leu Ser Gln Leu Trp Val Ile Asn Asn Leu Lys Val Ile Leu Thr

```
        115                 120                 125
Leu Thr Pro Asp Val Thr Phe Leu Pro Ala Phe Lys Pro Thr Ala Ala
    130                 135                 140
Glu Gln Arg Val Ser His Tyr Lys Asp Thr Val Lys Leu Thr Glu Tyr
145                 150                 155                 160
Trp Asn His Lys Leu Arg Asp Ala Ala Glu Gln Trp Val Gln Gly Ala
                165                 170                 175
Ile Tyr Leu Phe Asp Thr Asn Ala Phe Val Ala Asp Leu Ile Lys Asp
            180                 185                 190
Trp Gln Leu Phe Ala Ala Gly Val Glu Glu Ser Asn Gly Leu Gly Lys
        195                 200                 205
Asn Gln Asp Pro Gly Trp Val Asn Val Glu Asp Ala Cys Val Gln Ser
    210                 215                 220
Gly Gln Gln Trp Val Met Ala Thr Lys Glu Lys Gln Cys Glu Asn Pro
225                 230                 235                 240
Asp Lys Tyr Leu Phe Trp
                245
```

<210> 39205
<211> 65
<212> PRT
<213> A.fumigatus

<400> 39205

```
Leu Leu Cys Pro Pro Glu Thr Ser Phe Glu Ala Leu Ile Tyr Phe Leu
1               5                   10                  15
Thr Val Ser Gln Gln Phe Leu Val Leu Arg Lys Val Tyr Glu Glu Pro
            20                  25                  30
Leu Leu Ile Phe Asp Pro Met Ser Arg Ile Val Ile Ser Lys Arg Ile
        35                  40                  45
Gly Ala Asp Asn Thr Arg Val His Gly Gly Ile Leu Ile Thr Ile Leu
    50                  55                  60
Arg
65
```

<210> 39206
<211> 575
<212> PRT
<213> A.fumigatus

<400> 39206

```
Trp Ala Gln Val Arg Val Leu Lys Phe Pro Arg Phe Asn Ile Met Ile
1               5                   10                  15
Leu Gly Ala Pro Ile Ser Ser Ile Leu Asn Lys Asn Arg Ala Lys Ile
            20                  25                  30
Leu Thr Ser Lys Phe Glu Arg Ile Leu Lys Glu Arg Ala Arg Leu Lys
        35                  40                  45
Lys Leu Asp Leu Thr His Asp Leu Arg Lys Ala Asp Glu Leu Ile Ala
    50                  55                  60
Glu Leu Glu Ser Thr Arg Asp Leu Ser Gln Tyr Val Val His Val Asp
65                  70                  75                  80
Cys Asp Ala Phe Phe Ala Ala Val Glu Glu Leu Asp Arg Pro Glu Leu
                85                  90                  95
Lys Thr Val Pro Met Ala Val Gly Lys Gly Val Leu Thr Thr Cys Asn
            100                 105                 110
Tyr Glu Ala Arg Lys Tyr Gly Cys Arg Ser Gly Met Ala Ser Phe Val
```

```
        115                 120                 125
Ala Lys Lys Leu Cys Pro Gln Leu Ile Cys Leu Pro Gln Asn Tyr Glu
    130                 135                 140
Lys Tyr Thr Ala Lys Ala Gln Glu Ile Arg Val Ile Phe Ala Gln Tyr
145                 150                 155                 160
Asp Pro Leu Phe Glu Ser Ala Ser Ile Asp Glu Ala Tyr Leu Asn Ile
                165                 170                 175
Thr Ser Tyr Cys Thr Glu Asn Asn Leu Asp Pro Glu Glu Ala Val Ser
            180                 185                 190
Arg Met Arg Ala Glu Ile Leu Glu Thr Thr Lys Ile Ser Val Ser Ala
        195                 200                 205
Gly Ile Ala Ala Asn Ala Lys Val Ala Lys Ile Cys Ser Asn Arg Asn
    210                 215                 220
Lys Pro Asn Gly Gln Phe Arg Val Pro Asn Glu Arg Glu Ala Ile Met
225                 230                 235                 240
Glu Phe Met Arg Thr Leu Pro Val Arg Lys Val Asn Gly Val Gly Arg
                245                 250                 255
Val Phe Glu Arg Glu Leu Asp Ala Ile Gly Ile Lys Thr Cys Gly Asp
            260                 265                 270
Ile Tyr Pro Gln Arg Ala Leu Leu Thr Arg Leu Phe Gly Glu Lys Ala
        275                 280                 285
Phe His Phe Leu Met Gln Cys Phe Leu Gly Leu Gly Arg Thr Gln Ile
    290                 295                 300
Gln Pro Val Glu Asn Tyr Glu Arg Lys Ser Val Gly Thr Glu Arg Thr
305                 310                 315                 320
Phe Ser Glu Ile Gly Asp Lys Gln Leu Leu Arg Glu Lys Leu Trp Asp
                325                 330                 335
Thr Ala Gln Glu Leu Glu Lys Asp Leu Ala Arg Ala Glu Cys Lys Gly
            340                 345                 350
Arg Thr Leu Val Leu Lys Val Lys Leu Ala Thr Phe Glu Val Leu Ser
        355                 360                 365
Arg Gln Cys Gln Pro Pro Arg Ala Val Ser Leu Ala Lys Asp Leu Tyr
    370                 375                 380
Ala Phe Ser Leu Pro Met Leu Ala Lys Leu Glu Lys Glu Ile Pro Asn
385                 390                 395                 400
Met Lys Leu Arg Leu Leu Gly Leu Arg Cys Thr Asn Leu Val Ser Thr
                405                 410                 415
Lys Lys Val Asp Ile Asn Phe Phe Gly Ala Ala Ser Gln Ser Arg Ser
            420                 425                 430
Val Ala Gly Arg Lys Pro Asp Ala Met Thr Glu Gln Gln Ile Gly Ala
        435                 440                 445
Glu Glu Ala Phe Glu Glu Ala Ala Arg Gln Glu Arg Gln Asp Asp Ile
    450                 455                 460
Asn Glu Leu Glu Gln Leu Ser Gln Glu Ile Ser Asp Thr Glu Gln Pro
465                 470                 475                 480
Asn Lys Gly Gly Asp Thr Thr Met Leu Pro Glu Ser Glu Ser Gln Pro
                485                 490                 495
Gln Phe Trp Asp Cys Pro Ile Cys Ser Arg Pro Gln Val Ala Glu Asp
            500                 505                 510
Lys Ala Phe Asn Asp His Val Asp Tyr Cys Leu Ser Arg Glu Thr Ile
        515                 520                 525
Lys Glu Ala Val Gln Cys Thr Ala Asp Val Ser Pro Ile Ala Ile Glu
    530                 535                 540
Ser Thr Pro Lys Ile Ile Gly Arg Lys Arg Lys Ala Thr Lys Glu Pro
545                 550                 555                 560
Ser His Glu Ser His Asp Pro Arg Gln Arg Arg Leu Phe Phe Thr
```

565 570 575

<210> 39207
<211> 538
<212> PRT
<213> A.fumigatus

<400> 39207
Thr Pro Asp Ala Glu Thr Ala Ser Phe Leu Ser Val Asn Val Thr Pro
1 5 10 15
Arg Ser Gly Ser Arg Asn Ser Arg Arg Asp Gly Phe Leu Ser Pro Gly
20 25 30
Asn Ala Pro Ser Ser Gly Gln Ser Ser Pro Gln Val Gln Tyr Ser His
35 40 45
Ala Gly Val Gly His Val Ala Ser Ser Gly Gly Cys Arg Thr Glu Arg
50 55 60
Ser Pro Ala Arg Ser Asn Gly Lys Leu Glu Pro Ser Arg Gly Asn Arg
65 70 75 80
Ala Lys Thr Leu Thr Thr Glu Arg Pro Asn Thr Pro Arg Pro Asn Ser
85 90 95
Tyr Ser Asp Ser Ser Thr Ser Arg Met Phe Phe His Ala Tyr Asp Ala
100 105 110
Arg Ser Pro Asn Ser Ser Asp Gly Asp Ile Arg Ser Lys Gln Leu Ser
115 120 125
Lys Pro Ser Ser Pro Ala Thr Phe Val Tyr Ala Asn Gly Glu Gln Glu
130 135 140
Glu Gln Thr Gln Gly Glu Glu Ala Asn Ile Thr Ala Pro Thr Val Lys
145 150 155 160
Arg Arg Ser Ile Gly Ser Ser Arg Leu Ala Leu Ala Pro Lys Ala Leu
165 170 175
Pro Val Thr Ser Pro Arg Leu Arg Pro Ala Lys Leu Ala Asp Ser Ala
180 185 190
Ala Arg Leu Ser Asp Ala Thr Ser Gln Val Ser Ser Pro Arg Asp Gly
195 200 205
Ile Ser Glu Val Ser Ser Gln Ala His Ser Ser Phe Ser Gly Ala Phe
210 215 220
Pro Ala Arg Thr Pro Ile Pro Ala Val Arg His Ile Lys Ser Ser Ser
225 230 235 240
Leu Asp Ser Ala Ser Ser Gly Val His Pro Lys Glu Gly Leu Lys Pro
245 250 255
Ser Pro Ile Ile Val Ser Thr Val Gly Ser Pro Val Glu Thr Glu Ser
260 265 270
Ala Ala Ser Glu Ser Met Pro Gly Leu Arg Pro Arg Ile Leu Ser Asn
275 280 285
Gly Ser Met Thr Ser Val Asp Thr His Leu Ser Ser Ala Ala Gln Ser
290 295 300
Pro Val Lys Ser Asp Thr Gly Gln Ala Asn Asn Asp Val Val Leu Asn
305 310 315 320
Ala Arg Ile Glu Arg Lys Ile Leu Asp Leu Glu Ile Ser Asn Ser Ser
325 330 335
Leu Leu Ala Ile Asn Arg Thr Leu Glu Arg Glu Met Arg Lys Gln Asn
340 345 350
Ala Glu Leu Arg Arg Tyr Arg Arg Leu Ser Arg Ser Gly Arg Leu Ser
355 360 365
Met Ala Pro Ser Thr Arg Ser Phe Ser Gly Thr Ser Leu Gly Ile Thr
370 375 380

```
Asn Glu Leu Asp Glu Glu Ala Ser Glu Leu Ser Ser Ile Arg Ser Pro
385                 390                 395                 400
Glu Glu Leu Ser Glu Tyr Ser Asp Glu Asp Ser Thr Met Asp Ser Gly
                405                 410                 415
Val Val Ser Pro Asp Ser Leu Ala Asp His Asp Ala Arg His Arg Val
            420                 425                 430
Lys Asp Glu Lys Arg Phe Phe Val Asp Leu Ala Lys His Gln Glu Leu
        435                 440                 445
Leu Ala Asp Ser Gln Lys Ile Asn Gln Ser Leu Lys Arg Cys Leu Gly
    450                 455                 460
Trp Thr Glu Glu Leu Ile Lys Glu Gly Lys Lys Ala Leu Glu Tyr Ser
465                 470                 475                 480
Val His Val Asn Asp Val Gln Leu Gly Gly Arg Val Leu Ser Pro Glu
                485                 490                 495
Glu Leu His Glu Glu Ala Glu Arg Ala Arg Ala Leu Leu Ser Pro Val
            500                 505                 510
Ala Glu Pro Pro Pro Asp Pro Pro Leu Ala Ser Gln Glu Leu Glu Ser
        515                 520                 525
Leu Met Glu Met Leu Asp Asn Gly Gly Tyr
    530                 535
```

<210> 39208
<211> 156
<212> PRT
<213> A.fumigatus

<400> 39208

```
Pro Ala Ser Ala Gln Leu His Asn Ala Asn Ser Ser Asn His Leu Arg
1               5                   10                  15
Gln Ile Val Ile Ile Trp Asp Tyr Thr Phe Cys Arg Leu Ser Ile Gln
            20                  25                  30
Ala Ser Gly Ser Ser Gln Ala Gly Ser Gly Ser Ser Ser Ser Leu Ser
        35                  40                  45
Asp Leu Lys Phe Gly Pro Gly Asp Leu Cys Ser Ser Ser Leu Ser Arg
    50                  55                  60
Ser Ala Gly Gly Ser Gly Leu Ser Thr Pro Arg Gly Ser Val Asn Glu
65                  70                  75                  80
Ser Leu Leu Pro Ser Gly Gly Arg Ala Phe Val Val Ser Leu Pro Gly
                85                  90                  95
Ala Gly Asp Leu Ser Ser Val Asp Ala Leu Asn Ala Ser Ser Ser Ile
            100                 105                 110
Ser Arg Ala Ser Arg Arg Ala Ser Ser Ser Ala Pro Met Gln His Met
        115                 120                 125
Ser Ser Phe Gln Ser Phe Phe Ser Ala Arg Phe Arg Cys Cys Ser Thr
    130                 135                 140
Arg Leu Val Val Cys Ser Arg Ser Ser Thr Thr Asp
145                 150                 155
```

<210> 39209
<211> 81
<212> PRT
<213> A.fumigatus

<400> 39209

```
Arg Asn Ser Cys Gln Lys Phe Val Ala Asn Arg Leu Leu Thr Phe Arg
1               5                   10                  15
```

Glu Ala Leu Tyr Glu Asp Glu Ser Phe Pro Glu Arg Glu Leu Ala Ala
20 25 30
Leu Val Ala Ala Lys Val Tyr Tyr His Leu Gln Glu Tyr Asn Glu Ser
35 40 45
Met Val Phe Ala Leu Gly Ala Gly Lys Leu Phe Lys Leu Glu Asn Gly
50 55 60
Gly Glu Phe Glu Glu Thr Ile Ile Gly Lys Phe Trp Gln Tyr Ser Ser
65 70 75 80
Asp

<210> 39210
<211> 193
<212> PRT
<213> A.fumigatus

<400> 39210
Val Phe Ser Gln Ala Lys Cys Val Asp Thr Phe Ile Ser Leu Ser Ala
1 5 10 15
Ala Gln Arg Pro Ala Ala Gly Asp Pro Ser Ala Asn Leu Asn Asn Ser
20 25 30
Phe Pro Thr Ser Gly Glu Gly Ala Thr Ser Thr Ser Ala Ser Leu Thr
35 40 45
Ser Pro Ile Thr Pro Phe Ser Gln Ser Thr Leu Pro Ser Lys Ser Leu
50 55 60
Leu Ser Arg Gln Glu Val Pro Gly Leu Asp Ala Ala His Pro Gly Gly
65 70 75 80
Glu Asp Val Ser Val Lys His Asp Glu Thr Thr Leu Val Leu Lys Arg
85 90 95
Gly Val Gln Gly Gln Leu Gln Ser Val Ile Glu Arg Leu Phe Glu Gln
100 105 110
Cys Phe Val Gln Lys Arg Tyr Arg Gln Val Ile Gly Ile Ala Ile Glu
115 120 125
Ala Lys Asn Leu Asp Val Leu Arg Arg Ala Ile Ile Arg Ala Ser Glu
130 135 140
Asp Gly Lys Lys His Gly Gly Ser Arg Arg Ser Glu Glu Leu Met Glu
145 150 155 160
Tyr Val Leu Asp Ile Cys Met Gly Ile Val Gln Glu Arg Ala Phe Arg
165 170 175
Asn Glu Val Cys Leu Phe Ser Cys Phe Ile Cys Arg Cys Gln Ala Phe
180 185 190
Arg

<210> 39211
<211> 742
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (727),(735),(739)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39211
Ile Leu Lys Leu Ile Leu Glu Leu Leu Asn Glu Ile Pro Ala Pro Asp

```
1               5                  10                  15
Tyr Phe Ser Ile Ala Lys Cys Val Val Phe Leu Asn Glu His Ser Met
            20                  25                  30
Ala Ser Val Ile Leu Arg Gln Leu Val Glu Lys Gly Asp Ala Arg Ser
        35                  40                  45
Leu Ala Val Ala Tyr Gln Ile Ser Phe Asp Leu Tyr Asp Asn Ser Thr
    50                  55                  60
Gln Glu Phe Leu Lys Lys Val Arg Glu Glu Ile Ala Glu Leu Val Pro
65                  70                  75                  80
Glu Glu Gln Gln Pro Asp Ser Ser Lys Thr Glu Ser Gln Glu Glu Pro
                85                  90                  95
Lys Glu Ser Asp Pro Leu Leu Gln Asp Gln Ser Ser Ser Glu Gln Ser
            100                 105                 110
Arg Ser Leu Gly Leu Asn Asn Thr Gln Ala Lys Leu Ser Asp Glu Ala
        115                 120                 125
Arg Thr Ala Phe Lys Asn Ile Leu Glu Ile Leu Asp Gly Ile Lys Ser
    130                 135                 140
Ile Gln Leu Asn Leu Glu Phe Leu Tyr Arg Asn Asn Lys Ala Asp Ile
145                 150                 155                 160
Ala Ile Leu Asn Lys Val Arg Asp Ser Leu Glu Ala Arg Asn Ser Ile
                165                 170                 175
Phe His Thr Ala Val Thr Leu Ser Asn Ala Phe Met His Ala Gly Thr
            180                 185                 190
Thr His Asp Lys Phe Phe Arg Asp Asn Leu Glu Trp Leu Gly Lys Ala
        195                 200                 205
Val Asn Trp Ser Lys Phe Thr Ala Thr Ala Ala Leu Gly Val Ile His
    210                 215                 220
Arg Gly Asn Leu Ser Gln Gly Gln Lys Leu Leu Gln Pro Tyr Leu Pro
225                 230                 235                 240
Arg Glu His Ile Ala Gly Val Gly Gly Ser Gly Ser Val Tyr Ser Gln
                245                 250                 255
Gly Gly Ser Leu Tyr Ala Phe Gly Leu Ile Tyr Ala Asn His Gly Gly
            260                 265                 270
Met Ala Val Asp Met Ile Arg Asp His Phe Lys Lys Ala Thr Glu Glu
        275                 280                 285
Val Val Gln His Gly Gly Ala Leu Gly Leu Gly Val Ala Gly Met Ala
    290                 295                 300
Thr Gly Asp Glu Gly Ile Tyr Glu Asp Leu Arg Asn Val Leu Tyr Thr
305                 310                 315                 320
Asp Ser Ala Leu Asn Gly Glu Ala Val Gly Leu Ala Met Gly Leu Val
                325                 330                 335
Met Leu Gly Thr Gly Asn Met Arg Ala Leu Glu Asp Met Ile Gln Tyr
            340                 345                 350
Ala His Asp Thr Gln His Glu Lys Ile Val Arg Gly Leu Ala Met Gly
        355                 360                 365
Met Ala Leu Ile Met Tyr Gly Arg Gln Glu Ala Ala Asp Glu Leu Ile
    370                 375                 380
Asn Gly Leu Leu Gly Asp Pro Asp Pro Thr Leu Arg Tyr Gly Gly Ile
385                 390                 395                 400
Met Thr Ile Ala Leu Ala Tyr Cys Gly Thr Gly Ser Asn Lys Ala Val
                405                 410                 415
Arg Lys Leu Leu His Val Ala Val Ser Asp Val Asn Asp Asp Val Arg
            420                 425                 430
Arg Val Ala Val Leu Ser Leu Gly Phe Ile Leu Phe Arg Lys Tyr Gln
        435                 440                 445
Ser Val Pro Arg Met Val Glu Leu Leu Ser Glu Ser Tyr Asn Pro His
```

```
    450                 455                 460
Val Arg Tyr Gly Ala Ala Met Ala Leu Gly Ile Ser Cys Ala Gly Thr
465                 470                 475                 480
Gly Leu Asp Glu Ala Ile Asp Leu Leu Glu Pro Met Leu Lys Asp Ser
                485                 490                 495
Thr Asp Phe Val Arg Gln Gly Ala Leu Ile Ala Leu Ala Met Val Leu
            500                 505                 510
Val Gln Gln Asn Glu Ala Met Asn Pro Arg Val Ser Ser Leu Arg Lys
        515                 520                 525
Ala Met Met Lys Met Ile Gly Asp Arg His Glu Asp Ala Met Ala Lys
    530                 535                 540
Phe Gly Cys Ala Val Ala Leu Gly Ile Ile Asp Ala Gly Gly Arg Asn
545                 550                 555                 560
Cys Thr Ile Ser Val Gln Thr Gln Thr Gly Asn Leu Asn Met Pro Gly
                565                 570                 575
Ile Val Gly Thr Ala Val Phe Ile Gln Tyr Trp Tyr Trp Phe Pro Leu
            580                 585                 590
Thr His Phe Leu Ser Leu Ser Phe Thr Pro Thr Ala Val Ile Gly Val
        595                 600                 605
Asp Gln Lys Leu Glu Val Pro Phe Phe Lys Phe His Ser Asn Thr Arg
    610                 615                 620
Pro Ser Leu Phe Asp Tyr Pro Pro Glu Gln Gln Val Lys Ala Glu Glu
625                 630                 635                 640
Ala Pro Glu Lys Val Lys Thr Ala Val Leu Ser Thr Thr Ala Gln Ala
                645                 650                 655
Lys Arg Arg Ala Gln Arg Arg Glu Lys Gln Gln Arg Arg Glu Ser Met
            660                 665                 670
Asp Val Asp Gln Thr Pro Thr Thr Pro Lys Val Ser Asp Gln Leu Pro
        675                 680                 685
Glu Lys Met Glu Thr Asp Glu Gly Ala Glu Lys Pro Glu Glu Glu Ala
    690                 695                 700
Lys Glu Gly Glu Lys Gly Ala Gly Asp Gly Pro Lys Lys Lys Ala Glu
705                 710                 715                 720
Arg Glu Lys Ala Gly Tyr Xaa Phe Leu Ser Arg Ser Cys Lys Xaa Asn
                725                 730                 735
Met Asn Xaa Gly Arg Arg
            740
```

<210> 39212
<211> 64
<212> PRT
<213> A.fumigatus

```
<400> 39212
Thr Val Ala Leu Leu Ile Ile Met Asp Gly Arg Tyr Gly Ile Leu Gln
1               5                   10                  15
Ala Ser Ser Phe Gly Pro Lys Pro Gly Asn Leu Phe Gln Ser Ile Arg
            20                  25                  30
Pro Phe Val Lys Ser Glu Ala Glu Tyr Phe Ser Phe Leu Leu Phe Gln
        35                  40                  45
Phe Gln Gln Ile Ile Asp Arg Leu Glu Tyr Pro Phe Pro Cys Phe Thr
    50                  55                  60
```

<210> 39213
<211> 89
<212> PRT

<213> A.fumigatus

<400> 39213
Gln Ser Arg Pro Leu Ser His Gln Pro Arg Lys Pro Gly Leu Gly Ser
1 5 10 15
Lys Thr Tyr Leu Ser Lys Met Val Gly Leu Ala Ser Ala Ala Gly Leu
20 25 30
Val Gly Phe Leu Ser Glu Pro Asp Pro Glu Leu Arg Val Phe Ala Leu
35 40 45
Lys Thr Leu Asp Ser Gln Ile Asp Leu Leu Trp Thr Glu Val Val Asp
50 55 60
Ala Val Pro Gln Met Leu Val Ile His Pro Ile Ser Thr Ser Leu Leu
65 70 75 80
Lys Lys Phe Leu Pro Lys Val Cys Arg
85

<210> 39214
<211> 212
<212> PRT
<213> A.fumigatus

<400> 39214
Ala Glu Asp Met Ala Lys Ala Tyr Pro Lys Ala Phe Ala Gly Ala Pro
1 5 10 15
Arg Arg Pro Arg Ile Val Pro Glu Ser Ala Val Pro Ile Ser Leu Asp
20 25 30
Pro Pro Thr Gln Ala Arg Leu Tyr Ser Glu Val Glu Val Met Ile Cys
35 40 45
Val Thr Ala Asn Thr Phe Leu Val Arg Gln Tyr Glu Ala Gly Arg Ile
50 55 60
Ser Glu Glu Ser Ile Lys Arg Val Thr Asn Phe Trp Gly Ser Lys Asn
65 70 75 80
Arg Pro Gln Val Val Glu Phe Gln Phe Asp Gln Ala Thr Gln Arg Arg
85 90 95
Leu Ile Leu Ser Asn Ile Arg Thr Leu Ser Phe Asp Gly Glu Ser Ser
100 105 110
Thr Asn Pro Ile Leu Leu His Ser Asn Leu His Asn Trp Lys Ala Val
115 120 125
Val Lys Glu Met Ser Val Arg Thr Phe Cys Ala Pro Asp Ser Ala Ile
130 135 140
Arg Lys His Met His Asp Ile His Lys Leu Leu Glu Met Leu Gly Ala
145 150 155 160
His Asp Ala Thr Leu Leu Ala Phe Glu Glu Leu Gln Met Ser Thr Leu
165 170 175
Ala Leu Met Arg Gln Arg Arg Gln Met Asn Tyr Asp Leu Glu Arg Ser
180 185 190
Asn Ser Asn Phe Ser Ala Pro Ala Thr Asp Pro Gln Lys Val Val Gly
195 200 205
Ser Cys Thr Asn
210

<210> 39215
<211> 371
<212> PRT
<213> A.fumigatus

<400> 39215

```
Met Leu Arg Ser Phe Arg Leu Ala Ser Thr Phe Ser Ser Pro Lys Phe
1               5                  10                  15
Leu Ser Lys Thr Ser His Met Met Ala Gly Pro Leu His Thr Tyr Gly
            20                  25                  30
Pro Thr Cys Leu Leu Ala Asp Asp Asp Pro Asp His Ser Thr Trp Tyr
        35                  40                  45
Ser Leu Ser Glu Pro Pro Lys Val Arg Ala Gln Phe Phe Tyr Thr Ser
    50                  55                  60
Ser Leu Pro Ile Asp Asp Pro Leu Ser Ala Leu Pro Pro Pro Ser Ser
65                  70                  75                  80
Gly Gln Asn Ala Lys Asn Glu Arg Ala Pro Pro Gln Pro Phe Ser Val
                85                  90                  95
Lys Asp Asn Ile Ala Leu Glu Glu Ala Trp Arg His Leu Arg Gln Thr
            100                 105                 110
Met Lys Glu Lys Ala Ala Gly Ser Lys Lys Ser Ser Ser Ile Leu Arg
        115                 120                 125
Asn Ala Gly Ile Ala Val Pro Gly Lys Gly Ser Thr Ser Asp Thr Glu
    130                 135                 140
Gln Ser Lys His Thr Gly Ser Arg Arg Asp Gly Ser Leu Thr Gly Ile
145                 150                 155                 160
Asp Lys Ser Pro Pro Asn Gly His Ser Ser Ser Thr Asn Asp Gln Arg
                165                 170                 175
Ile His Ser Ser Arg Gly Glu Ser Asn Asp Gly Val Gly Gly Ala Gly
            180                 185                 190
Asp Arg Val Ser Trp Gly Arg Ser Gln Phe Gly Ser Ala Gln Asp Asp
        195                 200                 205
Gly Ser Asp Asn His Asn Leu Arg Lys Arg Glu Leu Ser Leu Ser Gly
    210                 215                 220
Gln Pro His Ala Ala Lys Arg Ala Ala Gly Thr Ser Ser Glu Ser Glu
225                 230                 235                 240
Asn Pro Ser Met Arg Gly Phe Ala Ser Gly Ile Leu Pro Gly Thr Ser
                245                 250                 255
Ser His Asp Ala Ser Ile Ser Gly Ser Pro Phe Ala Arg Ala Pro Ile
            260                 265                 270
Ala Gln Ser Gln Ser Pro Leu Gly Arg Ser Val Glu Ser Val Ser Ser
        275                 280                 285
Lys Gly Gly Ser Ser Asn Ile Gln Ala Glu Pro Tyr His Val Gly Ser
    290                 295                 300
Asn His Thr Ala Thr Lys Pro Ser Asp Leu Arg Asn Ser Phe Asp Gln
305                 310                 315                 320
Asp Asn Ser Ser Glu Gly Pro Ile Met Glu Ala Gly Ala Val Asp Gln
                325                 330                 335
Asp Asp Thr Ser Gln Leu Lys Val Pro Val Gly Val Ser Arg Leu His
            340                 345                 350
Leu Val Glu Leu Pro Asn Leu Lys Val Val Phe Pro Ser Ile Ala Glu
        355                 360                 365
Phe Lys Ile
    370
```

<210> 39216
<211> 73
<212> PRT
<213> A.fumigatus

<400> 39216

```
Asn Asn Asp His Ile Asn Arg Gln Tyr Asp Ala Asp Tyr His Glu Ala
1               5                  10                  15
Ile Ser Val Pro Tyr Thr Phe Phe Ser Ala Met His Leu Leu Leu Lys
            20                  25                  30
Phe Tyr Gln Val Phe Ala Ser Val Phe Ser Cys Asp Pro Ser Ala Arg
        35                  40                  45
Ser Ser Ser Cys Leu Cys Cys Arg Val Leu Leu Arg Arg Gln Phe Asp
    50                  55                  60
Pro Ile Val His Thr Ala Ser Ser Pro
65                  70
```

<210> 39217
<211> 231
<212> PRT
<213> A.fumigatus

<400> 39217

```
Ser Pro Cys Pro Leu Glu Asn Ala Tyr Val Leu Ile Val Arg Ser Ile
1               5                  10                  15
His Leu Ser Tyr Glu Asp Ile Ala Lys Leu Asn Pro Phe Tyr Glu Lys
            20                  25                  30
Tyr Arg Glu Phe Trp Asn Thr Thr Pro Asp Thr Thr Val Thr Thr Leu
        35                  40                  45
Ser Ser Leu Asp Pro Ser Ser Arg Ser Pro Ser Phe Gln Ser Val His
    50                  55                  60
Ala Ser Thr Val Ala Pro Pro Ser Pro Leu Asp Ile Ser Ser Ser Pro
65                  70                  75                  80
Ser Leu His Cys Ala Glu Pro Ser Ala Gly Leu His Phe Ser Ala Met
                85                  90                  95
Leu Asp Val Pro Leu His Lys Gly Thr Gln Arg Lys Pro Ser Val Arg
            100                 105                 110
Val Tyr Asp Glu Asp Ile Pro Thr Ser Gln Gln Ala Thr Phe Val Ile
        115                 120                 125
Glu Gly Tyr Ser Asn His Ser Leu Ser Pro Val Asn Glu Ala Leu Glu
    130                 135                 140
Met Cys Asp Phe His Pro Ile Asp Arg His His Phe Ser Asp Thr Thr
145                 150                 155                 160
Gln Gln Val Arg Ser Ser His Lys Lys Leu Phe Gly Thr Asn Gly Trp
                165                 170                 175
Leu Gly Gln Ala Asp Asp Ser Asn Thr Val Pro Leu Lys Arg Gln Lys
            180                 185                 190
Ser Lys Ile Phe Arg Asp Leu Gly Lys Lys Ile Lys His His Val Gly
        195                 200                 205
Glu Ile Val Ser Ala His Ser Asn Phe Leu Ile Leu Ser Phe Thr Val
    210                 215                 220
Ser Leu Ile Gln Ser Ile Gly
225                 230
```

<210> 39218
<211> 362
<212> PRT
<213> A.fumigatus

<400> 39218

```
Met Lys Pro Ile Tyr Trp Ser Pro Leu His Asp Glu Ser Asn Val Leu
1               5                  10                  15
```

```
Arg Ala Thr Trp Phe Tyr Lys Asn Thr Met Leu Pro Val Glu Thr Glu
            20                  25                  30
Leu Ala Asn Lys Leu Glu Asp Gly Tyr Ile Tyr Leu Lys Pro Trp Thr
        35                  40                  45
Asp Thr Trp Gln Asp Glu Leu Asn Ser Cys Val Glu Asn Gly Ala Asp
    50                  55                  60
Ala Glu Met Lys Ile Val His Lys Leu Trp Pro Lys Pro Glu Thr Lys
65                  70                  75                  80
Ser Asn Ser Thr Pro Thr Ser Arg Pro Gly Ser Ser Ala Gln Leu Arg
                85                  90                  95
Ser Ala Gly Ser Asp Ser Asp Ser Pro Thr Phe Glu Glu Asn Arg Ala
            100                 105                 110
Ala Gly Gly Thr Thr Ala His Thr Glu Ala Ala Lys Pro Phe Leu Asn
        115                 120                 125
Ser Ser Val Ile Tyr Val Asp Gly Arg Asn Ala Gln Ile Leu Arg Pro
    130                 135                 140
Ser Leu Leu Pro Ser Val Ser Arg Gly Arg Arg Pro Leu Ser Ser Ile
145                 150                 155                 160
Arg Lys Gly Arg His Ile Gly Ile Pro Val Val Arg Gly Phe Ser Arg
                165                 170                 175
Arg Ser Trp Glu Gln Leu His Pro Ser Lys Pro Ser Pro Val Asp Val
            180                 185                 190
Arg Asn Tyr Leu Arg Ile Gln Ser Arg Ala Met Ser Arg Thr Asp Gly
        195                 200                 205
Arg Gln Val Cys Tyr Ala Cys Ala Met Glu Gly Ser Arg Pro Thr Pro
    210                 215                 220
Thr Asp Leu Val Leu Val Ile His Gly Ile Gly Gln Lys Leu Ser Glu
225                 230                 235                 240
Arg Met Glu Ser Phe His Phe Thr His Ala Ile Asn Ala Phe Arg Arg
                245                 250                 255
Asn Ile Asn Met Glu Leu Asn Asn Glu Pro Val Trp His His Val Arg
            260                 265                 270
Arg Asp His Gly Gly Ile Met Ala Leu Pro Val Asn Trp Arg Ser Thr
        275                 280                 285
Leu Ser Leu Ala Asp Gly Ser Leu Glu Ser Glu Ile Ser Asp Asp Pro
    290                 295                 300
Ser Ala Asn His Tyr Ser Leu Asn Asp Ile Thr Pro Glu Thr Ile Pro
305                 310                 315                 320
Ala Val Arg Ser Leu Ile Ser Asp Val Met Leu Asp Ile Pro Tyr Tyr
                325                 330                 335
Leu Ser His His Lys Pro Lys Met Ile Gln Ala Val Val Ser Ser Pro
            340                 345                 350
Arg Gly Trp Lys Asp Pro Arg Gly Arg Tyr
        355                 360
```

<210> 39219
<211> 71
<212> PRT
<213> A.fumigatus

<400> 39219

```
Asp Thr Val Thr Arg Thr Thr Asp Ser Val Ile Gly Phe Ser Ser Ala
1               5                   10                  15
Thr Val Tyr Ser Leu Val Ile Gly Arg Arg Arg Met Ala Ile Arg Arg
            20                  25                  30
Thr Leu Ile Asn Ser Ser Glu Ala Ser Ile Ser Thr Ala Ala Cys Met
```

```
        35                  40                  45
Phe Ala Leu Leu Arg Val Thr Ser Arg Ser Leu Pro Arg Tyr Ser Tyr
    50                  55                  60
Thr Cys Ile Ser Gln Asn Thr
65                  70
```

<210> 39220
<211> 83
<212> PRT
<213> A.fumigatus

<400> 39220

```
Phe Gly Asn Cys Leu Lys Tyr Leu Val Pro Tyr Ser Ser Gln Val Ile
1               5                   10                  15
Val Thr Lys Ala Pro Ile Gly Ser Leu Leu Ser Val Phe Phe Gln Thr
            20                  25                  30
Phe Ala Asp Gly Leu Gly Asp Phe Val Phe Gly Asn Tyr Trp Arg Leu
        35                  40                  45
Leu Glu Thr Leu Asn Ser Cys Leu Asn Ser Gly Gln Asn Leu Ile Ile
    50                  55                  60
Ser His Gly Leu Phe Thr Leu Arg Leu Val Cys Leu Glu Pro Phe Ala
65                  70                  75                  80
Gln Ala Leu
```

<210> 39221
<211> 234
<212> PRT
<213> A.fumigatus

<400> 39221

```
Asp Ser Pro Thr Phe Ser Lys Lys Val Phe Val Ser Lys Leu Met Arg
1               5                   10                  15
Ser His Val Ser Leu Thr Leu Ser Pro Met Ala Pro Met Thr Ser Phe
            20                  25                  30
Met Ser Ser Ala Arg Ala Leu Val Val Val Ile Ala Ser Arg Cys Ala
        35                  40                  45
Leu Ser Arg Ser Ser Ala Ser Val Asn Phe Glu Pro Ile Glu Leu Trp
    50                  55                  60
Thr Ser Ser Tyr Leu Ala Met Thr Ser Pro Ser Phe Ser Ser Asn Phe
65                  70                  75                  80
Ala Pro Ser Ser Thr Met Met Ala Ala Arg Thr Ser Ser Cys Leu Thr
                85                  90                  95
Arg Ala Ala Ala Ser Arg Ser Ser Ile Ser Ser Leu Pro Ala Ser Cys
            100                 105                 110
Ser Pro Arg Thr Arg Ser Asn Ser Arg Leu Met Ser Ser Val Ser Ser
        115                 120                 125
Trp Met Leu Ser Thr Val Val Lys Leu Ser Ala Glu Ala Ala Lys Pro
    130                 135                 140
Ser Lys Ser Cys Leu Ser Ser Glu Ser Pro Ser Glu Leu Pro Ser Ser
145                 150                 155                 160
Leu Leu Phe Ser Ser Ser Pro Ser Pro Ser Thr Thr Ala Leu Ala Ser
                165                 170                 175
Ser Ile Phe Ser Ala Ser Pro Ala Cys Ser Thr Phe Leu Ala Ser Asn
            180                 185                 190
Pro Cys Ala Val Asn Ser Phe Ser Ala Ser Thr Phe Ser Leu Lys Ser
```

```
        195                 200                 205
Val Thr Ser Ile Asp Lys Ser Leu Met Ser Val Phe Val Gly Ser Val
    210                 215                 220
Ser Thr Ser Gly Ser Phe Asn Ser Ser Thr
225                 230
```

<210> 39222
<211> 208
<212> PRT
<213> A.fumigatus

<400> 39222

```
Val Phe Thr Ser Asn Ile Met Ala Ser Thr Val Cys Lys Ser Asp Leu
1               5                   10                  15
Thr Ser Phe Ser Val Ser Gly Ser Pro Ser Glu Ser Leu Leu Leu Ser
            20                  25                  30
Ser Ser Lys Ala Ile His Ile Ser Phe Arg Arg Val Ser Arg Val Pro
        35                  40                  45
Ile Ser Asp Leu Val Gly Pro Ser Ala Ser Arg Arg Ala Glu Ser Pro
    50                  55                  60
Val Ile Ala Ser Phe Ala Ser Trp Thr Met Thr Ser Arg Leu Ser Ser
65                  70                  75                  80
Cys Ser Ala Phe Ala Ile Ser Ser Arg Ala Gly Asn Phe Ser Ser Ser
                85                  90                  95
Ser Trp Asp Phe Val Phe Arg Ser Ser Val Ser Met Ala Ser Val Ser
            100                 105                 110
Ser Phe Phe Ala Val Lys Ser Ser Thr Gly Phe Ser Arg Ala Thr Ile
        115                 120                 125
Pro Ala Thr Glu Leu Trp Ser Ser Cys Arg Pro Ala Thr Thr Ser Ser
    130                 135                 140
Arg Cys Ser Phe Phe Arg Thr Ser Ser Asp Gly Ser Gly Ala Arg Gly
145                 150                 155                 160
Ala Asp Ser Met Ala Ser Thr Leu Ile Cys Ser Ser Val Met Arg Val
                165                 170                 175
Leu Arg Ala Ser Met Ser Leu Leu Ile Phe Gly Ser Phe Ala Ser Ile
            180                 185                 190
Asn Ser Pro Pro Arg Val Gly Ser Gly Ser Leu Asp Ser Ser Cys Asp
        195                 200                 205
```

<210> 39223
<211> 1313
<212> PRT
<213> A.fumigatus

<400> 39223

```
Pro Met Lys Leu Lys Arg Trp Ser Glu Asn Cys Glu Asp Ile Val Leu
1               5                   10                  15
Gly Met Gly Arg Asp Leu Ala Arg Arg Leu Glu Glu Ile Glu His Ile
            20                  25                  30
Arg Phe Ala Gly Asp Asp Glu Pro Lys Ala Pro Ser Lys Asp Glu Ile
        35                  40                  45
Ala Ala Ile Val Glu Gln Ser Leu Gln Glu Leu Lys Asn Gln Leu Ser
    50                  55                  60
His Ile Met Asn Glu His Arg Gln His Ala Ser Ala Leu Ser Glu Phe
65                  70                  75                  80
Arg Ser Ala Met Asp Gly Ala Glu Ile Tyr Phe Ile Val Lys Arg Val
```

```
                85                  90                  95
Ile Glu Glu His Ser Met Ser Gln Pro Gln Glu Pro Gly Phe Gln Arg
            100                 105                 110
Asp Glu Ile Leu Glu Thr Val Arg Glu Ala Trp Glu Thr Tyr Lys Pro
        115                 120                 125
Glu Ile Glu Leu Gln Asn Phe Gly Leu Glu Arg Asp Glu Ile Leu Glu
    130                 135                 140
Cys Leu Ser Glu Gly Leu Lys Ala Tyr Gln Pro Gln Arg Glu Gln Ala
145                 150                 155                 160
Val Thr Tyr Asp Gln Val Leu Ala Ala Val Gln Ala Gly Val Gln Ser
                165                 170                 175
Phe Glu Gln Pro Pro Ile Val Thr Lys Asp Glu Ile Ala Gln Thr Ile
            180                 185                 190
Arg Glu Cys Leu Lys Glu His Thr Gln Gln Thr Ala Asp Arg Arg Leu
        195                 200                 205
Arg His Asp Asp Leu Ala Ala Val Arg Asp Glu Ile Leu Gln Ala Val
    210                 215                 220
Thr Glu Ser Phe Ala Ser Gln Ser Ala Leu Ile Arg Glu Ser Leu Glu
225                 230                 235                 240
Leu Gly Leu Gly Arg Asp Glu Ile Leu Thr Ala Leu Ser Glu Gly Leu
                245                 250                 255
Glu Thr Tyr Phe Asn Ala Ala Lys Glu Thr Glu Pro Val His Ile Thr
            260                 265                 270
Lys Asp Asp Val Ile Asn Ala Ile Asn Asp Ala Phe Ala Ala Gln Asn
        275                 280                 285
Ser Ala Ile Ser Thr Ile Val Glu Leu Asp Ile Ser Arg Glu Glu Ile
    290                 295                 300
Leu Ala Ala Ile Ala Glu Gly Leu Glu Ser Gln Asn Ser Met Ile Arg
305                 310                 315                 320
Glu Ile Glu Leu Asn Lys Glu Asp Leu Met Glu Ala Ile Ser Ala Gly
                325                 330                 335
Leu Gln Glu Ala Leu Ser Ser Val Asn Leu Asn Ala Gly Glu Gln Ala
            340                 345                 350
Leu Glu Arg Phe Gln Glu Leu Val Gln Glu Ile Lys Asp Asn Val Gln
        355                 360                 365
Gln Gln Ala Leu Ala Gly Glu Lys Ser Ser Glu Gln Val Leu Glu Ala
    370                 375                 380
Ile Lys Asp Gly Leu Ala Ala Val Lys Gln Ala Val Glu Gly Tyr Ala
385                 390                 395                 400
Ala Thr Ala Val Glu Ala Ser Gly Lys His Glu Ile Met Asp Thr Val
                405                 410                 415
Lys Glu Gly Phe Arg Leu Leu His Ala Asp Met Glu Lys Thr Ile Ala
            420                 425                 430
Asp Ala Ala Leu Ser Asn Ser Arg Gly Val Asn Pro Asp Thr Pro Glu
        435                 440                 445
Leu Leu Asp Ala Met Glu Lys Glu Phe Glu His Leu Arg Gln Thr Leu
    450                 455                 460
Ser Ser Leu Leu Ile Arg Thr Asn Val Ser Ser Asp Lys Asp Glu Ile
465                 470                 475                 480
Leu Asp Ala Ile Arg Asp Ala Ser Glu Ser Gln Lys Val Pro Ser Val
                485                 490                 495
Asp Asp Ile Ala Lys Val Ile Lys Glu Glu Phe Asp Ser Ile Arg Glu
            500                 505                 510
Thr Met Thr Thr Ser Leu Val Pro Ile Gln Pro Lys Ser Gly Asn Asp
        515                 520                 525
Glu Ile Val Ala Ala Leu Arg Glu Ser Phe Glu Ala Phe Arg Glu Ser
```

```
    530                 535                 540
Asn Asn Gln Thr Lys Asp Ser Gly Asp Ser Val Ser Phe Ser Thr Gly
545                 550                 555                 560
Glu Val Ile Glu Val Leu Asn Asp Gly Val Ala Thr Ile Arg Gly Asp
                565                 570                 575
Leu Ser Lys Leu Leu Asp Arg Pro Glu Gln Ile Asp Tyr Ser Glu Leu
            580                 585                 590
Leu Asp Thr Leu Lys Glu Gly Leu Ser Ser Leu Lys Ala Asp Val Glu
        595                 600                 605
Ser Leu Arg Gln Ser Gln Asp Glu Ser Arg Glu Pro Glu Pro Thr Arg
    610                 615                 620
Gly Gly Glu Leu Met Leu Ala Asn Glu Pro Asn Ile Ser Ser Asp Ile
625                 630                 635                 640
Glu Ala Leu Lys Thr Leu Ile Thr Glu Leu Gln Ile Lys Val Asp Ala
                645                 650                 655
Ile Glu Ser Ala Pro Arg Ala Pro Glu Pro Ser Glu Asp Val Leu Lys
            660                 665                 670
Lys Glu His Leu Asp Glu Val Val Ala Gly Leu His Glu Leu Gln Ser
        675                 680                 685
Ser Val Ala Gly Ile Val Ala Arg Glu Asn Pro Val Asp Asp Leu Thr
    690                 695                 700
Ala Lys Lys Glu Asp Thr Asp Ala Ile Glu Thr Leu Leu Arg Asn Thr
705                 710                 715                 720
Lys Ser Gln Leu Asp Glu Leu Lys Phe Pro Ala Leu Asp Glu Ile Ala
                725                 730                 735
Lys Ala Glu Gln Leu Asp Ser Leu Glu Val Ile Val His Glu Ala Lys
            740                 745                 750
Glu Ala Ile Thr Gly Leu Ser Ala Arg Leu Glu Ala Glu Gly Pro Thr
        755                 760                 765
Lys Ser Glu Ile Gly Thr Leu Glu Thr Leu Leu Lys Asp Met Trp Ile
    770                 775                 780
Ala Phe Asp Glu Leu Lys Ser Lys Asp Ser Glu Gly Glu Pro Asp Thr
785                 790                 795                 800
Glu Lys Leu Val Lys Ser Asp Leu Gln Thr Val Glu Ala Met Ile Phe
                805                 810                 815
Glu Val Lys Thr Gln Val Glu Glu Leu Lys Leu Pro Asp Val Glu Thr
            820                 825                 830
Leu Pro Thr Lys Thr Asp Ile Lys Asp Leu Ser Met Leu Val Thr Asp
        835                 840                 845
Phe Arg Glu Lys Val Glu Ala Glu Asn Glu Leu Thr Ala Gln Gly Phe
    850                 855                 860
Glu Ala Arg Lys Val Glu His Ala Gly Leu Ala Glu Lys Ile Asp Glu
865                 870                 875                 880
Ala Arg Ala Val Val Glu Gly Leu Gly Asp Glu Leu Lys Ser Lys Leu
                885                 890                 895
Asp Gly Ser Ser Glu Gly Leu Ser Glu Leu Lys Gln Leu Leu Glu Gly
            900                 905                 910
Leu Ala Ala Ser Ala Glu Ser Phe Thr Thr Val Glu Ser Ile His Glu
        915                 920                 925
Leu Thr Glu Leu Ile Asn Arg Glu Phe Glu Arg Val Arg Gly Glu Gln
    930                 935                 940
Asp Ala Gly Lys Leu Glu Met Glu Glu Arg Asp Ala Ala Ala Leu Val
945                 950                 955                 960
Lys His Asp Glu Val Arg Ala Ala Ile Ile Val Glu Leu Gly Ala Lys
                965                 970                 975
Phe Asp Glu Lys Leu Gly Glu Val Met Ala Lys Tyr Asp Glu Val His
```

```
            980                 985                 990
Asn Ser Ile Gly Ser Lys Phe Thr Glu Ala Glu Glu Arg Asp Asn Ala
        995                1000                1005
His Leu Glu Ala Ile Thr Thr Thr Lys Ala Leu Ala Glu Asp Ile Lys
    1010                1015                1020
Leu Val Ile Gly Ala Met Gly Asp Ser Val Asn Glu Thr Cys Glu Arg
1025                1030                1035                1040
Ile Ser Leu Asp Thr Lys Thr Phe Phe Glu Lys Val Gly Glu Ser Tyr
                1045                1050                1055
Thr Lys Ile Glu Glu Met His Asn Glu Val Lys Thr His His Glu Gln
            1060                1065                1070
Ala Arg Ser Asp Phe Glu Arg Ala Val Ala Ala Thr Asp Arg Val Glu
        1075                1080                1085
Ser Arg Leu His Glu Phe His Pro Gln Val Leu Glu Ser Ile Gln Glu
    1090                1095                1100
Ile Leu Ser Ile Val Gly Lys His Tyr Asp His Ser Gln Lys Ala Thr
1105                1110                1115                1120
Glu Asp Ile Lys Met Asp Leu Ser Ile Leu Pro Ser Thr Ile Pro Ser
                1125                1130                1135
Met Leu Pro Ala Leu Pro Pro Pro Glu Pro Glu Lys Tyr Asp Asp Thr
            1140                1145                1150
Arg Val Arg Glu Lys Leu Asp Ser Leu Leu Glu His Ala Lys Asn Asn
        1155                1160                1165
Lys Val Gln Glu Ala Leu Asp Ile Leu Val Glu Arg Val Thr Asn Asn
    1170                1175                1180
Gln Val His Glu Lys Leu Asp Gln Leu Leu Ser Gln Thr Thr Ser Thr
1185                1190                1195                1200
Asn Ala Gln Val Tyr Asp Lys Leu Asn Glu Leu Leu Asp His Ala Thr
                1205                1210                1215
Asn Thr Asn Gly Pro Ile His Glu Lys Leu Asp Thr Leu Leu Asp His
            1220                1225                1230
Ala Lys Asn Thr Asp Gln Ser Val Thr His Met Met Lys Leu Asp Glu
        1235                1240                1245
Met His Lys Asp Ile Met Glu Thr Ser Arg Lys Met Asn Glu Met Phe
    1250                1255                1260
Ala Ala Gln Ser Ala Leu Val Ala Glu Asn Thr Glu Arg Arg Arg Arg
1265                1270                1275                1280
Glu Ala Glu Glu Ala Ala Ile Ala Leu Glu Arg Arg Asn Ala Gln Lys
                1285                1290                1295
Glu Gln Val Glu Ala Glu Ile Val Thr Leu Asn Glu Glu Lys Thr Leu
            1300                1305                1310
Phe
```

<210> 39224
<211> 399
<212> PRT
<213> A.fumigatus

<400> 39224

```
Val Val Ser Leu Leu Asn Trp Leu Asn Phe Leu Lys Gly His Ala Trp
1               5                  10                  15
Ser Ala Glu Gln Cys Val Ile Gly Leu Leu Glu Gln Thr Leu Val Val
            20                  25                  30
Arg Phe Asp Phe Gln Leu Pro Thr Arg Ala Gln Ser Ala Leu Ser Arg
        35                  40                  45
```

```
Leu Met Asp Trp Ser Arg Asp Gly Gly Ser Trp His Thr Leu Thr His
    50                  55                  60
Trp Ile Leu Ser Ala Ser Trp Pro Lys Met Pro Arg Arg Leu Ala Met
65                  70                  75                  80
Tyr Ser Val Arg Phe Ser Ala Pro Pro Cys Leu Lys Ile Cys Ala Leu
                85                  90                  95
Val Leu Glu Ser Asn Cys Ser Asp Ser Gly Ile Val Asn Arg His Asp
            100                 105                 110
Pro Arg Asp Pro Thr Asn Leu Ser Pro Arg Ser Arg Ser Arg Ile Ala
        115                 120                 125
Ser His Leu Gln Gln Pro Ala Leu Leu Ser Arg Met Thr Ser Ser Leu
    130                 135                 140
Arg Ile Gly Val Pro Ile Glu Tyr Asn Ile Ser Glu Leu Ser Pro Ser
145                 150                 155                 160
Val Arg Arg Ala Trp Ala Leu Ser Ile Ala Phe Leu Arg Glu Gln Gly
                165                 170                 175
His Thr Ile His Pro Val Ser Leu Pro Thr Thr Lys Leu Ala Leu Ser
            180                 185                 190
Ala Tyr Tyr Val Leu Ala Pro Ala Glu Ala Ser Ser Asn Leu Ala Lys
        195                 200                 205
Tyr Asp Gly Ile Arg Tyr Gly Ser Arg Cys Asn Ser Pro Asp Ser Gly
    210                 215                 220
Gly Gln Pro Glu Ser Tyr Leu Tyr Ala Lys Thr Arg Gly Asp Gly Phe
225                 230                 235                 240
Gly Leu Glu Val Lys Arg Arg Ile Leu Leu Gly Ala Phe Ser Leu Ser
                245                 250                 255
Ala Asp Ala Ile Asn Asn Tyr Phe Ile Gln Ala Gln Arg Val Arg Arg
            260                 265                 270
Leu Val Gln His Asp Phe Asn Ala Val Phe Arg Ala Glu Gln Pro Ile
        275                 280                 285
Ser Pro Ser Arg Gln Lys Gly Asp Thr Glu Leu Lys Ser Lys Gln Ala
    290                 295                 300
Glu Val Asp Val Leu Ile Cys Pro Thr Ala Pro Ser Cys Pro Pro Gln
305                 310                 315                 320
Leu Ala Asp Leu Val Glu Thr Asp Ser Ile Phe Ser Ser Leu Asn Ala
                325                 330                 335
Tyr Thr Asn Asp Val Phe Thr Val Pro Ala Ser Leu Ala Gly Leu Pro
            340                 345                 350
Ala Ala Ser Val Pro Val Arg Val Asn Cys Arg Asp Glu Gly Ser Ser
        355                 360                 365
Asp Ala Asp Leu Ala Gly Ile Gln Ile Ile Gly Gln Tyr Gly Asp Asp
    370                 375                 380
Glu Leu Val Leu Lys Val Ser Glu Ser Leu Glu Gly Lys Ile Phe
385                 390                 395
```

<210> 39225
<211> 81
<212> PRT
<213> A.fumigatus

<400> 39225

```
Thr Val Arg Tyr Arg Ala Leu Gly Thr Asp Thr Gly Gly Ser Val Arg
1               5                   10                  15
Leu Pro Ala Ala Tyr Thr Gly Thr Val Gly Phe Lys Pro Ser Tyr Gly
            20                  25                  30
Leu Val Ser Arg Trp Gly Val Val Ala Tyr Ala Asn Ser Leu Asp Thr
```

```
        35                  40                  45
Val Gly Ile Leu Ala Lys Asn Ala Ser Thr Ala Arg Asp Val Phe Arg
    50                  55                  60
Thr Leu Leu Cys Ala Ser Met Ser Gln Asp Leu Cys Ser Cys Ile Gly
65                  70                  75                  80
Ile
```

<210> 39226
<211> 624
<212> PRT
<213> A.fumigatus

<400> 39226

```
Thr Val Ile Asp Val His Met Ser Ser Ile Gln Pro Val Gly Ser Ser
1               5                  10                  15
Gly Pro Ser Ser Asn Ile Asn Ser Pro Thr Leu Pro Pro Gly Thr Ala
            20                  25                  30
Pro Phe Phe Ser Gly Thr Val Thr Gly Gln Asn Ala Arg Ser Ser Pro
        35                  40                  45
Ala Pro Pro Ser Asn Ala Ser Val Gln Thr Asp Gly Thr Arg Ser Lys
    50                  55                  60
Arg Asn Lys Arg Asp Ser Arg Lys Lys Arg Glu Ala Lys Gly Leu Asp
65                  70                  75                  80
Gln Glu Ser Ile Ala Pro Lys Lys Lys Ala Ala Val Ala Pro Asn Ser
                85                  90                  95
Ala Leu Pro Ser Ser Asp Ile Ser Ile Leu Arg Pro Leu Leu Leu Ala
            100                 105                 110
Glu Pro Arg Ala Ser Asp Leu Leu Pro Pro Gln Pro Arg Gln Leu Ser
        115                 120                 125
Phe Val Ser Arg Lys Thr Ser Asp Val Leu Gly Gln Ser Trp Asp Phe
    130                 135                 140
Tyr Glu Val Val Asp Lys Leu Thr Asn Lys Asn Gly Phe Arg Tyr Ser
145                 150                 155                 160
Tyr Ala Ile Ala Asp Pro Gly Phe Pro His Ile Lys Tyr Arg Gln Thr
                165                 170                 175
Asp Val Pro Pro Tyr His Ala Arg Phe Ser Phe Glu Asp Ser Pro Ala
            180                 185                 190
Ala Ile Phe Phe Ser Glu Asp Ala Arg Ala Val Thr Ala Ser Ser Ala
        195                 200                 205
Trp His Thr Ala Arg Ala Asn Val Cys Ala Arg Glu Gly Ala Tyr Tyr
    210                 215                 220
Tyr Glu Ala Arg Val Ile Asn Gly Ile Pro Asn Asn Ser Gln Ser Ile
225                 230                 235                 240
Ser Ala Asn Glu Ser Ser His Arg Thr Pro Lys Gly His Val Arg Leu
                245                 250                 255
Gly Phe Ala Arg Arg Glu Ala Asp Leu Asp Ala Asn Val Gly Val Asp
            260                 265                 270
Cys Tyr Gly Tyr Gly Ile Arg Asp Val Asn Gly Glu Val Val Asn Arg
        275                 280                 285
Met Arg Cys Glu Tyr Phe Phe Pro Lys Gly Glu Ser Ile Arg Glu Gly
    290                 295                 300
Asp Val Ile Gly Met Leu Ile Thr Leu Pro Pro Leu Ser Leu His Lys
305                 310                 315                 320
Lys Val Val Glu Gly Thr Tyr Asp Pro Ala Val Asp Gly Asp Gly Thr
                325                 330                 335
```

```
Ser Pro Thr Ser Glu Ala His Thr Ser Thr Asn Leu Ile Arg Asp Arg
            340                 345                 350
Ile Pro Phe His Tyr Lys Ser Asp Phe Cys Trp Gln Gln Ser Asn Val
        355                 360                 365
Phe Ser Thr Lys His Leu Arg Asp Tyr Ala Phe Asn Leu Lys Glu Thr
    370                 375                 380
Pro Thr Phe Gly Pro Pro Ser Pro Phe Asn Ser Glu Asp Pro Ser Leu
385                 390                 395                 400
Arg Thr Leu Pro Gly Ser Ser Ile Thr Ile Phe Lys Asn Gly Glu Lys
                405                 410                 415
Met Gly Thr Pro Phe Lys Glu Leu Tyr Ala Phe Leu Pro Pro Ala Ser
            420                 425                 430
Arg Leu Ala Asn Gly Thr Asn Asn Leu Gly Ile Gly Glu Arg Glu Asn
        435                 440                 445
Ala Asp Asp Gly Met Ile Gly Tyr Tyr Pro Ala Val Ser Cys Tyr Gly
    450                 455                 460
Gly Gly Ala Val Glu Cys Arg Phe Glu Gly Pro Trp Trp Val Gly Pro
465                 470                 475                 480
Pro Ser His Ala Asp Asn Gly Glu Pro Val Arg Gly Ile Gly Glu Arg
                485                 490                 495
Phe Asn Glu Gln Ile Val Glu Asp Val Val Ala Asp Ile Val Asp Glu
            500                 505                 510
Val Glu Ala Met Leu Ile Trp Gly Gly Val Asp Gly Asp Val Val Gly
        515                 520                 525
Asn Ala Glu Val Asp Ser Ala Gly Ala Gly Ala Val Gly Gly Ser Glu
    530                 535                 540
Val Leu Lys Gly Gly Val Gly Ala Ala Phe Asp Pro Arg Leu Asp Ser
545                 550                 555                 560
Val Pro Gly Ala Ala Glu Phe Ala Asp Thr Glu Asn Ile Ser Asn Gly
                565                 570                 575
Leu Glu Ala Gly Val Thr Asp Ala Asp Ala Gly His Leu Thr Thr Glu
            580                 585                 590
Asp Thr Leu Ser Val Gly His Glu Gly Ser Pro Asn Pro Ala Thr Pro
        595                 600                 605
Ser Ala Pro Leu Glu Asn Thr Val Pro Thr Glu Asp Val Glu Met Ser
    610                 615                 620
```

<210> 39227
<211> 130
<212> PRT
<213> A.fumigatus

<400> 39227

```
Asp Ser Tyr Leu Pro Arg Arg Arg Glu Asp Leu Leu His Thr Arg Ala
1               5                   10                  15
Glu Ser Lys Arg Val Ala Ala Leu Phe Leu Arg Pro Pro Leu Cys Arg
            20                  25                  30
Tyr Pro Cys Gln Leu Arg Cys Arg Val Leu Val Thr Pro Asn Ser His
        35                  40                  45
Leu Asp Pro Leu Ile Gly Leu Arg Ala Val Thr Asp Leu Lys Arg Val
    50                  55                  60
His Phe Cys Thr Ala Ile Gln Met Ala Ser Val Tyr Gly Asp Leu Arg
65                  70                  75                  80
His Leu Leu Pro Asn Asn Tyr Lys Arg Leu Ile Thr Ala Trp Leu Glu
                85                  90                  95
Glu Asp Cys Pro Ser Phe Asp Tyr Gly Gly Phe Val Val Gly Glu Ser
```

```
            100                 105                 110
Glu Gly Glu Ala Arg Leu Leu Gly Lys Ser Lys Val Cys Arg Trp Asp
        115                 120                 125
Ala Ser
    130
```

<210> 39228
<211> 248
<212> PRT
<213> A.fumigatus

<400> 39228

```
Trp Leu Ser Ala Arg Arg Val Glu Trp His Val Lys Glu Gly Glu Ser
1               5                  10                  15
Ile Asp Pro Ile Lys His Cys Ala Thr Val Arg Gly Pro Ile Arg Gln
            20                  25                  30
Ile Leu Leu Gly Glu Arg Val Ala Leu Asn Ile Leu Ala Arg Cys Ser
        35                  40                  45
Gly Ile Ala Thr Lys Ser Thr Thr Leu Val Ala Ala Leu Arg Ala His
    50                  55                  60
Gly Trp Gln Gly Thr Leu Ala Gly Thr Arg Lys Thr Thr Pro Gly Phe
65                  70                  75                  80
Arg Val Val Glu Lys Tyr Gly Leu Leu Val Gly Gly Ala Asp Pro His
                85                  90                  95
Arg His Asp Leu Ser Ser Met Thr Met Leu Lys Asp Asn His Val Trp
            100                 105                 110
Ala Cys Ala Asn Asn Arg Ser Ala Ala Asp Gly Gly Ser Gly Ser Ala
        115                 120                 125
Asp Thr Gln Ser Ile Ala Ala Ala Ile Pro Arg Ala Val Gln Ala Ala
    130                 135                 140
Lys Ala Ala Gly Gly Phe Ser Thr Lys Val Glu Val Glu Cys Arg Ser
145                 150                 155                 160
Leu Glu Glu Ala Asn Ala Ala Ile Asp Ala Gly Ala Asp Val Ile Met
                165                 170                 175
Leu Asp Asn Phe Thr Pro Glu Gly Val Arg Asp Ala Ala Arg Gln Leu
            180                 185                 190
Lys Gln Asp Trp Ala Gly Lys Gln Lys Ser Phe Leu Val Glu Val Ser
        195                 200                 205
Gly Gly Leu Thr Glu Ala Asn Ala Ala Ala Tyr Ala Cys Pro Asp Val
    210                 215                 220
Asp Ile Leu Ser Thr Ser Ser Ile His Gln Gly Thr Pro Ile Val Asp
225                 230                 235                 240
Phe Ser Leu Lys Val Ser Leu Arg
                245
```

<210> 39229
<211> 844
<212> PRT
<213> A.fumigatus

<400> 39229

```
Leu Leu Arg Arg Gly Asn Ala Glu Leu Arg Arg Glu Val Ser Ala Gln
1               5                  10                  15
Thr Ser Met Leu Thr Phe Arg Asn Lys Glu Lys Glu Arg Leu Tyr Gln
            20                  25                  30
Glu Ile Glu Glu Leu Lys Leu Gly Gln Arg Arg Asp Gly Val Arg Ser
```

```
        35                  40                  45
Val Ala Gly Asp Ser Ile Phe Asp Arg Ser Ala Ser Arg Ala Gln Gly
    50                  55                  60
Arg Ser Ser Ser Arg Ala Ser Asp Gly Thr Gly Pro Ser Arg Ser Asp
65                  70                  75                  80
Asp Ala Glu Arg Glu Asp Leu Glu Gln Arg Ile Asp Gln Leu Arg Asp
                85                  90                  95
Gln Val Ser Ala Leu Lys Leu Glu Asn Gln Thr Ile Arg Ala Glu Leu
            100                 105                 110
Glu Glu Arg Ile Ala Glu Tyr Asp Ala Leu Asp Lys Gln Tyr Gln Ala
        115                 120                 125
Asp Val Asp Gly Ala Asp Glu Met Phe Asn Ala Leu His Gln Glu Arg
    130                 135                 140
Asp Glu Ala Glu Arg Lys Met Asn Asp Cys Leu Val Asn Met Gln Ile
145                 150                 155                 160
Met Asp Ala Gln Tyr Thr Glu Asp Ile Glu Asn Leu Glu Glu Glu Val
                165                 170                 175
Arg Arg Lys Thr Glu Glu Cys Gly Arg Leu Glu Glu Glu Leu Arg Asn
            180                 185                 190
Gln Asp Glu Asn Leu Arg Ala Leu Gln Ala Glu Met Arg Ser Ala Ser
        195                 200                 205
Glu Gly Ile Ile Arg Leu Glu Glu Asp Ala Gln Thr Asn Leu Gln Arg
    210                 215                 220
Tyr Glu Lys Val Gln Arg Glu Leu Gln Asp Cys Asn Arg Glu Met Glu
225                 230                 235                 240
Ala Leu Glu Lys Ser Leu Tyr Glu Ala Asn Thr Lys Val Gln Arg Leu
                245                 250                 255
Thr Val Gln Ile Glu Ser Ser Gln Asn Glu Ile Ala Phe Leu Arg Glu
            260                 265                 270
Glu Gln Asp Gly Asp Lys Ile Arg Ile Gly Asp Leu Glu Ser Glu Leu
        275                 280                 285
Lys Thr Cys Gln Met Ser Leu Gln Ser Glu Arg Asp Lys Val Lys Asp
    290                 295                 300
Leu Glu Ser Arg Leu Ala Glu Glu Arg His Gln Arg Glu Val Val Gly
305                 310                 315                 320
Thr Lys Glu Lys Gln Glu Val Gln Arg Ile Ile Asn Glu Leu Asn Arg
                325                 330                 335
Glu Ala Ser Ser Ala Arg Glu Glu Ala Arg Arg Leu Lys Lys Ser Leu
            340                 345                 350
Ser Ala Gln Glu Ile Glu Thr Ala Thr Trp Arg Glu Arg Leu Met Asp
        355                 360                 365
Leu Glu Asn Asn Leu Arg Glu Thr Leu Gly Asp Leu Thr Gly Ser Arg
    370                 375                 380
Ser Ser Leu Ile Ser Asn Ile Met Lys Leu Gln Lys Glu Leu Glu Ser
385                 390                 395                 400
Thr Ala Leu Glu Leu Glu Ser Val Arg Ser Lys Leu Asp Glu Lys Glu
                405                 410                 415
Thr Leu Leu Arg Asn Arg Asp Ala Leu Leu Glu Ser His Gly Leu Glu
            420                 425                 430
Ser Arg Lys Leu Ser Glu Leu Leu Glu Arg Glu Arg Gln Ala Arg Arg
        435                 440                 445
Ala Asp Lys Gln Ser Phe Glu Gln Ala Leu Lys Ser His His Gln Ala
    450                 455                 460
Ser Arg Thr Ile Thr Gln Asn Asn Ser Arg Ile Thr Glu Leu Glu Asn
465                 470                 475                 480
Ala Arg Ser Gln Asp Arg Lys Arg Phe Thr Ala Leu Glu Gln Gln Phe
```

```
                485                 490                 495
Lys Glu Gln Leu Asn Glu Arg Asn Ser Met Leu Leu Thr Met Trp Lys
            500                 505                 510
Arg Leu Ser Ala Met Cys Gly Pro Asp Trp Ala His Ser Asn Ser Leu
        515                 520                 525
Ile Asn Gly Asn Leu Pro Ser Gln Glu Val Ile Gly Asn Ile Leu Phe
    530                 535                 540
Trp Pro Gly Phe Ser Arg Asn Leu Leu Leu Ala Val Lys Thr Leu Glu
545                 550                 555                 560
Asn Val Ile Gly Gly Phe Lys Asn Arg Ile Lys Gly Val Glu Arg Asp
                565                 570                 575
Leu Thr Lys Gln Tyr Gln Asn Leu Glu His Ala Leu Gly Gln Arg Ile
            580                 585                 590
Lys Lys Leu Asp Arg Leu Glu Glu Ser Val Met Asn Leu Arg Ala Gln
        595                 600                 605
Gln His Ser Arg Gly Gln Ser Gly Met Ser Pro Glu Ile Ala Lys Leu
    610                 615                 620
Arg Gly Glu Asn Arg Leu Leu Lys Ala Glu Leu Asn Leu Leu Gln Ser
625                 630                 635                 640
His Ser Ser Arg Gly Pro Thr Ser Ala Ala Ala Val Ala Ala Gly Met
                645                 650                 655
Gly Gln Gly Ile Pro Arg Ser Pro Ser Arg Thr Leu Ser Thr Glu Ser
            660                 665                 670
Gly Thr Asp Ala Glu Ser Ala Leu Thr Arg His Arg Ser Val Ile Glu
        675                 680                 685
Lys Ser Ala Thr Pro His Leu Ser Arg Asn Ala His Arg Ser Ser Thr
    690                 695                 700
Thr Gly Ile Pro Gln Pro Ser Ser Asn Ala Pro Ala Asp Asp Gly Gly
705                 710                 715                 720
Ala Ile Val Pro Ser Ser His Ser Arg His Ala Ser Gly Asp Pro Val
                725                 730                 735
Ser Asn Glu Arg Trp Ile His Arg Leu Arg Glu Leu Glu Lys Arg Leu
            740                 745                 750
Lys Ala Glu Arg Glu Ala Arg Leu Leu Asp Arg Ser Gly Ala Arg Lys
        755                 760                 765
Arg Leu Glu Glu Arg Asp Ala Glu Asn Gln Arg Leu Arg Ala Gln Leu
    770                 775                 780
Glu Arg Gln Arg Met Arg Arg Gly Leu Ser Ala Glu Thr Ser Thr Asp
785                 790                 795                 800
Gly Asp Tyr Asp His Gly Arg Val Arg Lys Ser Glu His Ser Asp Pro
                805                 810                 815
Ser Asn Asp Gly Asp Tyr Gly Arg Leu Arg Asn Glu Glu Leu Ser Ser
            820                 825                 830
Ser Glu Gly Glu Gly Ile Cys Val Asp Ile Glu Val
        835                 840
```

<210> 39230
<211> 67
<212> PRT
<213> A.fumigatus

<400> 39230

```
Asn Ile Tyr Ser Gln Thr Pro Met Thr Ser Ser Leu Ile Ser Ser Asp
1               5                   10                  15
Pro Trp Asn Val Ala Ser Tyr Ile Met Ile Ser Thr Trp Glu Leu Leu
            20                  25                  30
```

```
His Val Thr Val Glu Ile Glu Phe Leu Phe Tyr Thr Phe Glu Gln Ile
        35                  40                  45
Met Arg Pro Phe Arg Phe Val Met Tyr Val Leu Arg Ser Leu Ser Arg
    50                  55                  60
Tyr Lys Phe
65
```

<210> 39231
<211> 63
<212> PRT
<213> A.fumigatus

<400> 39231

```
Tyr Ser Arg Ser Leu Ser Asp Thr Pro Gly Cys Arg Asp Cys Pro Thr
1               5                   10                  15
Arg Ser Ser Leu Leu Pro Ile Phe Phe Leu Phe Glu Ala Leu Pro Lys
            20                  25                  30
Asp Leu His Gly Asp Thr Tyr Gly Ala Asp Ile Asp Ser Ser Gly Gln
        35                  40                  45
Ser Val Ser Ala Gly Val Met Asn His Ser Glu Thr Cys Met Ile
    50                  55                  60
```

<210> 39232
<211> 71
<212> PRT
<213> A.fumigatus

<400> 39232

```
Gly Ile Leu His Val Val Lys Ser Gly Ser Glu Arg Gly Pro Leu Ser
1               5                   10                  15
Leu Leu Ile Ile Lys Leu Pro Ala Asn Leu Val Glu Leu Asn Thr Val
            20                  25                  30
Ser Ile Gly Pro Met Leu Thr Val Trp Ser Asp Tyr Gly Ala Ser Leu
        35                  40                  45
Asn Thr Glu Leu Leu Ala Pro Gln Pro His Tyr Leu Pro Ile Asn Asp
    50                  55                  60
Asn Ile Ser Gly Asn Ser Val
65                  70
```

<210> 39233
<211> 88
<212> PRT
<213> A.fumigatus

<400> 39233

```
Leu Leu Leu Ser Asp Thr Ala Phe Arg Leu His Leu Gly Ser Leu Leu
1               5                   10                  15
Leu Trp Gly Ile Asn Ser Leu Glu Thr Gln Met Leu Asn Leu Pro Leu
            20                  25                  30
Lys His Pro Leu Leu Asn His Arg Leu Pro Val Ile His Leu Leu Asp
        35                  40                  45
Cys Ser Leu Ser Leu Ser Gly Ser Pro Asp Tyr Leu Pro Arg Leu Ser
    50                  55                  60
Lys Pro Arg Gly Ile Ile Leu Ala Ile Gly Leu Ser Gln Pro Ser His
65                  70                  75                  80
Lys Ser Gln Lys Arg Gly Asn Phe
```

85

<210> 39234
<211> 526
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (217)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39234
Leu His Gly Pro Phe Gln Pro Arg Gly Glu Asp Met Glu Arg Leu Gly
1 5 10 15
Ser Leu Gln Glu Lys Phe Tyr Ala Asn Gly Lys Ser Val Asp Gly Trp
20 25 30
Lys Pro Gln Asp Ile Glu Ile Tyr Lys Thr Leu Val Cys Gly Leu Leu
35 40 45
Ile Lys Cys Ala Asp Ile Ser Asn Val Ala Arg Pro Trp Asp Ile Ala
50 55 60
Glu Lys Trp Thr Arg Ile Leu Gln Glu Glu Phe Ala Asn Gln Gly Glu
65 70 75 80
Met Glu Arg Glu Val Gly Met Glu Thr Ala Leu Phe Gly Gly Pro Pro
85 90 95
Glu Leu Gly Asn Val Tyr Lys Leu Ala Thr Gly Gln Ile Gly Phe Met
100 105 110
Ser Ile Phe Ala Leu Pro Leu Phe Glu Gly Val Ser Asp Leu Leu Pro
115 120 125
Glu Leu Arg Phe Thr Val Glu His Ile Arg Thr Asn Gln Thr Arg Trp
130 135 140
His Phe Leu Ala Asp Met Glu Lys Arg Lys Gln Ser Leu Leu Asp Pro
145 150 155 160
Arg Phe Glu Gly Gly Leu Ser Pro Arg Ser Gln Ser Pro Ala Ala Ser
165 170 175
Phe Lys Gly Leu Arg Ala Pro Leu Asn Glu Ser Ser Ala Arg Ser Ala
180 185 190
Leu Asp Pro Asp Asp Pro Ala Thr Gln Arg Arg Glu Ala Thr Gly Asp
195 200 205
Tyr Phe Gly Thr Ala Glu Ser Ser Xaa Asn Asp Tyr Asn Glu Asn Thr
210 215 220
Ile Ser Pro Val Val Ser Pro Asp Thr Pro Gly Pro Ser Met Asp Ile
225 230 235 240
Thr Gly Ser Pro Ile Pro Val Arg Ala Phe Ser Glu Ile Leu Gln Cys
245 250 255
Leu Ser Pro Thr Ser Leu Arg His Arg Tyr Pro Ala Arg Phe Leu Thr
260 265 270
Pro Met Asp Pro Lys His Ala Gly Asp Phe Glu Arg Gln Thr Gly Arg
275 280 285
Asn Ser Arg Arg Ser Ser Glu Asp Ala Val Leu Ser Ala Val Ile Leu
290 295 300
Ala Asn Thr Ser Asp Asp Pro Asn Arg Ala Asn Ser Arg His Arg Ser
305 310 315 320
Gly Glu Ser Thr Glu Arg Glu Ala Glu Arg Pro Ser Ser Ser Arg Gln
325 330 335
Gly Pro Gln Gly His Arg Arg His His Ala Asn Thr Asn Ser Thr Gly

```
            340                 345                 350
Arg Gly Ser Gly Ala Pro Asn Ser Gln Arg Asn Ser Cys Thr Arg Thr
        355                 360                 365
His Ser Leu Ser Thr Tyr Ser Asn Thr Met Thr Pro Ile Ser Pro Ala
    370                 375                 380
Thr Asn Ala Thr Ser Phe Val Thr Val Asp Asp Arg Asp Glu Lys Gly
385                 390                 395                 400
His Ser Arg Glu His Ile Arg Asp Glu His Asp Glu Ser Asp Gly Ala
                405                 410                 415
Arg Pro Gly Ser Ser Lys Gln Tyr Ser Val Gly Glu Gly Arg Ser Glu
            420                 425                 430
Gly Asp Thr His Phe Ser Asp Thr Asn Thr Ser His Ser His Leu Asp
        435                 440                 445
Asp Gly Arg Lys Ser Pro Ile Thr Thr Phe Val Val Gly Asn Gly Ser
    450                 455                 460
Asn Ser Pro Ala His Ser Thr Thr Thr Thr Pro Ser Val Lys Asn Glu
465                 470                 475                 480
Ala His Pro Thr Trp Asp Asp Pro Thr Ala Gly Glu Gln Pro Pro Arg
                485                 490                 495
Arg Leu Pro Lys Arg Arg Ser Arg Leu Arg Leu Ala Phe Trp Lys Arg
            500                 505                 510
Lys Pro His His Ser His Gln His Glu Leu Ser Gly Glu Thr
        515                 520                 525
```

<210> 39235
<211> 232
<212> PRT
<213> A.fumigatus

<400> 39235

```
Glu Tyr Asn Pro Ser Ser Ile Ile Ser Val Ala Val Ala Ser Leu Ser
1               5                   10                  15
Leu Thr Ile Leu Thr Leu Phe Arg Phe Leu Phe Leu Thr Leu Leu Leu
            20                  25                  30
Thr Ile Pro Met Leu Leu Pro Gln Gly Pro Ile Cys Met Ala Gln Ile
        35                  40                  45
Pro Leu Trp Ile Asn His Ile Pro His Pro Thr Leu Glu His Leu Asp
    50                  55                  60
Leu Tyr Pro Ala Ser Ala Ser Gln Phe Pro Tyr Gln Thr Gln Pro Ala
65                  70                  75                  80
His Leu Ser Ser Ser Pro Arg Lys Glu Lys Arg Val His Thr Arg Lys
                85                  90                  95
Pro Thr Ile Asn Pro Pro Ile Pro Glu His Thr Leu Pro His Leu Arg
            100                 105                 110
Leu Arg Gln Thr Ser Asn Thr His Asp Lys Arg Ala Pro Arg Ala Arg
        115                 120                 125
His Lys Ser Asn Leu Ala Lys Thr Gly Arg Lys Arg Arg Glu Lys Phe
    130                 135                 140
Leu Gly Glu Leu Phe Ser Ile His Val Ser Ile Ala Leu Ala Ile Ser
145                 150                 155                 160
Met Val Leu Ala Leu Gly Pro Val Cys Leu Val Ser Gly Ile Val Cys
                165                 170                 175
Ile Leu Asn Pro Gly Glu Thr Arg Arg Lys Gly Gly Gly Gly Thr Tyr
            180                 185                 190
Ile Ser Gly Ser Glu His Pro Phe Thr Leu Arg Ala Val Phe Asp Cys
        195                 200                 205
```

```
Asp Ser Gly Gln Gly Cys Gly Cys Arg Cys Cys Cys Cys Gly Arg Gly
    210                 215                 220
Gly Arg Gly Ile Cys Gly Cys Ala
225                 230
```

<210> 39236
<211> 61
<212> PRT
<213> A.fumigatus

<400> 39236

```
Ile Asn Asn Ala Ile Pro Ala Ser Glu Asn Leu Val Gln Arg Asn Asp
1               5                   10                  15
Arg Thr Asn Ala Pro His Arg Thr Thr Pro Thr Ile Leu Lys His Asn
            20                  25                  30
His Lys Ser Pro Ala His His Asp His Asn Asn Ser Asn Asp Asn His
        35                  40                  45
Asn Pro Ala Pro Asn His Asn Gln Ile Leu His Ala Met
    50                  55                  60
```

<210> 39237
<211> 925
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (24),(37)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39237

```
Ala Arg Asn Gln Pro Thr Arg Gln Pro Gln Arg Asn Ser Gln Ala Ala
1               5                   10                  15
Glu Gln Ala Gln Pro Thr Thr Xaa Pro Gly Phe Gly Gln Leu Ala Phe
            20                  25                  30
Gly Gln Ser Pro Xaa Gly Ser Leu Ser Ala Met Gly Ser Ser Pro Phe
        35                  40                  45
Gly Lys Pro Ser Ala Val Pro Ala Phe Gly Ser Pro Ser Ala Leu Gly
    50                  55                  60
Ser Arg Gln Pro Ala Phe Gly Thr Pro Ser Ala Pro Ser Gly Pro Ser
65                  70                  75                  80
Phe Gly Ser Pro Ser Gln Ile Lys Pro Ser Phe Gly Thr Pro Ser Ala
                85                  90                  95
Leu Gly Arg Ala Thr Pro Gln Phe Gly Gln Ser Gly Phe Gly Ala Ser
            100                 105                 110
Ala Ala Pro Ser Phe Gly Gln Pro Ser Thr Pro Gly Lys Pro Leu Pro
        115                 120                 125
Phe Gly Thr Pro Ser Ala Ser Ala Gly Gly Gly Phe Gly Ser Phe Ala
    130                 135                 140
Asn Ala Gly Gly Phe Ser Ser Phe Ala Ala Ser Lys Pro Ala Thr Glu
145                 150                 155                 160
Ser Pro Phe Ala Lys Ala Ala Gly Glu Ser Pro Phe Gly Asn Pro Ala
                165                 170                 175
Thr Glu Ser Pro Phe Gly Lys Val Ser Thr Glu Ser Pro Phe Ala Lys
            180                 185                 190
Pro Ser Gly Pro Ser Ile Phe Gly Thr Gln Ala Gln Ser Gly Ser Ala
```

```
        195                 200                 205
Phe Thr Pro Gln Lys Ala Asp Glu Ser Lys Gly Val Phe Gly Ala Ser
    210                 215                 220
Gly Ser Phe Val Leu Gly Ser Thr Phe Lys Gly Asp Gly Thr Ala Val
225                 230                 235                 240
Asn Asp Gly Pro Lys Pro Asp Lys Ala Ser Gly Leu Phe Ser Phe Gly
                245                 250                 255
Thr Ser Leu Asp Asp Met Ile Ser Thr Pro Asp Lys Thr Ser Pro Pro
            260                 265                 270
Thr Glu Ser Met Asp Asp Ala Glu Asp Gln Pro Ala Val Thr Gln Ser
        275                 280                 285
Ala Lys Ala Ala Ala Lys Glu Ala Pro Thr Ser Val Phe Gly Ala Pro
    290                 295                 300
Ser Lys Leu Asp Thr Ser Lys Thr Thr Ser Ile Phe Gly Ser Gln Thr
305                 310                 315                 320
Gln Pro Gln Pro Ala Thr Gln Ala Asn Lys Ser Pro Phe Ser Leu Phe
                325                 330                 335
Gly Asn Val Ala Ala Glu Lys Gln Val Thr Ser Pro Leu Ser Pro Gln
            340                 345                 350
Ser Gly Lys Thr Thr Ile Ala Ser Leu Thr Pro Lys Ala Glu Asn Ile
        355                 360                 365
Ser Ile Ala Glu Pro Pro Leu Pro Pro Glu Pro Thr Ser Arg Ala Ala
    370                 375                 380
Tyr Gly Pro Gly Asp Thr Ser Ala Ser Ser Asn Val Ser Lys Ser Ser
385                 390                 395                 400
Val Glu Asp Val Lys Leu Glu Ala Pro Leu Pro Pro Asp Phe Thr Ser
                405                 410                 415
Gly Ile Thr Gly Lys Ala Gly Lys Pro Ala Ala Glu Gly Ala Pro Leu
            420                 425                 430
Pro Pro Glu Pro Ala Pro Pro Glu Ser Pro Ala Ala Ser Asp Glu Glu
        435                 440                 445
Ala Gly Pro Leu Pro Glu Glu Ser Asp Val Asp Glu Ser Glu Lys Glu
    450                 455                 460
Pro Ser Glu Gly Ala Asp Glu Ser Asp Phe Ala Asp Ser Gly Glu Glu
465                 470                 475                 480
Ile Thr His Glu Ile Glu Glu Glu Glu Glu Glu Pro Glu Ile Thr Gly
                485                 490                 495
Gln Thr Pro Lys Ile Ser Pro Glu Ser Ser Phe Gly Thr Gly Ile Ser
            500                 505                 510
Glu Gln Ser Pro Ala Gly Gly Leu Phe Ser Arg Ile Ser Arg Pro Gly
        515                 520                 525
Gln Gln Gln Arg Pro Arg Gln Leu Leu Gly Glu Val Ala Lys Pro Met
    530                 535                 540
Phe Gln Pro Thr Thr His Val Asp Arg Glu Pro Pro Arg Ser Pro Ser
545                 550                 555                 560
Pro Val Arg Gly Ser Ile Pro Lys Thr Leu Val Lys Pro Gln Ile His
                565                 570                 575
Lys Ser Thr Ser Ala Pro Gln Ile Pro Gly Ser Thr Leu Ala Ala Arg
            580                 585                 590
Lys Ala Ala Leu Thr Glu Ala Ala Leu Gly Asn Gln Arg Leu Arg Arg
        595                 600                 605
Glu Ser Asp Arg Thr Ala Arg Glu Gln Gln Ala Arg Leu Lys Ile Gln
    610                 615                 620
Ala Gln Lys Glu Glu Glu Glu Ala Leu Ser Leu Ser Asp Asp Asp Glu
625                 630                 635                 640
Asp Glu Arg Leu Arg Ala Asp Leu Ala Gln Pro Leu Glu Pro Val Pro
```

```
                645                 650                 655
Thr Leu Asp Pro Phe Leu Pro His Gln Asp Tyr Met Gly Gln Thr Thr
            660                 665                 670
Lys Pro Gly Ile Pro Gly Gln Ile Glu Arg Leu Tyr Arg Asp Ile Asn
        675                 680                 685
Ser Met Ile Asp Thr Leu Gly Ile Asn Ser Arg Ala Leu Ser Ser Phe
    690                 695                 700
Leu Leu Tyr Gln Gln Ser Pro Arg Asp Ser Glu Arg Trp Ile Gln Thr
705                 710                 715                 720
Leu Lys Thr Asp His Ser Ala Asp Val Leu Asp Glu Glu Val Leu Leu
                725                 730                 735
Gly Glu Ile Glu Lys Leu Asp Asp Ala Val Leu Met Leu Ala Asn Ser
            740                 745                 750
Leu Gln Glu Gln Arg Val Gln Arg Val Glu Glu Lys Leu Glu Thr Cys
        755                 760                 765
Arg Glu Leu Leu Ser Lys Asp Ile Leu Thr Leu Arg Gly Gln Cys Ala
    770                 775                 780
Ser Ile Arg Lys Thr Leu Asp Ala His Thr Asp Thr Ala Ala Ile Leu
785                 790                 795                 800
Ser Ala Pro Leu Ser Ala Glu Gln Ala Asn Leu Gln Gln Asp Leu Arg
                805                 810                 815
Ser Ala Phe Thr Asn Leu Gln Ala Ser Leu Ala Asp Leu Glu Ser Ala
            820                 825                 830
Val Ser Ile Leu Arg Ala Lys Ile Ala Glu Ala Pro Arg Pro Asp Ser
        835                 840                 845
Ser Arg Gln Ser Thr Lys Arg Pro Thr Val Glu Ala Val Thr Ser Thr
    850                 855                 860
Ile Ala Thr Met Met Asn Met Ala Glu Ser Lys Ser Ser Asp Ile Asp
865                 870                 875                 880
Val Leu Glu Ile Gln Leu Lys Lys Leu Gly Ile Asp Thr Thr Gly Pro
                885                 890                 895
Pro Thr Ser Arg Glu Gly Ser Pro Phe Ala Thr Pro Lys Lys Gly Val
            900                 905                 910
Gly Lys Ile Ser Tyr Asp Ala Trp Leu Ser Gly Val Tyr
        915                 920                 925
```

<210> 39238
<211> 211
<212> PRT
<213> A.fumigatus

<400> 39238

```
Arg Gly Arg Cys Cys Cys Pro Gly Leu Glu Met Arg Glu Asn Asn Pro
1               5                   10                  15
Pro Ala Gly Leu Cys Ser Glu Met Pro Val Pro Asn Glu Leu Ser Gly
            20                  25                  30
Glu Ile Phe Gly Val Trp Pro Val Ile Ser Gly Ser Ser Ser Ser Ser
        35                  40                  45
Ser Ile Ser Trp Val Ile Ser Ser Pro Leu Ser Ala Lys Ser Asp Ser
    50                  55                  60
Ser Ala Pro Ser Leu Gly Ser Phe Ser Asp Ser Ser Thr Ser Asp Ser
65                  70                  75                  80
Ser Gly Ser Gly Pro Ala Ser Ser Ser Asp Ala Ala Gly Asp Ser Gly
                85                  90                  95
Gly Ala Gly Ser Gly Gly Asn Gly Ala Pro Ser Ala Ala Gly Phe Pro
            100                 105                 110
```

```
Ala Leu Pro Val Ile Pro Leu Val Lys Ser Gly Gly Ser Gly Ala Ser
        115                 120                 125
Ser Leu Thr Ser Ser Thr Glu Leu Leu Glu Thr Leu Glu Asp Ala Glu
    130                 135                 140
Val Ser Pro Gly Pro Tyr Ala Ala Leu Leu Val Gly Ser Gly Gly Arg
145                 150                 155                 160
Gly Gly Ser Ala Ile Glu Met Phe Ser Ala Leu Gly Val Lys Leu Ala
                165                 170                 175
Ile Val Val Phe Pro Asp Cys Gly Asp Arg Gly Leu Val Thr Cys Phe
            180                 185                 190
Ser Ala Ala Thr Phe Pro Asn Lys Glu Lys Gly Asp Leu Leu Ala Cys
        195                 200                 205
Val Ala Gly
    210
```

<210> 39239
<211> 385
<212> PRT
<213> A.fumigatus

<400> 39239

```
Ile Ile Ala Gln Leu Cys Gly Glu Lys Glu Val Leu Ala Gln Val Lys
1               5                   10                  15
Leu Ser Phe Lys Ser Thr Ser Gly Ala Lys Met Val Ala Thr Arg Ser
            20                  25                  30
Leu Gln Leu Thr Val Lys Lys Thr Thr Arg Gln Gln Lys Thr Leu Glu
        35                  40                  45
Gly Gln Leu Leu Met Val Lys Asp Gly Glu Arg Thr Ala Ile Ser Ser
    50                  55                  60
Arg Val Ala Glu Leu Asp Gln Ile Met Pro Gln Tyr Leu Gly Val Ser
65                  70                  75                  80
Arg Ala Val Leu Asp Ser Val Ile Phe Cys His Gln Asp Glu Ser Leu
                85                  90                  95
Trp Pro Met Ser Glu Pro Ser Val Leu Lys Lys Lys Phe Asp Glu Ile
            100                 105                 110
Phe Glu Ala Met Lys Tyr Thr Lys Ala Ile Asp Asn Ile Lys Ala Phe
        115                 120                 125
Arg Lys Lys Gln Asn Glu Glu Leu Ala Lys Tyr Lys Ile Met Glu Gln
    130                 135                 140
His Ala Lys Glu Asp Lys Glu Lys Ala Asp Arg Ala Glu Lys Arg Ser
145                 150                 155                 160
Ile Lys Leu Gln Asp Glu Ile Glu Ser Leu Arg Ala Glu Thr His Gln
                165                 170                 175
Leu Ser Gln Glu Met Arg Arg Val Ala Glu Leu Ala Asp Lys Ala Trp
            180                 185                 190
Lys Glu Ser Glu Ser Tyr Ala Gln Ile Leu Gly Thr Leu Glu Gly Lys
        195                 200                 205
Arg Ile Glu Ala Lys Ser Leu Gln Ser Thr Ile Asp Asn Leu Lys Arg
    210                 215                 220
His Leu Val Glu Leu Asp Asp Pro Asp Glu Trp Leu Gln Ser Asn Leu
225                 230                 235                 240
Glu Gln Phe Glu Ser Lys Gln Leu Gln Tyr Gln Gln Gln Glu Glu Ala
                245                 250                 255
Gln Lys Glu Asn Tyr Met Glu Ile Lys Asp Arg Ile Glu Gln Ala Arg
            260                 265                 270
Gln Lys Leu Gly Val Lys Gln Ala Glu Tyr Gly Lys Tyr Glu Asn Asp
```

```
        275                 280                 285
Lys Ala Asn Phe Glu Arg Gln Val Glu Arg Arg Gln Arg Met Thr Arg
    290                 295                 300
Glu Ile Ala Arg Ser His Asn Ile Arg Gly Phe Asp Asn Ile Gln Asp
305                 310                 315                 320
Gln Ser Asp Ile Asp Asp Phe Met Arg Lys Ile Arg Lys Leu Leu Lys
                325                 330                 335
Glu Gln Asn Gln Ala Leu Glu Arg Val Lys Arg Glu Ala Gln Thr Glu
            340                 345                 350
Leu Arg Glu Val Gln Ser Thr Leu Asn Glu Ile Gly Gln Arg Lys Ser
        355                 360                 365
Ala Leu Gln Glu Ser Lys Asn Ala Ala Lys Arg Gln Ile Gly Ala Asp
    370                 375                 380
Asp
385
```

<210> 39240
<211> 347
<212> PRT
<213> A.fumigatus

```
<400> 39240
Ile Glu Ala Thr Lys Arg Ala Gly Asp Phe Ala Arg Leu Asp His Leu
1               5                   10                  15
Lys Lys Glu Leu Lys Glu Arg Glu Arg Ser Leu Glu Thr Met Lys Ala
            20                  25                  30
Ala His Gly Glu Arg Leu Ala Lys Tyr Ile Gly Ala Asn Trp Asn Pro
        35                  40                  45
Ala Thr Leu Glu Gln Glu Phe Gln Arg Val Leu Glu Glu Glu Thr Arg
    50                  55                  60
Asn Val Ser Asn Ala Glu Ser Gln Arg Asp Gly Val Asn Arg Glu Leu
65                  70                  75                  80
Glu Gln Val Glu Phe Asn Leu Lys Thr Ser Lys Lys Thr Leu Ala Gln
                85                  90                  95
Arg Gln Lys Glu Leu Asn Ser Cys Ala Thr Glu Ile Arg Glu Ala Ile
            100                 105                 110
Asn Glu Glu Pro Glu Glu Tyr Pro Asp Ala Leu Lys Gln Arg Gln Ala
        115                 120                 125
Gln Leu Asp Val Ala Arg Arg Asp Ala Glu Gln Ser Ala Gly Leu Gly
    130                 135                 140
Asp Tyr Phe Met Arg Cys Leu Glu Thr Ala Lys Gln Val Lys Ala Cys
145                 150                 155                 160
Arg Leu Cys Gln Arg Ala Phe Arg Ala Asp Ala Glu Phe Thr Val Phe
                165                 170                 175
Gln Lys Arg Leu Glu Gly Leu Val Lys Lys Ala Gln Ile Gly Val Glu
            180                 185                 190
Glu Glu Asp Val Glu Arg Phe Glu Ala Glu Leu Asp Ala Ala Arg Ala
        195                 200                 205
Val Ser Thr Ala Tyr Asp Thr Trp Thr Arg Leu Ser Lys Thr Glu Ile
    210                 215                 220
Pro Asp Leu Glu Lys Glu Glu Asp Gln Tyr Ala Leu Gln Arg Asp Glu
225                 230                 235                 240
Leu Leu Asn Gln Leu Glu Asn His Asp Lys Ile Val Ser Glu Lys Ile
                245                 250                 255
Glu Lys Lys Arg Asp Val Glu Ala Leu Ser Lys Thr Val Asn Thr Ile
            260                 265                 270
```

```
Val Arg Tyr Glu Ser Glu Ile Lys Thr Ile Arg Ser Gln Ile Gln Asp
        275                 280                 285
Leu Ser Ser Asn Gln Gln Asp Asn Thr Ala Thr Arg Thr Leu Glu Asp
    290                 295                 300
Ile Gln Glu Glu Ile Ala Gly Ile Gly Asp Lys Thr Arg Ala Leu Lys
305                 310                 315                 320
Lys Thr Leu Ser Lys Leu Ile Asn Asp Arg Glu Gln Ala Arg Thr Glu
                325                 330                 335
Met Asn Asn Leu Glu Leu Gln Leu Pro Arg Cys
            340                 345
```

<210> 39241
<211> 453
<212> PRT
<213> A.fumigatus

<400> 39241

```
Asn Cys Ser Ser Arg Asp Ala Arg Ser Lys Leu Asp Asn Val Lys Phe
1               5                   10                  15
Gln Leu Glu Arg Lys Ser Asp Leu Leu Ala Arg Ile Glu Glu Tyr Lys
            20                  25                  30
Asn Phe Asn Asn Gln Gln Arg Glu Ala Ile Thr Lys Ala Asp Arg Asp
        35                  40                  45
Ile Glu Glu Leu Thr Pro Glu Leu Leu Lys Tyr Gln Ala Gln Tyr Asp
    50                  55                  60
Asp Ile Ser Gln Arg Val Glu Ala Arg Glu Arg Glu Met Gln Gln Gly
65                  70                  75                  80
Ile Ser Gln Leu Ser Glu Arg Ile Arg Gln Leu Asp Leu Ala Thr Glu
                85                  90                  95
Glu Ile Asp Ser Tyr Asn Glu Arg Gly Gly Pro Ser Gln Leu Glu Arg
            100                 105                 110
Ser Arg Arg Glu Leu Gln Thr Ile Glu Ala Glu Ile Ser Gln Leu Glu
        115                 120                 125
Ala Glu Gln Ala Asn Ile Thr Lys Glu Ile Asn Lys Ile Ser Ala Gln
    130                 135                 140
Leu Lys Asp Ser Glu Asn Thr Lys Arg Gln Tyr Ser Asp Asn Leu Thr
145                 150                 155                 160
Tyr Arg Gln Ala Thr Arg Ala Leu Ala Glu Val Ser Ala Glu Ile Glu
                165                 170                 175
Asn Leu Ala Ala Gln Asn Ala Glu Val Asp Arg Ser Arg Phe Lys Glu
            180                 185                 190
Glu Ser Glu Arg Arg Thr Arg Glu His Asn Ala Leu Ala Ala Lys Gln
        195                 200                 205
Ala Ser Lys Met Gly Glu Met Lys Ser Lys Asp Asp Gln Leu Met Gln
    210                 215                 220
Leu Leu Ala Asp Trp Asn Thr Asp Tyr Lys Asp Ala Ala Ser Lys Tyr
225                 230                 235                 240
Lys Glu Ala His Ile Lys Val Glu Thr Thr Lys Ala Ala Val Asp Asp
                245                 250                 255
Leu Ala Arg Tyr Gly Gly Ala Leu Asp Lys Ala Ile Met Lys Tyr His
            260                 265                 270
Ser Leu Lys Met Glu Glu Ile Asn Ala Ile Ile Gly Glu Leu Trp Gln
        275                 280                 285
Lys Thr Tyr Arg Gly Thr Asp Val Asp Thr Ile Leu Ile Arg Ser Asp
    290                 295                 300
Asn Glu Asn Ala Gln Gly Asn Arg Ser Tyr Asn Tyr Arg Val Cys Met
```

```
305                 310                 315                 320
Val Lys Ser Gly Ala Glu Met Asp Met Arg Gly Arg Cys Ser Ala Gly
                325                 330                 335
Gln Lys Val Leu Ala Ser Ile Ile Ile Arg Leu Ala Pro Ala Glu Gly
            340                 345                 350
Phe Gly Val Asp Cys Gly Leu Met Ala Leu Asp Gly Pro Thr Thr Asn
        355                 360                 365
Leu Asp Arg Asp Asn Ile Arg Ser Leu Ala Glu Ser Val His Asp Ile
    370                 375                 380
Ile Arg Ala Arg Glu Gln Gln Ala Asn Phe Gln Leu Ile Val Ile Thr
385                 390                 395                 400
His Asp Glu Glu Phe Leu Arg His Met Gln Cys Gly Asp Phe Ser Asp
                405                 410                 415
Tyr Tyr Tyr Arg Val Ser Arg Asn Glu Lys Gln Asn Pro Ile Ile Glu
            420                 425                 430
Arg Gln Ser Ile Ala Glu Val Ser Tyr Asp Asp Leu Arg Cys Phe Gln
        435                 440                 445
Ile Ala Leu Thr Tyr
    450
```

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<210> 39242
<211> 292
<212> PRT
<213> A.fumigatus

<400> 39242

```
Asp Phe Asp Arg Met Cys Glu Glu Val Arg Glu Pro Ala Ile Gln Val
1               5                   10                  15
Pro Lys Ala Met Val Gly Thr Ile Val Leu Asn Phe Val Ala Gly Leu
            20                  25                  30
Gly Phe Leu Leu Pro Leu Thr Phe Val Leu Pro Asp Ile Thr Met Leu
        35                  40                  45
Val Asn Leu Ala Ser Gly Gln Pro Thr Pro Val Ile Leu Lys Asp Ala
    50                  55                  60
Leu Gly Ser Ser Thr Gly Ala Phe Leu Leu Leu Leu Pro Leu Leu Ile
65                  70                  75                  80
Leu Gly Val Ile Cys Gly Val Gly Cys Val Thr Ala Ala Ser Arg Cys
                85                  90                  95
Thr Trp Ala Phe Ala Arg Asp Gly Gly Ile Pro Gly Ser Lys Trp Trp
            100                 105                 110
Lys Thr Val Asn Ala Thr Leu Asp Ile Pro Leu Asn Ala Met Met Leu
        115                 120                 125
Gly Met Thr Val Glu Ile Ala Leu Gly Ala Ile Tyr Phe Gly Ser Thr
    130                 135                 140
Ala Ala Phe Asn Ala Phe Ser Gly Val Gly Val Ile Phe Leu Thr Leu
145                 150                 155                 160
Ser Tyr Ala Cys Pro Ile Ala Val Ser Phe Phe Phe Arg Arg Arg Ser
                165                 170                 175
Glu Ile Ala Asn Ala Arg Phe Asn Leu Gly Ile Ile Gly Ser Ile Cys
            180                 185                 190
Asn Val Val Ala Leu Gly Lys Ser Pro Pro Arg Ser Pro Thr Pro Gln
        195                 200                 205
Leu Thr Pro Pro Gly Gln Pro Thr Asp Gly Ser Thr Ala Trp Ser Leu
    210                 215                 220
Leu Ala Ile Pro Leu Phe Cys Met Pro Thr Tyr Lys Val Val Thr Leu
225                 230                 235                 240
```

```
Glu Thr Met Asn Tyr Ala Cys Val Val Phe Val Gly Phe Thr Thr Ile
                245                 250                 255
Ala Gly Leu Trp Tyr Leu Val Trp Gly Tyr Arg Asn Tyr Asp Gly Pro
            260                 265                 270
Pro Lys Glu Gly Ile Asp Gly Val Glu Ala Asp Phe Pro Asp Leu Pro
        275                 280                 285
Ala Lys Ser Gly
    290
```

<210> 39243
<211> 290
<212> PRT
<213> A.fumigatus

<400> 39243

```
His Pro Leu Leu Pro Leu His Arg Ala Arg Met Lys Ile Ala Ile Thr
1               5                   10                  15
Gly Ala Arg Gly Thr Val Gly Arg Thr Thr Val Lys Val Cys Ala Asp
            20                  25                  30
Ala Gly His Ala Thr Val Gln Val Asn Arg Thr Glu Gln Pro Pro Gly
        35                  40                  45
Ala Ile Pro Asn Thr Glu Met Arg Thr Ala Asp Val Ala Met Asn Tyr
    50                  55                  60
Gln Gln Thr Val Glu Ala Phe Arg Gly Cys Asp Ala Val Ile His Leu
65                  70                  75                  80
Ala Ala Ile Pro Asn Pro Val Gly Lys Asp Glu Tyr Ala Val His Asn
                85                  90                  95
Asn Asn Val Asp Ser Ala Phe Asn Gly Phe Arg Ala Ala Ala Glu Val
            100                 105                 110
Gly Ile Lys Arg Phe Cys Tyr Ala Ser Ser Val Asn Ala Ile Gly Leu
        115                 120                 125
Ala Phe Ser Asn Arg Pro Leu His Phe Asp Tyr Phe Pro Ile Asp Glu
    130                 135                 140
Glu Ala Pro Gln His Pro Thr Asp Ala Tyr Ala Leu Ala Lys Arg Glu
145                 150                 155                 160
Ala Glu Ile Gln Ala Gln Ala Phe Ala Glu Trp Phe Pro Gly Met Lys
                165                 170                 175
Ile Ala Cys Leu Arg Ile His Glu Val Ser Ser Leu Glu Arg Val Gln
            180                 185                 190
Lys Val His Ala Asn Asp Trp Glu Asn Ala Gly Val Lys Gln Leu Trp
        195                 200                 205
Gly Trp Val Asn Pro Val Ala Thr Ala Arg Ala Cys Leu Leu Ala Val
    210                 215                 220
Glu Lys Cys Asp Asn Trp Glu Gly Cys Glu Val Phe Asn Ile Val Ala
225                 230                 235                 240
Pro Thr Thr Thr Gln Asp Leu Pro Ser Glu Lys Leu Ala Arg Lys His
                245                 250                 255
Tyr Pro Asp Ala Glu Ile Arg Ala Asp Met Ser Gly Asn Gln Gly Phe
            260                 265                 270
Trp Thr Thr Asp Lys Ala Lys Gln Leu Met Gly Trp Glu His Tyr Glu
        275                 280                 285
Thr Glu
    290
```

<210> 39244
<211> 68

<212> PRT
<213> A.fumigatus

<400> 39244
Leu Ala Thr Leu Ser Pro Phe Thr Arg Ile Ser Cys Ile Ser Leu Asp
1 5 10 15
Arg Ile Asn Tyr Glu Val Phe His Val Lys Leu Asn Thr Phe Ser Pro
20 25 30
Pro Arg Asp Lys Ala Thr Ser Thr Leu Pro Ser Ser Leu Phe Thr Leu
35 40 45
Ser Gly Ile Thr Ser Pro Phe Arg Ser Ser Thr Ile Leu Ser Val Ala
50 55 60
Ser Gly Asn Leu
65

<210> 39245
<211> 111
<212> PRT
<213> A.fumigatus

<400> 39245
Arg Val Pro Gly Val Thr Thr Asn Ser Ala Ala Gly Val Arg Asp Tyr
1 5 10 15
Asp Glu Phe Phe Pro Val Phe Ala Glu Met Glu Lys His Asp Met Val
20 25 30
Leu Asn Leu His Gly Glu Val Pro Gly Ser Pro Gly Ser Gly Ile Thr
35 40 45
Asp Met Asn Ala Glu Glu Lys Phe Leu Pro Thr Leu Thr Met Leu Asn
50 55 60
Glu Lys Phe Pro Lys Leu Arg Ile Ile Leu Glu His Cys Ser Thr Glu
65 70 75 80
Ala Ala Leu Glu Ala Val Arg Ser Cys Ser Ser Thr Val Ala Gly Thr
85 90 95
Leu Ala Cys Pro Cys Leu Cys Tyr Met Arg Cys Gly Leu Thr Asn
100 105 110

<210> 39246
<211> 136
<212> PRT
<213> A.fumigatus

<400> 39246
Ala His Ala His Ser Ile Pro Ser Ser Asn Ala Leu Leu Ile Pro Ser
1 5 10 15
Ser Gly Ser Asp Ser Ala Pro His Pro Arg Leu Ala Lys Gln Gly Gly
20 25 30
Ala Glu Gly Thr Ala Lys Pro Pro Ala Gly Val Phe Thr Gln Pro Cys
35 40 45
Val Val Gln Tyr Val Leu Leu Ala Leu Glu Glu Gly Val Glu Arg Gly
50 55 60
Val Ile Ala Asn Glu Asp Ile Thr Pro Glu Lys Leu Ala Asn Phe Leu
65 70 75 80
Ser Gly Tyr Gly Arg Arg Phe Tyr Lys Leu Pro Glu Ala Thr Glu Arg
85 90 95
Ile Val Leu Glu Arg Lys Gly Glu Val Ile Pro Glu Ser Val Lys Ser
100 105 110

```
Glu Asp Gly Ser Val Glu Val Ala Leu Ser Arg Gly Gly Glu Lys Val
        115                 120                 125
Phe Ser Leu Thr Trp Lys Thr Ser
    130                 135
```

<210> 39247
<211> 94
<212> PRT
<213> A.fumigatus

<400> 39247

```
Lys Pro His Thr Pro Pro Ser Tyr His Ile Ser Pro Arg Pro Ala Ser
1               5                   10                  15
Thr Pro Ala Arg Ser Pro Arg Asp Ser Pro Thr Pro Arg Ala Ala Ser
            20                  25                  30
Pro Arg His Ser Pro Ser His Ser Arg Gly Pro Phe Val Pro Val Pro
        35                  40                  45
Ala Arg Thr Pro Arg Gly Ser Ala Gly Thr Arg Ser Ser Phe Arg Gly
    50                  55                  60
Thr Thr Pro Arg Arg Leu Glu Pro Gly Ser Pro Pro Arg Val Ser Pro
65                  70                  75                  80
Gly Arg Thr Arg Pro Ser Asp Ala Gly Gly Leu Leu Arg Arg
                85                  90
```

<210> 39248
<211> 101
<212> PRT
<213> A.fumigatus

<400> 39248

```
Gly Ile Gln Leu Glu Asp Arg Leu Leu Thr Ser Ser Ala Glu Met Ile
1               5                   10                  15
Leu Lys Glu Thr Thr Arg Leu Glu Leu Pro Ala Ala Ala Asp Met His
            20                  25                  30
Val His Leu Arg Gln Gly Lys Met Met Glu Ser Val Val Pro Gln Ile
        35                  40                  45
Arg Asn Gly Gly Val Asp Thr Val Phe Val Met Val Ser Ala Ala Gly
    50                  55                  60
Gln Leu Leu Thr Leu Thr Leu Thr Pro Thr Leu Thr Arg Pro Ala Gln
65                  70                  75                  80
Pro Gly Pro Pro Arg His Glu Cys Cys Pro Gly Ala Gly Val Gln Gly
                85                  90                  95
Pro Val Ala Gly His
            100
```

<210> 39249
<211> 63
<212> PRT
<213> A.fumigatus

<400> 39249

```
Ala Val Cys Leu Ile Ala Tyr Ala Cys Ala Tyr Ala Arg Leu Leu Cys
1               5                   10                  15
Ile Ser Leu Asn Val Phe Arg Ile Ser Phe His Ala Ser Cys Ala Pro
            20                  25                  30
Phe His Thr Tyr Thr Ser Leu Ser Ala Lys Arg Thr Ala Ala Ala Tyr
```

```
        35                  40                  45
Arg Arg Thr Glu Leu Arg Gln Ile Leu Cys Ser Ala Arg Trp Trp
    50                  55                  60
```

<210> 39250
<211> 553
<212> PRT
<213> A.fumigatus

<400> 39250

```
Ser Ser Glu Cys Ile Gln Glu Leu Thr Asp Met Trp Asn His Arg His
1               5                  10                  15
Asp Ala Ala Lys Pro His Leu Ala Asp Phe Asp Thr Thr Leu Ala Glu
            20                  25                  30
Ile Gly Ser Leu Ser Val Glu Phe Thr Arg Leu Ala Gln Leu Thr Lys
        35                  40                  45
Gln Asp Lys Tyr Tyr Asp Ala Ile Ala Arg Ile Thr Asn Glu Leu Glu
    50                  55                  60
Lys Leu Gln Asp His Thr Met Val Pro Gly Leu Trp Pro Leu Lys Ile
65                  70                  75                  80
Asp Ala Ser Gly Cys Arg Thr Ala Ala Ser Gln Leu Asn Asn Glu Val
                85                  90                  95
Pro Arg Asn Gly Val Val Asp Thr Glu Pro Ser Ala Leu Ser Pro Thr
            100                 105                 110
Pro Val His Thr Pro Ala Phe Ser Ala Ser Pro Ser Met Ser Ser Ala
        115                 120                 125
Ser Pro Ser Thr Pro Pro Val Pro Arg Ser Thr Leu Thr Pro Leu Leu
    130                 135                 140
Ala Gln Asn Glu Arg Pro Leu Pro Thr Asp Ala Gln Ser Tyr Ala Lys
145                 150                 155                 160
Phe Phe Ala Arg Arg Asp Gly Gly Ser Leu His Ile Asp Ala Glu Pro
                165                 170                 175
Ala Asn Tyr Asp Ala Pro Asn Glu Gly Glu Asn Ser Ala Val Thr Ser
            180                 185                 190
Ser Ser Gly Asp Lys Ala Cys Thr Gly Gly Leu Thr Ala Ser Leu Tyr
        195                 200                 205
Pro Lys Gln Lys Phe Gly Leu Gly Ala Arg Gly Asp Ser Thr Tyr Glu
    210                 215                 220
Tyr Leu Pro Lys Glu Tyr Met Leu Leu Gly Gly Leu Asn Glu Gln Tyr
225                 230                 235                 240
Pro Ala Met Tyr Lys Lys Ala Leu Asn Ala Ala Arg Glu His Leu Leu
                245                 250                 255
Phe Arg Pro Met Val Lys Asp Glu Arg Asp Ile Arg Phe Leu Ser Thr
            260                 265                 270
Met Thr Leu Thr Arg Pro Ile Ala Glu Gln Ala Pro Glu Ser Val Ser
        275                 280                 285
Ala Thr Tyr Glu Gly Thr His Leu Gly Cys Phe Ala Gly Gly Met Phe
    290                 295                 300
Ala Leu Gly Ala Lys Leu Phe Gly Ile Glu Gly Asp Leu Asp Leu Ala
305                 310                 315                 320
Ala Lys Leu Thr Asn Ala Cys Val Trp Ala Tyr Gly Val Thr Lys Thr
                325                 330                 335
Gly Ile Met Pro Glu His Phe Leu Leu Val Pro Cys Lys Lys Gly Glu
            340                 345                 350
Pro Cys Val Trp Asn Glu Thr Asp Tyr Trp Asn Ala Leu Asp Pro Asn
        355                 360                 365
```

```
Glu Glu Gln Arg Ile Ala Glu Ala Glu Lys Ala Ile Glu Gln Lys Ser
    370                 375                 380
Lys Ala Ser Asp Ser Thr Lys Arg Ser Thr Thr Asn Gly Ile Arg Arg
385                 390                 395                 400
Arg Asp Ser Ser Gly Lys Trp His Val Ile Ala Asp Ser Ala Lys Thr
                405                 410                 415
Asp Asp Leu Ile Asn His Asp Glu Asp Glu Val Lys Lys Gln Asp Ala
            420                 425                 430
Lys Asp Lys Ala Val Pro His Glu Ile Phe Val Thr Gln Arg Ile Met
        435                 440                 445
Asn Glu Arg Leu Pro Pro Gly Val Thr Arg Ile Leu Asn Arg Ala Tyr
    450                 455                 460
Leu Leu Arg Pro Glu Ala Ile Glu Ser Val Phe Tyr Met Phe Arg Ile
465                 470                 475                 480
Thr Gly Asp Asn Tyr Trp Arg Glu Lys Gly Trp Glu Met Phe Gln Ala
                485                 490                 495
Val Ser Lys Tyr Thr Arg Thr Glu Ile Ala His Ser Ala Ile Asn Asp
            500                 505                 510
Val Thr Leu Glu Lys Ser Lys Met Gln Asp Thr Met Glu Ser Phe Trp
        515                 520                 525
Leu Ala Glu Thr Leu Lys Tyr Phe Tyr Leu Leu Phe Ala Asp Pro Ser
    530                 535                 540
Val Val Ser Leu Asp Asp Tyr Val Leu
545                 550

<210> 39251
<211> 66
<212> PRT
<213> A.fumigatus

<400> 39251
Leu Val Phe Asn Glu Gln Phe Met Ile Ser Ala His Asp Pro Val Val
1               5                   10                  15
Asp Lys Ser Ser Thr Pro Leu Thr Asn Lys Val Ile Lys Val Leu Ala
            20                  25                  30
Met His Gly Asn Leu Tyr Lys Thr Phe Gly Glu Asn Ile Ile Leu Leu
        35                  40                  45
Ile Asn Arg Glu Gly Thr Asn Leu Arg Asp Ser Cys Leu Ala Lys Gln
    50                  55                  60
Ile Pro
65

<210> 39252
<211> 413
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (407)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39252
Arg Leu Leu Ala Glu Thr Ser Leu Gln Leu Leu Thr Leu Lys Leu Leu
1               5                   10                  15
Tyr Leu Ile Phe Thr Thr Pro Ser Thr Tyr Glu Tyr Phe Tyr Thr Asn
```

```
            20                  25                  30
Asp Leu His Val Leu Val Asp Ile Leu Ile Arg Asn Leu Leu Asp Leu
        35                  40                  45
Pro Glu Glu Ala Ser Ala Leu Arg His Thr Tyr Leu Arg Val Leu Tyr
    50                  55                  60
Pro Leu Leu Ala His Thr Gln Leu Lys Tyr Pro Pro His Tyr Lys Arg
65                  70                  75                  80
Glu Glu Leu Lys Lys Val Leu Asn Ile Leu Gly Arg Gly Gln Leu Ser
                85                  90                  95
Ser Gly Glu Gly Asp Leu Glu Arg Ile Leu His Phe Glu Glu Val Asp
            100                 105                 110
Glu Thr Thr Arg Arg Leu Val Leu Arg Cys Ala Thr Val Glu Trp Leu
        115                 120                 125
Arg Asn Glu Glu Ser Glu Ser His Arg Glu Ser Val Ala Ser Phe Asp
    130                 135                 140
Ser Thr Thr Asp Ala Val Gln Thr Asp Ala Glu Ser Gly Thr Pro Thr
145                 150                 155                 160
Ser Met Glu Gly Ser Ser Pro Gly Ala Leu Ser Pro Thr Arg Leu Cys
                165                 170                 175
Gly Ser Gly Ser Pro Lys Pro Asp Ala His Arg Lys Pro Ser Ala Val
            180                 185                 190
Gln Arg Leu Gly Met His Val Glu Pro Ala Ser Cys Ser Ala Ile Ser
        195                 200                 205
Val Gln Glu Val Ala Asn Gln His Glu Lys Pro Gly Val Ile Thr Pro
    210                 215                 220
Ser Arg Asn Asp Ala His Pro Thr Val Asn Ser Ser Thr Thr Asp Thr
225                 230                 235                 240
Ser Ala Thr Ile Lys Pro Lys Ile Lys Pro Glu Pro Pro Lys Ser Arg
                245                 250                 255
Arg Arg Arg Gly Arg Arg Ile Ala Glu Glu Glu Asp Asn Ala Asp Lys
            260                 265                 270
Thr Pro Glu Gly Thr Ala Ser Ala Ala Ser Ser Pro Ala Thr Ala Ser
        275                 280                 285
Thr Ser Val Thr Pro Leu Val Asp Cys Gly Asn Ser Thr Ser Met Ser
    290                 295                 300
Gly Leu Ala Pro Pro Val Pro Ala His Leu Arg Arg Ser Ala Ser Asn
305                 310                 315                 320
Pro Pro Pro Ala Leu Pro Pro Pro Arg Arg Ser Ser His Pro Ala Val
                325                 330                 335
Gln Ala His Pro Leu Ser Gly Asn Cys Ser Pro Leu Asn Ser Ser Pro
            340                 345                 350
Leu Asn Val Pro Ser Val Gly Lys His Gly Gln Lys Pro Glu Pro Pro
        355                 360                 365
Lys Ala Arg Arg Trp Ala Arg Gly Arg His Ala His Gly Asp Ser Ala
    370                 375                 380
Asp Arg Ser Gly Lys Asp Met Pro Met Asn Gly Ala Ile Leu Arg Val
385                 390                 395                 400
Leu Ala Glu Thr Gly Arg Xaa Arg Thr Lys Gln Cys Val
                405                 410
```

<210> 39253
<211> 387
<212> PRT
<213> A.fumigatus

<400> 39253

```
Ser His Pro Tyr Ser Arg His Ser Phe Ile Pro Leu Val Glu Val Leu
1               5                  10                  15
Ile Phe Leu Ile Phe Phe Phe Phe Asn Phe Phe Phe Leu Leu Ile Phe
            20                  25                  30
Val Ala Ser Pro His Arg Arg Tyr Arg Leu Pro Ala Met Phe Arg Ala
        35                  40                  45
Arg Arg Tyr Arg Val Ser Leu Val Phe Ala Val Ile Phe Val Leu Ile
    50                  55                  60
Phe Ile His Phe Ser Arg Ser Arg Asp Thr Ser Ala Ser Thr Val Ser
65                  70                  75                  80
Ile Pro Ala Pro Val Asp Gln Pro Lys Thr Tyr Pro Gln Arg Pro Pro
                85                  90                  95
Pro Ala Ala Pro Asp Asn Lys Lys Pro Ile Ala Pro Glu Ser Pro Ser
            100                 105                 110
Ser His Glu Pro Thr Ser Glu Leu Val Ser Thr Pro Ala Gln Gln Val
        115                 120                 125
Glu Lys Pro Ala Ala Pro Asp Ser Asn Pro Pro Gln Asp Leu Ala Ser
    130                 135                 140
Gly Ala His Gly Gln Ala Ser Ser Lys Asp Val Ser Val Ala Gly Gln
145                 150                 155                 160
Thr Ala Thr Ser Ser Ser Asp Asn Ala Ser Ala Lys Gly Asp Gly Ser
                165                 170                 175
Glu Val Pro Pro Tyr His Leu Asp Tyr His Gly His Ala Arg Leu Glu
            180                 185                 190
Ala Asp Leu Pro Glu Thr Asn Arg Pro Thr Val His Trp Lys Gln Val
        195                 200                 205
Gln Glu His Tyr Pro Leu Ala Pro Glu Asn Leu Ile Lys Leu Pro Thr
    210                 215                 220
Gly Lys Ser Lys Ala Leu Pro Lys Val Gln Ala Ala Phe Arg Asp Glu
225                 230                 235                 240
Thr Thr Ser Asp Lys Ile Gln Arg Val Gln Arg Leu Ser Thr Ile Lys
                245                 250                 255
Ala Ala Phe Glu His Ala Trp Asn Gly Tyr Lys Thr Ser Ala Met Gly
            260                 265                 270
His Asp Glu Ile Lys Pro Leu Arg Gly Gly Phe Arg Asp Pro Phe Met
        275                 280                 285
Gly Trp Ala Ala Thr Leu Val Asp Ser Leu Asp Thr Leu Trp Ile Met
    290                 295                 300
Asp Leu Lys Asp Glu Phe Ala Ile Ala Val Asp Gln Val Lys Lys Ile
305                 310                 315                 320
Asp Phe Thr Thr Ser Lys Arg Asp Glu Ile Pro Val Phe Glu Thr Val
                325                 330                 335
Ile Arg Tyr Leu Gly Gly Leu Leu Gly Ala Tyr Asp Ile Ser Gly His
            340                 345                 350
Lys Tyr Asp Val Leu Leu Glu Lys Ala Val Glu Leu Ala Asp Ile Val
        355                 360                 365
Met Gly Ala Phe Asp Thr Pro Asn Arg Met Pro Thr Met Phe Tyr Lys
    370                 375                 380
Trp Thr Pro
385
```

<210> 39254
<211> 122
<212> PRT
<213> A.fumigatus

<400> 39254
Ser Leu Ser Glu Lys Ile Gln Asp Tyr Asp Cys Phe Tyr Ala Ser Val
1 5 10 15
Phe Glu Ala Glu Gln Pro Val Leu Lys Ser Leu Pro Leu Ala Val Gln
20 25 30
Gln Lys Gln Ile Val Val Thr Cys Asn Tyr Glu Ala Arg Arg Arg Gly
35 40 45
Leu Arg Lys Leu Gln Leu Ile Lys Glu Ala Lys Gln Ile Cys Pro Asp
50 55 60
Val Val Ile Val Leu Gly Glu Asp Leu Thr Arg Phe Arg Asn Ala Ser
65 70 75 80
Lys Glu Leu Tyr Leu Phe Leu Gln Asp Phe Val Trp Gly Lys Arg Val
85 90 95
Glu Lys Leu Gly Phe Asp Glu Val Gly Val Tyr Pro Ala Cys Ala Phe
100 105 110
Arg Ile Trp Pro His Ala Asn Asp Gln Ser
115 120

<210> 39255
<211> 485
<212> PRT
<213> A.fumigatus

<400> 39255
Val Phe Leu Asp Val Ser Asp Met Val Thr Tyr Asn Val Glu Met Leu
1 5 10 15
Asn Arg Asn Asp Leu Lys Asn Ser Phe Phe His Leu Asp Arg Arg Asp
20 25 30
Pro Thr Val Gly Phe Thr Tyr Asp Ala Thr Asp Phe His Gly His Ala
35 40 45
Tyr Gln Ala Val Pro Asp Val Ala Thr Asp Ala Ala Ser Glu Trp Leu
50 55 60
Arg Thr Arg Leu Leu Val Ala Ser His Leu Ala Ala Tyr Leu Arg Asn
65 70 75 80
Gln Leu Glu Tyr Gln Lys Gly Tyr Thr Ala Thr Val Gly Ile Ser Thr
85 90 95
Ser Lys Leu Leu Ala Lys Leu Val Gly Asn Thr His Lys Pro Asn Ser
100 105 110
Gln Thr Thr Leu Leu Pro Pro Tyr Thr Val Ala Glu His Gly Ala Lys
115 120 125
Ser Asn Val Leu His Phe Leu Asp Ala His Glu Ile Arg Lys Ile Pro
130 135 140
Gly Ile Gly Ser Lys Ile Ala His Arg Ile Lys Ser Phe Leu Thr Thr
145 150 155 160
Ala Val Asn Gly Pro Gly Thr Glu Val Gly Arg Thr Arg Asp Thr Arg
165 170 175
Pro His Ser Asp Asp His Ile Val Thr Ile Gly Asp Val Arg Cys Phe
180 185 190
Pro Gly Met Gly Pro Phe Leu Leu Glu Lys Ile Leu Gly Gly Pro Gly
195 200 205
Ser Pro Arg Gly Ile Gly Ala Arg Ile Trp Gly Leu Ile His Gly Val
210 215 220
Asp Asn Thr Glu Val Leu Gln Ala Arg Asp Leu Pro Thr Gln Ile Ser
225 230 235 240
Ile Glu Asp Ser Tyr Gly Arg Leu Asp Thr Val Asn Glu Val Arg Lys
245 250 255

```
Glu Leu Val Ala Leu Thr Val Ser Leu Ile Arg Arg Met Arg Val Asp
            260                 265                 270
Leu Thr Glu Met Asp Pro Asp Val His Ser Pro Ala Gly Glu Pro Ala
        275                 280                 285
Ala Ala Asp Ala Leu Asn Thr Lys Arg Gln Leu Arg Trp Val Ala His
    290                 295                 300
Pro Arg Thr Leu Arg Leu Ser Thr Cys Pro Arg Pro Ala Pro Gly Ser
305                 310                 315                 320
Asp Gln Ser Gln Arg His Gly Leu Asn Arg Ile Ser Arg Ser Ala Pro
                325                 330                 335
Leu Pro Ser Tyr Val Phe Asn Leu Asp Glu Asn Ala Asp Ala Leu Ala
            340                 345                 350
Glu Arg Leu Val Gln Asp Leu Ala Met Ser Met Phe Arg Lys Leu His
        355                 360                 365
Pro Glu Asn Thr Gly Trp Asn Leu Arg Val Leu Asn Ile Ala Val Thr
    370                 375                 380
Asn Met Ile Glu Ser Ala Gly Asp Gln Lys Asn Ser Ser Gly Arg Asp
385                 390                 395                 400
Ile Gly Lys Met Phe Arg Lys Gln Glu Ala Thr Gln His Asp Asp Pro
                405                 410                 415
Thr Pro Glu Leu Ala Lys Ile Thr Phe Ser Gly Ile Ala Gln Gly Asp
            420                 425                 430
Val Asp Ser Lys Thr Val Asp Ser Ala Glu Ala Asn Ser Thr Trp Glu
        435                 440                 445
Glu Ser Asp Glu Asp Gly Asp Thr Pro Cys Val Ala Cys Thr Ile Cys
    450                 455                 460
Gly Met Leu Ile Pro His Phe Ala Ile Leu Ala His Lys Thr Tyr His
465                 470                 475                 480
Thr Thr Leu Asp Asp
                485

<210> 39256
<211> 630
<212> PRT
<213> A.fumigatus

<400> 39256
Gly Phe Arg Pro Leu Val Asp Gly Asp Glu Val Ser Gln Lys Cys Ser
1               5                   10                  15
Ala Ile Cys Cys Gln Cys Thr Phe Thr Ser Ile Cys Ser Gly Cys Arg
            20                  25                  30
Leu Val Arg Ile Thr Ala Ser Thr Asn Leu Arg Gln Gly Trp Leu Ile
        35                  40                  45
Ile Ile Gln Phe Arg Thr Ala Arg Ser Gln Glu Pro Ser Ala Ile Gln
    50                  55                  60
His Val Ser Ile Leu Glu His Ala Val Ile Asn Thr Pro Ser His Glu
65                  70                  75                  80
Val Asp His Leu Thr Asp Phe Asp Val Thr Phe Glu Leu Pro Asp Lys
                85                  90                  95
His Gln Thr Ile Lys Leu Glu Leu Glu Pro Asn His Asp Ile Leu Ala
            100                 105                 110
Asp Asp Ala Tyr Val Gln Tyr Leu Asp Ala Glu Gly Asn Val His Arg
        115                 120                 125
Glu Glu Pro Ile Gln Arg His Glu His Lys Val Phe Lys Gly Arg Ser
    130                 135                 140
Leu Leu Arg Arg Asp Asn Gly Leu Trp Arg Pro Val Gly Trp Ala Arg
```

```
145                 150                 155                 160
Val Tyr Val Gln Arg Asp Gly Ser Lys Pro Leu Phe Glu Gly Val Phe
                165                 170                 175
Ser Ile Asp Asn Asp Asn His His Val Glu Leu Lys Ser Thr Tyr Leu
            180                 185                 190
Gln Lys Lys Arg Val Glu Asp Ala Ser Ile Pro Asp Arg Lys Asp Glu
        195                 200                 205
Tyr Met Val Val Tyr Arg Asp Ser Asp Met Ile Arg Gln Val Arg Ser
    210                 215                 220
Glu Leu Lys Arg Ser Leu Ile Ser Ser Ser Ser Cys Gln Ala Glu Lys
225                 230                 235                 240
Leu Gly Phe Asn Ser Asp Pro Gln His Pro Ile Phe Arg Ser Glu Phe
                245                 250                 255
Gln Asp Met Asp Leu Gly Met Ser Ser Tyr Gly Ser Met Ser Leu Asn
            260                 265                 270
Ser Leu Phe Gly Leu Ser Lys Arg Gln Ser Asp Ile Gly Gly Val Ser
        275                 280                 285
Gly Asn Ala Gly Gly Val Asn Leu Ala Gln Thr Ile Gly Ser Thr Ser
    290                 295                 300
Gly Cys Pro Lys Thr Lys Gln Val Ala Leu Val Gly Ile Ala Ala Asp
305                 310                 315                 320
Cys Ser Phe Arg Ala Ser Phe Asp Asn Asp Asp Ala Ala Lys Gln Trp
                325                 330                 335
Ile Ile Asn Val Val Asn Ser Ala Ser Asp Val Tyr Glu Lys Ser Phe
            340                 345                 350
Asn Ile Ser Ile Gly Leu Arg Asn Leu Thr Met Thr Asp Lys Thr Cys
        355                 360                 365
Pro Glu Thr Ala Pro Ala Ser Thr Gln Trp Asn Met Pro Cys Asp Gln
    370                 375                 380
Ser Asn Ile Thr Gln Arg Leu Asn Leu Phe Ser Gln Trp Arg Gly Gln
385                 390                 395                 400
Gln Ser Asp Asp Asn Ala Tyr Trp Thr Leu Met Ser Asn Cys Pro Thr
                405                 410                 415
Gly Ser Glu Val Gly Leu Ala Trp Leu Gly Gln Leu Cys Asn Thr Glu
            420                 425                 430
Val Thr Gly Asp Gly Ser Asn Ser Val Ser Gly Thr Asn Val Val Val
        435                 440                 445
Arg Val Ser Gly Gly Gly Trp Gln Val Phe Ala His Glu Ser Gly His
    450                 455                 460
Thr Phe Gly Ala Val His Asp Cys Asp Ser Met Thr Cys Ala Gln Asn
465                 470                 475                 480
Leu Glu Ala Ser Ser Gln Cys Cys Pro Tyr Asn Arg Gly Thr Cys Asp
                485                 490                 495
Ala Asn Gly Lys Tyr Ile Met Asn Pro Ser Thr Gly Ala Asp Ile Thr
            500                 505                 510
Ala Phe Ser Pro Cys Thr Ile Gly Asn Ile Cys Ser Ala Leu Gly Arg
        515                 520                 525
Asn Ser Val Lys Ser Ser Cys Leu Ser Asp Asn Arg Asn Val Val Thr
    530                 535                 540
Tyr Thr Gly Ser Gln Cys Gly Asn Gly Ile Val Glu Ala Gly Glu Asp
545                 550                 555                 560
Cys Asp Cys Gly Gly Glu Ser Ser Cys Gly Asp Asn Pro Cys Cys Asp
                565                 570                 575
Ala Lys Thr Cys Lys Phe Lys Ser Gly Ala Val Cys Asp Asp Ala Asn
            580                 585                 590
Asp Ser Cys Cys Ser Gln Cys Gln Phe Ser Pro Ala Gly Thr Val Cys
```

595 600 605
Arg Ala Ser Leu Gly Glu Cys Asp Leu Gln Glu Thr Cys Thr Gly Asn
610 615 620
Ser Ser Thr Cys Pro Ala
625 630

<210> 39257
<211> 153
<212> PRT
<213> A.fumigatus

<400> 39257
Ser Tyr Gly Val Phe Leu Ser Tyr Tyr Leu Ser His Asp Val Phe Pro
1 5 10 15
Asn Thr Ser Ala Leu Ser Tyr Ala Phe Thr Gly Gly Leu Ser Ile Ser
20 25 30
Cys Ala Leu Leu Val Ala Pro Leu Ala Thr His Leu Ile His Leu Phe
35 40 45
Gly Thr Arg Phe Val Leu Asn Leu Gly Val Phe Phe Glu Thr Leu Ser
50 55 60
Leu Ile Gly Ser Ser Phe Ala Thr Gln Lys Trp His Ile Phe Leu Ser
65 70 75 80
Gln Gly Val Cys Phe Gly Trp Gly Met Gly Phe Leu Phe Val Gly Ser
85 90 95
Val Gly Ile Thr Pro Gln Trp Phe Gln Arg Arg Ile Ser Leu Ala Met
100 105 110
Gly Ile Asn Ala Ala Gly Ser Gly Leu Gly Gly Leu Ile Trp Ser Leu
115 120 125
Ala Val Gly Ala Met Ile Pro Arg Asp Trp Ser Lys Val Gly His Ser
130 135 140
Arg Val Leu Gly Ile Leu Arg Leu Arg
145 150

<210> 39258
<211> 468
<212> PRT
<213> A.fumigatus

<400> 39258
His Leu Trp Asn Trp His Arg Asp Tyr Arg Glu Leu Ile Gly Asp Leu
1 5 10 15
Ser Pro Ala Asn Tyr Leu Lys Asp Leu Arg Thr Asn Arg Pro Val Arg
20 25 30
Pro Ser Gly Ser Arg Pro Ile Pro Ser Arg Ala Thr Gly Ser Val Ala
35 40 45
Thr Pro Arg Glu Ala Leu Pro Pro Arg Ala Ser Ser Ser Met Ser Met
50 55 60
Tyr Gly Gln Pro Gly Pro Gln Pro Thr Ser Pro Glu Arg Glu Arg Pro
65 70 75 80
Arg Ala Ser Ser Ser Leu Ser Thr His Arg Pro Phe Glu Pro His Val
85 90 95
Ser Leu Gly Ser Ser Ala Gly Arg Pro Leu Val Gln Glu Pro Arg Met
100 105 110
Val Pro Ile Arg Lys Asn Val Ser Pro Ser His Val Phe Ser Arg Pro
115 120 125
Ser Pro Pro Ser Pro Asn Ala Val Tyr Arg Glu Ser Gly Gln Arg Arg

```
    130                 135                 140
Val Glu Lys Glu Glu Ala Arg Ser Leu Arg Asp Ala Leu Gln Glu Leu
145                 150                 155                 160
Asp Leu His Asp Glu Ile Arg Leu His Gln Ala Ala Gln Asp Glu Ala
                165                 170                 175
Thr Glu Leu Val Trp Met His Gln Asn Pro Gly Val Pro Tyr Lys Asn
            180                 185                 190
Pro Tyr Ala Pro Tyr His Asn Pro Asp Leu Asp Arg Ser Ser Gln Thr
        195                 200                 205
Pro Lys Ser Ala Gly Arg Ser Gln Asn Gln Ser Asp Lys Ile Gly Gly
    210                 215                 220
Pro Met Asp Asn His Arg Ser Thr Ser Glu Ser Ser Ser Asp Ser His
225                 230                 235                 240
Phe Ala Asp Ser Gly Gly Ile Gly Leu Gly Val Lys His Asp Arg Gln
                245                 250                 255
Pro Gln His Gly Leu Glu Asp Ser Gly Ser Ser Pro Thr Lys Ser Pro
            260                 265                 270
Ser Pro Arg Lys Asn Val Arg Val Asp Phe Ala Leu Pro Ala Glu Glu
        275                 280                 285
Ser Pro Ser Lys Ser Arg Gly Gly Gly Asn Ser Cys Leu Ser Arg Phe
    290                 295                 300
Gly Asn Glu Ser Ser Arg Gly Ile Phe Arg Asn Pro Arg Asp Ser Ile
305                 310                 315                 320
Tyr Glu Glu Pro Lys Asp Thr Arg Gly Pro Glu Glu Asp Glu Arg Pro
                325                 330                 335
Ala Phe Ser Arg Ser Asp Ser Ser Ala Leu Arg Ala Lys Pro Arg Asn
            340                 345                 350
Ala Leu Pro Arg Gly Ser Arg Pro Leu Pro Gly Arg Leu Ser Ser Leu
        355                 360                 365
Pro Phe Val Asp Lys Leu Ala Arg Phe Glu Leu His Lys Gln His Pro
    370                 375                 380
Thr Gln Ser Arg Asn Pro Asp Tyr Arg Thr Asn Asp Pro His Pro Gln
385                 390                 395                 400
Ala Ala Pro Asp Gly Asn Ala Asp Lys Glu Gln Ala Asp Gln Gly Val
                405                 410                 415
Arg Thr Lys Asn Gly Leu Glu Ile Arg Ser Glu Glu Ile Arg Ala Ala
            420                 425                 430
Thr Ser Lys Lys Leu Lys Asp Arg Ser Thr Arg Leu Pro Met Pro Thr
        435                 440                 445
Ala Val Ser Asn Arg Val Gly Pro Ala Asn Arg Glu Phe Arg Pro Val
    450                 455                 460
Leu Glu Ala His
465
```

<210> 39259
<211> 225
<212> PRT
<213> A.fumigatus

<400> 39259

```
Leu Arg Gln Gly Val Val Ala Arg Ser Leu His Ser Ile His Thr Arg
1               5                   10                  15
Ala Val Thr Arg Phe Gln Leu His Ser Phe Phe Thr Ser Tyr Arg Arg
            20                  25                  30
Asn Gln Lys Ser Ser Leu Ala Tyr Gln Asn Arg Tyr Thr Ser Ala Gln
        35                  40                  45
```

```
His Arg Pro Ala Tyr Ser Gln Ser Tyr Phe Pro Ser Gln Tyr Arg Val
    50                  55                  60
Ser Ile Ala Ala Cys Thr Ser Gln Thr Ser Val Leu Ser Ile Asn Ser
65                  70                  75                  80
Ala Ile Asn Met His Phe Thr Lys Ala Leu Leu Phe Thr Ala Ala Ala
                85                  90                  95
Val Ala Pro Phe Ala Ser Ala Ala Ala Gln Ala Glu Pro Thr Thr Thr
            100                 105                 110
Ile Thr Val Lys Met Met Ser Val Gly Ala Ser Ser Thr Pro Thr Pro
        115                 120                 125
Ser Pro Ser Ser Ser Ser Ser Ser Ala Val Gly Ala Thr Pro Ser Gly
    130                 135                 140
Ser Ser Ser Pro Ser Ile Arg Pro Thr Gly Gly Ile Tyr Leu Pro Ser
145                 150                 155                 160
Ser Gly Arg Trp Asn Ser Thr Ser Ser Ser Ile Val Lys Val Thr Val
                165                 170                 175
Pro Ala Thr Val Ser Gly Pro Ser Gln Thr Asn Ala Ala Ala Ser Ala
            180                 185                 190
Ala Ser Ser Ala Pro Ser Gln Gly Gly Ala Ala Thr Ser Ile Asn Phe
        195                 200                 205
Ser Gly Pro Leu Thr Ala Val Ala Met Ala Leu Val Gly Phe Ala Leu
    210                 215                 220
Phe
225
```

<210> 39260
<211> 71
<212> PRT
<213> A.fumigatus

```
<400> 39260
Phe Met Ser Val Tyr Thr Leu Asn Leu Ser Phe Lys Lys Leu Trp Pro
1               5                   10                  15
Leu Ala Ser Cys Leu Val Ser Ser Arg Phe Arg Tyr Ser Leu His Pro
            20                  25                  30
Ile Pro Leu Asp Phe Phe Val Met Ile Asp Gly Thr Asp Gly Ser Thr
        35                  40                  45
Met Ser Pro Val Pro Ile Ile Leu Glu Val Leu Lys Tyr Pro Tyr Gly
    50                  55                  60
Ala Tyr Arg Gly Ile Ala Gly
65                  70
```

<210> 39261
<211> 201
<212> PRT
<213> A.fumigatus

```
<400> 39261
Ala Val Val Lys Leu Pro Val Ile Phe Ile Asp Ile Glu Thr Asn Ser
1               5                   10                  15
Arg Ser Val Arg Ser Ser Gly Gly Arg Thr Gly Gly Ser Ser Arg Pro
            20                  25                  30
Gly Ser Thr Ser Ser Ser Asn Arg Ile Gly Gly Ala Tyr Tyr Ala Gly
        35                  40                  45
Gly Ala Thr Ser Thr Tyr Lys Ala Gly Thr Arg Ser Pro Leu Gly Val
    50                  55                  60
```

```
Thr Pro Phe Leu Leu Pro Val Ala Ala Leu Ala Ile Phe Pro Gly Ile
65                  70                  75                  80
Trp Leu Tyr Gly Ala Tyr Ala Tyr Pro Tyr Ser His Arg Tyr Asn Tyr
                85                  90                  95
Thr Asn Glu Thr Ser Arg Gln Asn Glu Ser Leu Pro Val Val Cys Leu
            100                 105                 110
Cys Gln Glu Tyr Ser Asp Cys Gly Cys Asp Asp Asn Asn Asn Ser Thr
        115                 120                 125
Tyr Tyr Gln Ser Leu Phe Asn Gly Thr Gln Pro Val Asn Ser Ser Ile
    130                 135                 140
Ala Lys Val Val Asn Ala Asn Gly Thr Glu Thr Ile Tyr Ile Asn Gly
145                 150                 155                 160
Thr Val Pro Asn Ala Thr Asp Ser Thr Ser Ser Ser Thr Ser Ser Ala
                165                 170                 175
Pro Ala Thr Ala Leu Leu Glu Ala Ser Gly Tyr Trp Val Met Val Ala
            180                 185                 190
Leu Val Ala Ser Met Val Trp Ala Leu
        195                 200
```

<210> 39262
<211> 120
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (10)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39262

```
Leu Ile Pro Met Trp Asp Trp Phe Gly Xaa Phe His Pro Gly Leu Gly
1               5                   10                  15
His His Val Ser Ser His Glu Trp Glu Glu Thr Leu Pro Gln Leu Leu
            20                  25                  30
Glu Thr Lys Val Pro Ile Ile Thr Thr Gly Tyr Thr Gln Trp Asp Met
        35                  40                  45
Glu Arg Asp Ile Asn Trp Val Arg Glu Lys Cys Ala Gly Glu Phe Asp
    50                  55                  60
Ile Leu Leu Glu Pro Gly Glu Asn Ile Phe Arg Ser Leu Arg Trp Asp
65                  70                  75                  80
Leu Asn Asp Leu Asp Pro His Asp Val Ser Cys Gly Asn Trp Gly Leu
                85                  90                  95
Trp Ala Phe Arg Gly Lys Arg Tyr Val Met Thr Val Pro Ile Ser Glu
            100                 105                 110
Thr Leu Ala Asn Phe Ser Pro Ala
        115                 120
```

<210> 39263
<211> 662
<212> PRT
<213> A.fumigatus

<400> 39263

```
Ser Ser Leu Ala Ala Pro Ser Ser Leu Gln Glu Thr Phe Ile Lys Ile
1               5                   10                  15
His Phe Gly Asn Val Ser Lys Asn Pro Lys Lys Val Pro Arg Ile Ser
```

```
            20                  25                  30
Leu Arg Ser Lys Ala Leu Leu Phe Glu Leu Glu Asp Asp Ala Phe Glu
        35                  40                  45
Trp Lys Leu Gly Cys Ile Tyr Arg Thr Gly Leu Leu Glu Gln Arg Gln
    50                  55                  60
Arg Leu Ala Arg Glu Glu Ala Phe Glu Leu Lys Val Gln Lys Ile Arg
65                  70                  75                  80
Glu Ser Gly Gln Arg Arg Ala Pro Ser Arg Leu Arg Thr Arg Ser Ser
                85                  90                  95
His Arg Thr Leu Arg Ser Glu Arg Thr Ser His Asp Thr Lys Arg Ser
            100                 105                 110
Lys Ser Ala Asp Pro Lys Pro Arg Gly His Ala Thr Glu Thr Lys Gly
        115                 120                 125
Gly Arg Gly Arg Arg Phe Arg Tyr Asp Thr Glu Gly Ser Ala Cys Leu
    130                 135                 140
Ser Thr Asp Ser Lys Ile Ser Glu Glu Lys Ala Trp Leu Arg Leu Gln
145                 150                 155                 160
Glu His Asn Ala Arg Ser Trp Lys Gln Lys Ile Asp Ala Ala Phe Arg
                165                 170                 175
Phe Gln Gly Ser Ser Ile Lys Glu Ile Arg Asn Leu Phe Ser Gly Ala
            180                 185                 190
Asp Glu Pro Pro Asp Asp Ala Thr Val Thr Glu Lys Ile Leu Ala Ile
        195                 200                 205
Pro Asn Arg Pro Gly Ile Met Ser Ala Leu Ile Thr Asp Leu Ser Leu
    210                 215                 220
Val Ile Asp Lys Pro Ser Phe Pro Ile Glu Glu Phe Pro Ser Phe Leu
225                 230                 235                 240
His Arg Leu Gly Lys Gly Ile Pro Leu Ser Thr Gln Tyr Ala Leu Leu
                245                 250                 255
Ile Pro Met Ser Phe His Leu Asn Met Gly Glu Ser Arg Val Asn Leu
            260                 265                 270
Arg Asp Tyr Pro Leu Asp Leu Leu His Ile Pro Ala Leu Arg Pro Gly
        275                 280                 285
Gln Ser Pro Arg Leu Ser Ser Trp Ser Leu Arg Thr Asp Phe Val Ile
    290                 295                 300
Ala Glu Glu Tyr Arg Asp Tyr Arg Ser Ser Arg Lys Val Gln Leu Glu
305                 310                 315                 320
Leu Val Pro Ser Thr Glu Leu Ser Asp Gly Thr Thr Ser Pro Pro Phe
                325                 330                 335
Leu Ile Asp Val Trp Arg Ser Val Ser Pro Val Lys Thr Tyr Ser Asp
            340                 345                 350
Pro Thr Ile Glu Ile Asn Thr Ser Leu Pro Thr Ser Ile Ser Trp Gly
        355                 360                 365
Met Ser Tyr Gln Pro Val Ile Gln Asp Met Met Lys Ile Ile Glu Gly
    370                 375                 380
Phe Thr Lys Thr Glu Ile Asp Pro Ser Glu Arg Val Gly Phe Trp Asp
385                 390                 395                 400
Lys Ile Arg Leu Ser Phe His Ser Arg Ile Arg Val Leu Trp Lys Glu
                405                 410                 415
Asp Gly Asp Val His Leu Arg Leu Lys Gly Ser Arg Asp Pro Tyr Val
            420                 425                 430
Val Thr Gly Phe Gly Gly Gly Phe Val Met Cys Trp Lys Lys Asp Val
        435                 440                 445
Lys Trp Glu Ile His Thr Ser Asp Asp Pro Lys Glu Phe Met Ser Val
    450                 455                 460
Thr Ser Gly Glu Tyr Val Leu Ala Ile Pro Asp Tyr Ser Asn Glu Ala
```

```
465                 470                 475                 480
Arg Tyr Ala Gln Glu Ala Thr Ala His Asp Leu Glu Ser Thr Ser Ser
                485                 490                 495
Ser Ser Asp Phe Lys Asn Ala Thr Leu Phe Lys Lys Val Val Met Lys
            500                 505                 510
Leu Ser Gly Asp Val Arg Leu Val Ala Gly Leu Val Phe Glu Arg Asn
        515                 520                 525
Ile Asp Gly Asp Lys Arg Ser Phe Glu Phe Lys Pro His Tyr Asp Val
    530                 535                 540
Val Leu Arg Asn Pro Glu Phe Ile Asp Pro Glu Glu Arg Lys Val His
545                 550                 555                 560
Thr Ile Asn Ile Ser Val Ile Phe Leu Ser Asn Leu Ser Ser Gln Asp
                565                 570                 575
Tyr Asp Ala Tyr Arg Gly Phe Arg Ser Asn His Ile His Leu Ser Ile
            580                 585                 590
Ser Val Val Ala Pro Val Ser Arg Asn Trp Asp Val Asp His Val Gln
        595                 600                 605
Pro Leu Ser Ser Tyr Asn Ala Val Gln Leu Ser Pro Arg Val Phe Thr
    610                 615                 620
His Phe Leu Thr Trp Trp Ala Leu Ile Leu Gly Gly Met Ser Phe Pro
625                 630                 635                 640
Ser Arg Gln Gly Pro Leu Trp Ala Trp Phe His Gln Asn Gln Gln Glu
                645                 650                 655
Val His Ser Ala Pro Trp
            660
```

<210> 39264
<211> 982
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (923),(926),(963)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39264

```
Ser Arg Asp Ala Met Thr Leu Phe Asn Pro Thr Thr Val Leu Val Gly
1               5                   10                  15
Phe Leu Leu Leu Tyr Leu Ser Ser Phe Leu Ile Phe Ala Ile Val Arg
            20                  25                  30
Ile Ala Thr Gly Val Ser Ile Gln Arg Ile Gly Tyr Phe Ser Leu Arg
        35                  40                  45
Arg Ile Ala Tyr Val Pro Arg Glu Gly Ile Gln Val Glu Leu Arg Gly
    50                  55                  60
Leu Gly Leu Ser Leu His Pro Pro Ser Phe Ala Gln Pro Thr Trp Leu
65                  70                  75                  80
Ser Leu Arg Leu Thr Glu Leu Lys Val Thr Val Asn Pro Ser Ala Leu
                85                  90                  95
Gly Lys Gly Arg Asn Ser Asp Thr Ala Lys Ala Asp Val Pro Glu Pro
            100                 105                 110
Gln Ser Ser Ser Asp Val Ala Asp Thr Ser Gln Asp Gly Gly Glu Ser
        115                 120                 125
Ser Pro Ala Arg Ala Arg Arg Ser Lys Thr Trp Lys Thr Leu Thr Arg
    130                 135                 140
Met Lys Glu Gln Val Lys Arg Leu His Arg Lys Ile His Trp Leu Lys
```

```
145                 150                 155                 160
Leu Val Asp Val Val Ala Val Asn Thr Thr Ile Asn Phe Leu Glu Ala
                165                 170                 175
Gly Gln Phe Gln Ile Gly Ser Leu Ser Leu Ala Val Asp Thr Arg Arg
            180                 185                 190
Lys Met Val Asp Arg Ala Lys Val Phe Arg Arg Lys Lys Asp Glu Ser
        195                 200                 205
Gly Glu Leu Cys Pro Ala Glu Trp Ile Met Asn Val Gln Asn Val Leu
    210                 215                 220
Leu Ala Val Asp Gly Asn Glu Pro Ala Glu Val Leu Asp His Val Gln
225                 230                 235                 240
Val Asn Ile His Gly Leu Leu His Ser Asp Arg Asp Gly Leu Arg Asp
                245                 250                 255
Thr Ser Ile Ala Leu Lys Ile Gly Arg Leu His Ile Pro Tyr Asp Glu
            260                 265                 270
Leu Ala Thr Val Ser Gln Arg Ile Lys Gln Phe Arg Arg Ser Arg Lys
        275                 280                 285
Asp Leu Val Val Asn Asp Thr Asp Asp Glu Ile Ser Phe Ala Asp Phe
    290                 295                 300
Val Glu Glu Leu Asp Arg Pro Gly Ser Arg Asp Asp Val Ile Val Gln
305                 310                 315                 320
Arg Val Ala Asp Ser Lys Glu Phe Ala Ser Ser Leu Leu Arg Gly Ile
                325                 330                 335
Arg Glu Ile Gln Leu Ala Leu Ser Phe Phe Arg Leu Ser Arg Ile Val
            340                 345                 350
Gln Pro Ser Ser Ala Gly Gln Lys Ser Val Tyr Leu Asn Val Ile Ser
        355                 360                 365
His Glu Ile Gly Val Asp Leu His Arg Met Asp Gln Arg Ser Pro Ala
    370                 375                 380
His Arg Met Tyr Phe Gln Arg Asp Asp Val Ala His Gln Ala Leu Leu
385                 390                 395                 400
Ala Ala Ile Ser Leu Ser Val Ser Leu Asp Asp Ser Ser Gly Glu Thr
                405                 410                 415
Asp Asn Ile Val Tyr Ile Pro Met Ala Thr Thr Thr Ile Lys Thr Thr
            420                 425                 430
Leu Pro Ser Lys Thr Val Gly Ser Phe Asp Asn His Asn Ala Glu Glu
        435                 440                 445
Arg Asn Thr Asn Ile Leu Phe Ala Asn Phe Val Val Thr Ser Pro Ser
    450                 455                 460
Leu Asp Leu Glu Pro His His Leu Asp Arg Leu Leu Gly Leu Val Gln
465                 470                 475                 480
Thr Arg Ala Ser Ser Ser Arg Gly Lys Lys Arg Asp Asn His Arg Leu
                485                 490                 495
Ile Ser Arg Leu Leu Pro Lys Ala Asn Ile Lys Leu Ser Val His Glu
            500                 505                 510
Pro Val Val Arg Leu Val Leu Pro Ile Asn Lys Glu Ser Ala Gly Ser
        515                 520                 525
Asp Asp Asp Tyr Asn Leu Leu Ile Ser Ser Ile Ser Ala Ile Ala Leu
    530                 535                 540
Asp Ile Asp Ser Ser His Ser Ser Glu Gly Gly Val His Tyr Leu Leu
545                 550                 555                 560
Ser Ser Val Tyr Arg Val Ala Asp His Lys Leu Tyr Tyr Gln Thr Pro
                565                 570                 575
Thr Gly Val Lys His Ile Leu Leu Thr Thr Glu Thr Leu Glu Leu Lys
            580                 585                 590
Val Leu Leu Asn Glu Ser Pro Glu Val Cys Val Ile Ala Thr Gly Thr
```

595 600 605
Leu Asn Thr Cys Ser Val His Met Val Asn Gly Glu Val Asn Arg Gly
610 615 620
Ile Arg Gln Val Val Glu Gln Leu Arg Ala Gln Met Gln Asn Arg Arg
625 630 635 640
Arg Ala Ser Met Gly His Gln Glu Arg Lys Pro Ser Ile Leu Arg Arg
645 650 655
Ile Pro Pro Trp Leu Leu Asn Phe Gln Phe Glu Ala Thr Gly Leu Ser
660 665 670
Leu Glu Ile Ala Gly Val Asp Ser Thr Val Ser Lys Leu Ser Arg Gly
675 680 685
Val Ser Leu Gln Leu Gln Ser Trp Thr Ala Glu Tyr Arg Ala Gln Lys
690 695 700
Ala Glu Pro Thr His Ile Ser Leu Val Arg Arg Arg Thr Pro Ser His
705 710 715 720
Ser Thr Ile Gly Asp Glu Ser Pro Phe Arg Phe Pro Pro Thr Ser Pro
725 730 735
Pro Arg Gln Ile Gln His Gly Ala Ala Asp Gly Arg Arg Leu Ala Phe
740 745 750
His Ala Arg Gly Phe Glu Gly Phe Val Ile Glu Ser Glu Asp Tyr Leu
755 760 765
Glu Pro Glu Pro Phe Phe Ser Leu Pro Arg Phe Glu Val Ala Leu Ser
770 775 780
Thr Gln Ser Asp Arg Leu Gly Pro Ile Phe His Ile Asn Ser Val Leu
785 790 795 800
Lys Gly Val Tyr Leu Gln Tyr Ser Leu Tyr Arg Tyr Tyr Cys Leu Gly
805 810 815
Val Ala Val Ser Val Ile Gln Asp Ala Phe Ile Gln His Pro Thr Glu
820 825 830
Ala Pro Thr Gln Pro Pro Phe Glu Trp His Pro Lys Asp Ser Ala Ser
835 840 845
Ser Pro Ser Val Pro Arg Pro Pro Leu Gln Arg Ser Glu Leu Ile Thr
850 855 860
Val Asp Ile Arg Ala Thr Val Val Gln Ile Lys Thr Phe Leu Pro Ala
865 870 875 880
Asp Pro Pro Met Leu Leu Gln Ile Tyr Gly Leu Ala Ala Gly Ser His
885 890 895
Arg Leu Ser Ser Pro Tyr Val Lys Ala Gln Leu Ile Arg Leu His Ala
900 905 910
Glu Ala Pro Lys Leu Lys Gly Val Trp Ala Xaa Ile Ile Xaa Met Asn
915 920 925
Asn Val Lys Ala Asp Leu Arg Lys Phe Lys Leu Lys Gln Gly Ser Asn
930 935 940
Leu Phe Glu Glu Lys Ser Ile Asn Val Trp Ala Asp Phe Ile Arg Ile
945 950 955 960
Gly Val Xaa His His Met Ile Met His Arg Val Phe Asp Asn Trp Val
965 970 975
Asn Thr Ala Lys Ala Leu
980

<210> 39265
<211> 80
<212> PRT
<213> A.fumigatus

<400> 39265

```
Lys Met Val Pro Arg Lys Arg Ser Tyr Ala Arg Phe Thr Thr Met Lys
1               5                  10                  15
Thr Ala Thr Ser Ala Asn Glu Gly Pro His Phe Ala Val Pro Ser Ala
            20                  25                  30
Asp Val Val Glu Ala Thr Gly Ala Lys Asn Thr Ser Leu Cys Thr Leu
        35                  40                  45
Gln Ala Thr Ile Asn Arg Gln Gln Ala Thr Val Arg Phe Val Ile Lys
    50                  55                  60
Ser Ser Pro His Pro Tyr Glu Leu Leu Ser Ser Val Asp Asp Ala Asp
65                  70                  75                  80
```

<210> 39266
<211> 136
<212> PRT
<213> A.fumigatus

<400> 39266

```
Leu Asn Arg Asp Asn Asp Phe Arg Ser Lys Ile Ile Ser Pro Ser Ser
1               5                  10                  15
Ile Phe Ala Asn Ala Asn Leu Tyr Arg Thr Thr Met Ser Cys His Gln
            20                  25                  30
His Ile Pro Arg Asp Gln Asp Gly Ile Pro Gly Ser Pro Leu Ser Thr
        35                  40                  45
Lys Ser Arg Val Leu Glu Gly Gly Ala Ser Met Val Gln Asp Phe Thr
    50                  55                  60
Pro Val Lys Gln Ile Cys Ala His Leu Asn Ala Phe His Val Tyr Ala
65                  70                  75                  80
Ser Asp Gln Thr Arg Ala Val Glu Ala Asn His Tyr Cys Thr His Val
                85                  90                  95
Thr Glu Gly Leu Asp Ser Ser Leu Pro Ser Ala Arg Glu Arg Gln Leu
            100                 105                 110
Ile Ser Lys Arg Arg Ser Gln Ala Val Tyr Asp Ile Arg Ile His Gln
        115                 120                 125
Ala Glu Cys Pro Val Asp Arg Arg
    130                 135
```

<210> 39267
<211> 182
<212> PRT
<213> A.fumigatus

<400> 39267

```
Pro Gly Lys Val Gln Gln Ala Gln Ser Gly Glu Thr Thr Phe Met Ala
1               5                  10                  15
Ala Val Lys Ser Ser Thr Arg Lys Arg Ala Pro Val Gly Arg Val Leu
            20                  25                  30
Ala Thr Lys Ser Leu Gln Phe Asp Gly Gly Gly Gly Val Ala Phe Gly
        35                  40                  45
Pro His Pro Arg Asp Phe Ala Thr Ser Leu Pro Arg Lys Ile Tyr Asp
    50                  55                  60
Gln Ala Trp Arg Ile Ala Leu Ser Tyr Arg Tyr Lys Arg Gly Gln Leu
65                  70                  75                  80
Ile Ile Ile Asp Asn Glu Ile Ser Ile Pro Glu Gly Ala Thr Pro His
                85                  90                  95
Leu Ile Lys Glu Ile Phe Lys Val Asn Cys Trp Gly Arg Glu Phe Gly
            100                 105                 110
```

```
Arg Ser Thr Leu Ile Thr Asp Gln Leu Asn Glu Gly Leu Phe Glu Thr
        115                 120                 125
Val Arg Glu Val Gly Glu His Ala Lys Ile Leu Asn Arg Lys Asp Val
    130                 135                 140
Asp Val Lys Asp Leu Leu Glu Thr Gly Arg Leu Val Ile Glu Lys Gln
145                 150                 155                 160
Ala Leu Asp Arg Ile Leu Ser Gln His Ser Arg Asp Leu Val Asn Lys
                165                 170                 175
Pro Ala Thr Ala Val Tyr
            180
```

<210> 39268
<211> 182
<212> PRT
<213> A.fumigatus

<400> 39268

```
Ser Gln Asn Ala Asp Leu Arg Gln Cys Met Ile Tyr Glu Ser Thr Lys
1               5                   10                  15
Pro Asn Ala Arg Leu Ile Gly Val Glu Tyr Met Ile Ser Pro Arg Leu
            20                  25                  30
Phe Glu Thr Leu Pro Ser Glu Glu Arg Lys Leu Trp His Thr His Glu
        35                  40                  45
Phe Glu Val Lys Ser Gly Met Leu Ile Met Pro Ala Pro Ala Gly Val
    50                  55                  60
Pro Lys Pro Ala Trp Glu Ala Ala Glu Thr Ser Glu Met Arg Glu Val
65                  70                  75                  80
Ile Leu Leu Tyr Gly Lys Thr Tyr His Phe Trp Gln Ala Asp Arg Gly
                85                  90                  95
Asp Pro Leu Pro Leu Gly Ala Pro Gln Leu Met Ala Ser Phe Thr Ser
            100                 105                 110
Glu Asp Lys Val Lys Leu Val His Pro Lys Gly Leu Asp Gly Leu Leu
        115                 120                 125
Ala Gly Arg Asp Glu Ala Phe Gly Val Asp Tyr Lys Val Lys Ala Glu
    130                 135                 140
Lys Arg Lys Asp Ile Glu Pro Pro Asn Leu Ser Pro Gly Lys His Phe
145                 150                 155                 160
Gly Ala Cys Leu Arg Ser Ser Ile Ile Ala Asp Asn Cys His Arg Cys
                165                 170                 175
Arg His His Gly Val Glu
            180
```

<210> 39269
<211> 131
<212> PRT
<213> A.fumigatus

<400> 39269

```
Ser Arg Tyr Ala Leu Thr Ile Pro Met Glu Arg Leu Phe Arg Ser Ala
1               5                   10                  15
Leu Arg Asn Ala Thr Pro Gly Ala Val Phe Arg Leu Thr Leu Asp Gly
            20                  25                  30
Leu Gly Leu Phe Cys Ala Cys Thr Leu Val Trp Glu His Leu Leu Thr
        35                  40                  45
Val Gln Leu Ser Glu Gly Thr Ser Met Tyr Pro Thr Phe Asn Pro Arg
    50                  55                  60
```

```
Gly Asp Tyr Leu Met Ile Ser Arg Val His Lys Tyr Gly Arg Gly Ile
65                  70                  75                  80
Glu Val Gly Asp Val Val Arg Phe Tyr His Pro Thr Phe Leu Gly Val
                85                  90                  95
Asn Gly Ala Lys Arg Val Leu Gly Met Pro Gly Asp Phe Val Cys Arg
            100                 105                 110
Asp Leu Pro Phe Ser Thr Glu Val Gly Thr Ser Arg Glu Met Ile Gln
        115                 120                 125
Val Gly Val
    130
```

<210> 39270
<211> 73
<212> PRT
<213> A.fumigatus

```
<400> 39270
Met Ser Thr Ala Pro Glu Leu Pro Lys Glu Leu Pro Gly Asp Glu Pro
1               5                   10                  15
Asp Asp Val Leu Phe Ser Ser Leu Tyr Gly Val Arg Leu Ile Glu Leu
            20                  25                  30
Asn Arg Pro Lys Lys Leu Asn Ser Leu Asn Gly Ser Met Ala Arg Lys
        35                  40                  45
Ile Leu Pro Arg Leu Lys Val Ser Asp Ser Asp Pro Ala Val Cys Asp
    50                  55                  60
Asn Val Leu Val Ala Lys Pro Val Glu
65                  70
```

<210> 39271
<211> 310
<212> PRT
<213> A.fumigatus

```
<400> 39271
Glu Trp Glu Lys Ser Gln Leu Ala Asn Ile Val Met Leu Ser Gly Ala
1               5                   10                  15
Gly Thr Lys Ala Leu Cys Ala Gly Gly Asp Val Ala Ser Leu Ala Leu
            20                  25                  30
Gln Asn Glu Gln Gly Pro Glu Gly Gln Gln Lys Ser Thr Asp Phe Phe
        35                  40                  45
Gly Leu Glu Tyr Arg Leu Asp His Ile Ile Ala Thr Tyr Thr Lys Pro
    50                  55                  60
Phe Ile Ser Val Met Asp Gly Ile Thr Met Gly Gly Gly Val Gly Leu
65                  70                  75                  80
Ser Val His Ala Pro Phe Arg Ile Ala Thr Glu Arg Thr Val Phe Ala
                85                  90                  95
Met Pro Glu Thr Thr Ile Gly Phe Phe Pro Asp Val Gly Gly Ser Phe
            100                 105                 110
Phe Leu Pro Arg Leu Asp Gly Glu Ile Gly Thr Tyr Leu Ala Leu Thr
        115                 120                 125
Ser Glu Arg Leu Asn Gly Val Gln Ala Leu Tyr Ala Gly Ile Ala Thr
    130                 135                 140
His Tyr Phe His Ser Ser Val Leu Ser Asn Leu Thr Ala Arg Leu Ala
145                 150                 155                 160
Glu Leu Val Phe Arg Asp His Ala Ser Leu Ala Glu Arg Leu Asp Leu
                165                 170                 175
```

```
Val Asn Lys Thr Met Ala Glu Phe Ser Val Gly Leu Pro Pro Val Glu
            180                 185                 190
Gln Glu Pro Ile Gln Leu Ala Gly Ser Leu Arg Ser Ala Ile Asp Arg
        195                 200                 205
Cys Phe Lys His Asn Thr Val Glu Glu Ile Phe Arg Ala Leu Glu Gln
    210                 215                 220
Glu Thr Val His Lys Glu Trp Ala Gln Lys Thr Leu Glu Thr Leu Ser
225                 230                 235                 240
Ser Arg Ser Pro Thr Ser Leu Lys Val Thr Leu Arg Gln Met Arg Val
                245                 250                 255
Gly Lys Lys Trp Ser Ile Ser Glu Thr Phe Gln Arg Glu Tyr Gln Ile
            260                 265                 270
Ala Ala Gln Phe Met Lys His Pro Asp Phe Val Glu Gly Val Lys Ala
        275                 280                 285
Arg Leu Met Ser Lys Pro Pro Arg Gln Ala Thr Trp Gln Pro Ala Thr
    290                 295                 300
Leu Glu Gly Ser His Gln
305                 310
```

<210> 39272
<211> 84
<212> PRT
<213> A.fumigatus

<400> 39272

```
Ile Ser Cys Leu Pro Leu Val Val Lys Asn Gly Pro Pro Lys Ala Gln
1               5                   10                  15
Leu Cys Gln Ile Tyr Tyr His Glu Asp Cys Tyr Gln Arg Gln Arg Arg
            20                  25                  30
Pro Thr Phe Arg Cys Pro Gln Arg Arg Cys Ser Arg Ser Tyr Arg Arg
        35                  40                  45
Lys Glu His Leu Thr Leu His Ser Ala Ser His Asn Gln Ser Pro Ala
    50                  55                  60
Gly Asp Cys Pro Phe Cys Asp Lys Val Phe Ser Thr Ser Leu Arg Ala
65                  70                  75                  80
Ala Leu Val Cys
```

<210> 39273
<211> 203
<212> PRT
<213> A.fumigatus

<400> 39273

```
Lys Arg Cys Leu Ala Thr Pro Leu Ser Arg Ser Met Thr Thr Glu Ala
1               5                   10                  15
Gln His Thr Thr Asp Phe Leu Thr Arg Glu Ser Val Thr Gly Pro Arg
            20                  25                  30
Pro Val Trp Asp Thr Pro Ala Lys Ala Thr Thr Tyr Ser Phe Pro Ser
        35                  40                  45
Met Glu Pro Leu Arg Val Val Glu Tyr Pro Arg Asn His Leu Leu Met
    50                  55                  60
Pro Leu Arg Lys Asp Ile Leu His Arg Ala Val Val Tyr Glu Gly Asp
65                  70                  75                  80
Met Thr Arg Gln Gly Thr Ala Ser Thr Lys Trp Arg Asp Asp Val His
                85                  90                  95
```

```
Gly Ser Gly Lys Lys Leu Tyr Ala Gln Lys Gly Thr Gly Arg Ala Arg
            100                 105                 110
Val Gly Asp Lys Lys Ser Pro Ile Arg Arg Arg Arg Arg Cys Arg Phe
        115                 120                 125
Trp Ser Ser Pro Ser Arg Leu Cys Tyr Lys Ser Ser Gln Glu Asp Leu
    130                 135                 140
Arg Pro Gly Leu Ala Asp Ser Pro Glu Leu Pro Val Gln Ala Arg Pro
145                 150                 155                 160
Ala Asp Tyr His Arg Gln Arg Asn Phe Asp Ser Arg Gly Cys His Thr
                165                 170                 175
Ala Pro Tyr Gln Gly Asp Leu Gln Gly Gln Leu Leu Gly Pro Arg Ile
            180                 185                 190
Trp Thr Leu Asn Ile Asn His Arg Pro Ala Glu
        195                 200
```

<210> 39274
<211> 137
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (88),(89),(90),(93),(94),(95),(100),(104)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39274

```
Cys Arg Ser Pro Leu Ala Lys Leu His Gly Ser Pro Leu Pro Trp Lys
1               5                   10                  15
Glu Val Thr Asn Asp Ala Val Asp Ala Phe Phe Lys Leu Pro Ala Asp
            20                  25                  30
Lys Ser Arg Leu Thr Leu Phe Asn Lys Thr Asp Tyr Lys Gln Tyr Pro
        35                  40                  45
His Ala Tyr Gly Leu Pro Ser Glu Ala Glu Ile Glu Lys Phe Val Arg
    50                  55                  60
Asp Ser Ser Glu Ser Ala Ser Lys Thr Val Ala Asp Phe Val Glu Lys
65                  70                  75                  80
Trp Gly His Lys Glu Gly Val Xaa Xaa Xaa Gly Cys Xaa Xaa Xaa Gly
                85                  90                  95
Ser Thr Asn Xaa Ala Asn Ser Xaa Arg Ser Ala Met Gly Val Asn Ser
            100                 105                 110
Glu Val Gln Lys Ser Gln Trp Ile Asn Ser Met Leu Ser Leu Leu His
        115                 120                 125
Met Gly Cys Phe Phe His Ser Pro Cys
    130                 135
```

<210> 39275
<211> 244
<212> PRT
<213> A.fumigatus

<400> 39275

```
Thr Ala Ser Leu Gly Asp Met Thr Lys Pro Ile Tyr Arg Phe Leu Ala
1               5                   10                  15
Asp Arg Lys Trp Arg Glu Tyr Arg Arg Lys Ile Leu Val Gln Arg Ile
            20                  25                  30
Thr Gln Met Lys Val Ile Pro Asp Val Leu Pro His Cys Asp Pro Val
```

```
        35                  40                  45
Val Asp Thr Lys Leu Tyr Phe Gly Arg His Thr Ile Gln Pro Gly Glu
    50                  55                  60
Phe Val Asn Ser Arg Val Ser Ser Thr Pro Pro Lys Leu Asn Ile Gln
65                  70                  75                  80
Leu Phe Glu Ala Gly Glu Lys Leu Val Thr Ile Ala Val Val Asp Pro
                85                  90                  95
Asp Val Pro Asn Val Glu Lys Asp Gly Phe Asp Tyr Lys Met His Tyr
            100                 105                 110
Leu Ala Val Asn Val Pro Ile Ser Ala Thr Ser Thr Lys Val Asp Leu
        115                 120                 125
Ala Asn Leu Ser Ala Asp Ser Gln Val Val Leu Pro Trp Leu Pro Pro
    130                 135                 140
Val Ala Gln Lys Gly Ser Pro Tyr His Arg Leu Ser Ile Phe Ile Met
145                 150                 155                 160
Glu Gln Lys Asp Ser Ala Pro Leu Asn Phe Ser Leu Val Lys Gly Met
                165                 170                 175
Glu Thr Ser Arg Asp Val Leu Leu Arg Thr Leu Gln Ala Arg Tyr His
            180                 185                 190
Leu Lys Ala Ile Gly Ala His Leu Phe Arg Thr Gln Trp Asp Glu Asn
        195                 200                 205
Met Leu Glu Val Met Arg Glu Ile Gly Phe Pro Asp Ala Asp Val Glu
    210                 215                 220
Leu Arg Arg Lys Arg Val Glu Pro Leu Pro Tyr Lys Arg Arg Asn Pro
225                 230                 235                 240
Ser Thr Phe Arg
```

<210> 39276
<211> 461
<212> PRT
<213> A.fumigatus

<400> 39276

```
Asn Asp Leu Arg Asp Leu Arg Tyr Gly Pro Ser Cys Gly Val Ala Phe
1               5                   10                  15
Val His Arg Cys Cys Pro Leu Leu His Ser Ser Ser Glu Val Ser Glu
            20                  25                  30
Glu Lys Ala Tyr Ala Ser Leu Arg Arg Ser Gly Cys Thr Met Leu Thr
        35                  40                  45
Glu Asn Ala Ser Val Ala Arg Asp Leu Ile Phe Arg Thr Leu Val Lys
    50                  55                  60
Pro Phe Glu His Asp Tyr Ala Gln Ile Leu Lys Arg Tyr Gln Ile His
65                  70                  75                  80
Arg Asn Glu Leu Gln Ile Val Ala Leu Ala Ala Met Glu Arg Asn Ala
                85                  90                  95
Arg Lys Glu Arg Glu Leu Ala Glu Ile Ala Arg Asp Ala Ala Glu Lys
            100                 105                 110
Glu Arg Val Ala Ala Glu Asn Glu Arg Lys Glu Ala Ala Ala Glu Arg
        115                 120                 125
Gln Arg Ala Glu Gln Ala Arg Glu Asp Leu Arg Glu Glu Ile Lys Arg
    130                 135                 140
Gln Glu Ala His Arg Lys Glu Ala Ser Arg Ala Arg Lys Glu Val Arg
145                 150                 155                 160
Glu Glu Thr Lys Asn Gln Glu Val His Arg Met Val Val Gln Gly Gln
                165                 170                 175
```

```
Leu Lys Gly Lys Ile Arg Thr Leu Val Arg Gly Asn Pro Thr Ala Asp
            180                 185                 190
Thr Ser His Leu Val Gly Leu Glu Ser Asp Ser Met Met Arg Trp Leu
        195                 200                 205
Asp Pro Pro Asp Tyr Glu Ser Met Leu Ser Gln Met Val Arg Gln Arg
    210                 215                 220
His Glu Asp Thr Val Leu Trp Ile Glu Lys His Pro Lys Tyr Leu Ser
225                 230                 235                 240
Trp Arg Gln Tyr Ala Asn Trp Ala Arg Asp Ile Leu Trp Ile Tyr Gly
                245                 250                 255
Gly Pro Gly Met Gly Lys Thr Ile Leu Ser Ala Thr Ile Val Glu Asp
            260                 265                 270
Leu Arg Arg Leu His Ile Thr Gln Ser Pro Arg Gln Thr Thr Lys Arg
        275                 280                 285
Tyr Ala Val Cys Phe Phe Phe Phe Asp Ser Ser Asn Phe Phe Glu Gln
    290                 295                 300
Pro Glu Val Val Met Leu Arg Ala Leu Val Ala Gln Leu Leu His Gln
305                 310                 315                 320
Val Asp Lys Pro Asp Pro Leu Asn Gln Ile Tyr Leu Ala Arg Arg Ser
                325                 330                 335
Ala His Ala Ser Leu Thr Glu Leu Arg Glu Ala Phe Ser Thr Leu Val
            340                 345                 350
Ser Asp Cys Ser Gly Val Tyr Val Val Ile Asp Gly Leu Asp Asp Ala
        355                 360                 365
Ala Asn Ala Ser Asp Ala Leu Gln Leu Leu Leu Met Leu Leu Val Gln
    370                 375                 380
Val Ser Pro Val Met Lys Leu Leu Val Thr Ser Arg Pro Glu Pro Asp
385                 390                 395                 400
Ile Arg Arg Phe Phe His Ser His Pro Gln Phe Glu Leu Thr Glu Asp
                405                 410                 415
Ile Thr Gln Pro Asp Val Arg Arg Val Val Thr Thr Arg Val Gln Ser
            420                 425                 430
Ala Cys Glu Asp Lys Lys Ile Arg Val Ser Asp Pro Asn Leu Arg Gln
        435                 440                 445
Glu Ile Val Asp Ala Leu Val Ser Ser Ser Ser Gly Val
    450                 455                 460
```

<210> 39277
<211> 189
<212> PRT
<213> A.fumigatus

<400> 39277

```
Leu Ile Ile Pro Asp Leu Lys Tyr Asp Asp Phe Lys Phe Val Pro Thr
1               5                   10                  15
Pro Ser Gly Asn Gln Ile Tyr Gly Gln Pro Ser Gln Ala Gly His Pro
            20                  25                  30
Gly Phe Trp Asp Arg Leu Asp Thr Asn Thr His Ile Pro Gln Pro Thr
        35                  40                  45
Asn Leu Leu Glu Pro Gly Gln Ile Gln Leu Thr Gly Leu Ala Gln Arg
    50                  55                  60
Thr Arg His Ile Thr Gly Ile Ile Ala Ala Pro Ala Ser Thr Ser Thr
65                  70                  75                  80
Ser Asp Gly Pro Thr Ser Thr Phe Thr Phe Thr Lys Lys Thr Ile Leu
                85                  90                  95
Gln Leu Pro Pro Ser Thr His Leu His Gln Asn Ala Val Arg Val Leu
```

```
            100                 105                 110
Gln Arg Thr Asn Asp Tyr Leu Val Ile Leu Leu Phe Gln Asp Gly Pro
        115                 120                 125
Val His Leu Lys Asn Thr Lys Thr Arg Gly Ser Ala Ser Thr Asn Asp
    130                 135                 140
Thr Glu Thr Glu Asn Leu Val Lys Pro Ile Leu Ile Pro Val Asp Ala
145                 150                 155                 160
Lys Glu Leu Ala Ser Arg Pro Val Ser Pro Leu Lys Ala Gly Asp Val
                165                 170                 175
Asp Asp Ile His Pro Leu Leu Thr Ile Ser Gln Glu Ser
            180                 185
```

<210> 39278
<211> 836
<212> PRT
<213> A.fumigatus

<400> 39278

```
Leu Arg Ser Val Ser Gly Phe Gln His Asn Val His Ser Val Asn Gly
1               5                   10                  15
Ala Asp Glu Gln Leu Ser Ala Arg Phe Leu Trp Ala Thr Met Gln Val
            20                  25                  30
Lys His Leu Gln Thr Leu Arg Val Gln Thr Asp Arg Thr Leu Arg Ala
        35                  40                  45
Ala Val Arg Asn Leu Pro Ser Gly Val Ala Asp Ile Tyr Gly Arg Ile
    50                  55                  60
Leu Ala Lys Ile Asn Ser Tyr Ala Glu Glu Asp Arg Leu Leu Ala Glu
65                  70                  75                  80
Glu Leu Leu Arg Trp Val Val Cys Ala Arg Arg Pro Leu Asn Val Ser
                85                  90                  95
Glu Leu Cys Cys Ala Leu Ala Ile Asp Ile Gly Asp Glu Glu Leu Asn
            100                 105                 110
Leu Asp Asn Val Pro Thr Asn Thr Ser Glu Ile Val Asp Ala Cys Ser
        115                 120                 125
Pro Leu Leu Ser Ile Gly Asp Lys Gly Thr Val Ser Leu Val His Ser
    130                 135                 140
Thr Val Ala Gln Phe Leu Leu Asp Pro Ser Asn Lys Ala Ser Val Pro
145                 150                 155                 160
Met Gly Thr Asp Arg Tyr Phe Ile Glu Gln Thr Asp Ala His Thr Met
                165                 170                 175
Leu Ala Glu Lys Cys Ile Ser Tyr Leu Ser Leu Leu Ser Phe Arg Asn
            180                 185                 190
Arg Ile Ser Gly Thr Gln Thr Leu Ala Lys Ile Thr His Glu Glu Ile
        195                 200                 205
His Ala Phe Pro Leu Leu Glu Tyr Ala Ala Leu Thr Trp Trp Lys His
    210                 215                 220
Val Ala His Ser Ala Val Ser Lys Ala Ser Ala Lys Arg Leu Val Asp
225                 230                 235                 240
Leu Met Phe Asn Phe Ala Lys Ser Ser Gln Gly Leu Thr Trp Leu Glu
                245                 250                 255
Val Ser Ile Thr Leu Ser Arg Ser Leu Glu His Leu His Thr Ile Ser
            260                 265                 270
Met Gln Leu Arg Ala Trp Phe Arg Arg Leu Glu Phe Lys His Ala His
        275                 280                 285
Ile Asp Glu Leu Lys Leu Trp Leu Asp Gly Leu Val Asp Leu Thr Arg
    290                 295                 300
```

```
Val Trp Asp Ser Ile Leu Arg Asp Ser Pro Phe Glu Leu Arg Ser Thr
305                 310                 315                 320
Val Lys Lys Phe Ser Thr Glu Gly Gln Phe Phe Gln Lys His Phe Gly
                325                 330                 335
Ser Asp Phe Ile Gly Glu Ile Gly Pro Pro Pro Ala Ser Leu Pro Arg
            340                 345                 350
Ile Asn Thr Asn Pro Thr Val Ala Glu Gly Asn Ala Phe Asp Ile Leu
        355                 360                 365
Val Asp Asp Glu Glu Gly Tyr Val Leu His Pro Ser Gly Lys Leu Arg
    370                 375                 380
Phe Gln Phe Thr Trp Asp Ile Met Gln Ser Asn Gly Thr Asn Ser Leu
385                 390                 395                 400
Arg Tyr Thr Ile Tyr Ala Glu Ser Pro Ile Thr Arg Arg His Phe Lys
                405                 410                 415
Thr Val Glu Phe Ala His Glu Ile Pro Trp Lys Leu Pro Gln Gly Phe
            420                 425                 430
His Leu Gly Leu His Ser Val Ala Phe Ser Pro Asp Trp Val Tyr Leu
        435                 440                 445
Ala Ile Ala Thr Val Glu Ser Val Arg Gly Leu Pro Thr Gly Arg Arg
    450                 455                 460
Tyr Gln Gly Lys Thr Thr Ile Arg Val Phe Leu Trp Arg Met Arg Asp
465                 470                 475                 480
Leu Asp Glu Ala Gly Glu Glu Leu Leu Phe Asp Leu Pro Trp Ile Ile
                485                 490                 495
Pro Thr Arg Ser Ser Asp Gly Asn Val Tyr Ser Gly Tyr Val Gly Gln
            500                 505                 510
Ala Gln Tyr Asp Ala Phe Arg Gly Ser Arg Cys Ala Val Ala Phe His
        515                 520                 525
Arg Ile Lys Ser Thr Leu Tyr Leu Gln Thr Pro Phe Gly Ala Val Asp
    530                 535                 540
Val Glu Thr Gly Thr Ser Leu Glu His Ser Arg Tyr Leu Gln Ser Val
545                 550                 555                 560
Val Thr Gln Pro Thr Val Thr Gln Cys Thr Phe Ser Pro Asp Gly Arg
                565                 570                 575
Arg Ile Ala Met Val Arg Asn His Thr Asp Phe Glu Ile Ala Asn Ile
            580                 585                 590
Asp Gly Ser Asn Val Cys Ala Thr Lys Leu Val Gly Glu Ile Cys Glu
        595                 600                 605
Ile Leu Ser Ile Ser Arg Thr Gly Arg Tyr Val Ala Ile Cys Leu Asn
    610                 615                 620
Gln Pro Ala Thr Ser Ser Gln Leu Thr Gln Ser Arg Leu Val Val Leu
625                 630                 635                 640
Asp Thr Val Thr Ser Thr Ile Gln Val Leu Leu Thr Gly Thr Gln Glu
                645                 650                 655
Arg Arg Phe Asp Glu Val Ser Phe Lys Leu Arg Gly Trp Leu Ser Trp
            660                 665                 670
Ser Gln Trp Ala Ala Gln Gly Arg Tyr Met Lys Phe Met Pro Lys Gly
        675                 680                 685
Leu Ala Pro Val Arg Pro Asp Arg His Cys Ile Gln Val Tyr Ser Val
    690                 695                 700
Phe Asn Trp Leu Val Gly Gly Ala Ser Ser Glu Leu Tyr Ile Glu Pro
705                 710                 715                 720
Asp Ile Asp His Leu Leu Asp Pro Gln Glu Gln Arg Trp Asp Leu Val
                725                 730                 735
Gln Pro Ala Ala Val Arg Arg Glu Leu Pro Leu Ser Ser Ser Ala Thr
            740                 745                 750
```

```
Tyr Leu Phe Ser Asp Arg Thr Ile Arg Leu Ser Asp Ser Ser Phe Val
        755                 760                 765
Leu Ser Val Gly Phe Ser Pro Glu Asp Glu His Cys Cys Ile Leu Thr
    770                 775                 780
Ser Lys Gln Thr Val Leu Leu Pro Ser Ser Leu Gln Ser Ser Pro Leu
785                 790                 795                 800
Thr Ser Val Pro Pro Thr Ala Asp Lys Gln Gln Lys Thr Thr Tyr Gln
                805                 810                 815
Thr Tyr Thr Arg Leu Phe Asp His Asn Arg Lys Leu Gly Cys Phe Gln
            820                 825                 830
Leu Ala Tyr Gln
        835
```

<210> 39279
<211> 247
<212> PRT
<213> A.fumigatus

<400> 39279

```
Val Gly Pro Pro Cys Ser Phe Gly Asn Pro Leu Thr Cys Arg Ser Gly
1               5                   10                  15
Thr Gln Gly Arg Trp Met Asp Tyr Leu Asp Tyr Lys Thr His Asn Ile
            20                  25                  30
Ala Gln Ser Ile Thr Ala Arg Val Tyr Ile Trp Asp Leu Cys Gly Thr
        35                  40                  45
Pro Arg Leu Val Arg Asp Gln Leu Leu Gln Leu Asp Glu Val Glu Ile
    50                  55                  60
Asn Leu Leu Arg Tyr Glu Gln Tyr Arg Arg Leu Asp Val Ala Phe His
65                  70                  75                  80
Pro Ala Ser Asp Arg Met Ala Ile Phe Asn Val Val Tyr Asn Leu Asp
                85                  90                  95
Leu Ile Thr Ser Ser Ser Met Glu Tyr Gln Ile Tyr His Glu Thr Asn
            100                 105                 110
Lys Phe His Pro Asp Ile Ala Ala Gly Arg Thr Asn Asn Thr Trp Gln
        115                 120                 125
Val Ser Phe Ser Pro Asp Gly Arg Tyr Ile Ala Phe Ala Val Thr Ala
    130                 135                 140
Ser Thr Arg Thr Pro Gly Leu Phe Gly Lys Arg Gly Glu Ile Thr Asn
145                 150                 155                 160
Ala Val Val Leu Phe Glu Thr Asp Lys Pro Ser Thr Pro Leu Cys Ser
                165                 170                 175
Gln Ile Ser Ser His Lys Gly Asp Thr Leu Ala Met Gly Ser Cys Ser
            180                 185                 190
Val Thr Phe His Pro Thr Asp Arg Lys Leu Leu Trp Thr Ser Ser Phe
        195                 200                 205
Val Phe Thr Asp Ala Thr Thr Lys Thr Thr Thr Lys Leu Leu Asp Phe
    210                 215                 220
Ser Leu Lys Pro Tyr Glu Thr Thr Phe Ile Thr Gly Lys Phe Ser Ala
225                 230                 235                 240
Leu His Gln Ser Gly Pro Asn
                245
```

<210> 39280
<211> 86
<212> PRT
<213> A.fumigatus

<400> 39280
Thr Thr Ala Thr Leu Ser Ile Ser Met Leu Pro Leu Val Gln Asp Gly
1 5 10 15
Leu Gln Ile Gly Ile Glu Arg Ile Glu Pro Thr Ala Phe Ile Pro Gln
20 25 30
Tyr Leu Ile Val Leu Asp Gln Pro Leu Leu Asp Ile Leu Pro Lys Val
35 40 45
Leu Leu Ser Phe Gln Val Cys Val Leu Thr Leu Lys Ala Phe Asp Glu
50 55 60
Thr Leu Gly Leu Asn Gln Ile Phe Ser Ser Leu Leu Gly Pro Gln Val
65 70 75 80
Leu Ser Val Gly Val Leu
85

<210> 39281
<211> 243
<212> PRT
<213> A.fumigatus

<400> 39281
Thr Met Asp Pro Arg Thr Ser Gln Ala Arg Pro Asp Thr His Leu Lys
1 5 10 15
Pro Pro Asn Pro His Gln Arg Ala Ser Pro Ser Ser Ser Thr Ser Pro
20 25 30
Ser Pro Thr Pro Arg Ala Pro Val Ala Ala His Asn Thr Ala Thr Val
35 40 45
Ala Glu Ser Val Thr Phe Gln Gly Thr His Pro Ile Ser Val Gly Ala
50 55 60
Gly Thr Val Ile His Pro Arg Ala Arg Ile Tyr Ser Tyr Asp Gly Pro
65 70 75 80
Val Ile Ile Gly Glu Gly Cys Ile Ile Ser Glu Lys Ser Thr Ile Gly
85 90 95
Ile Pro Pro Ser Thr Pro Thr Ser Leu Pro Pro Thr Pro Lys Glu Val
100 105 110
Val Pro Ile Arg Ile Ser Asn Gly Val Thr Ile Gly Pro Leu Val Thr
115 120 125
Val Phe Pro Gly Ala His Ile His Ser Phe Val Thr Val Glu Ser Leu
130 135 140
Ala Ile Ile Asn Arg Arg Val Ser Leu Gly Ala His Ser Lys Val Cys
145 150 155 160
Ser Gly Cys Glu Val Ala Ala Asn Thr Val Ile Lys Asp Trp Thr Val
165 170 175
Val Trp Gly Ser Gly Ala Gly Ser Cys Gln Arg Arg Lys Arg Ala Thr
180 185 190
Gly Lys Met Ser Ser Ser Val Val Ala Gly Gln Asp Leu Ser Ala Pro
195 200 205
Asp Ala Lys Val Val Glu Asp Ala Arg Leu Ile Val Leu Gln Lys Glu
210 215 220
Arg Glu Val Val Ala Arg Leu Ile Gly Ser Ser Ala Ser Ala Gly Gly
225 230 235 240
Arg Arg Lys

<210> 39282
<211> 1376

<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (854),(878)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39282
Lys Glu Arg Asp Thr Phe Arg Ser Met Leu Thr Arg Arg Arg Gln Thr
1 5 10 15
Val Gly Asp Gly Ser Ala Phe Ser Gln Ser Leu Leu Leu Gly Ala Val
20 25 30
Pro Pro Asn Val Asp Asp Gln Gly Arg Asp Val Pro Asp Tyr Ala Glu
35 40 45
Leu Leu Arg Lys Val Gln Ala His Phe Asp Ser Phe Arg Glu Glu Ser
50 55 60
Ala Thr Asp His Ala Ala Leu Lys Gln Gln Val Asn Glu Leu Thr Arg
65 70 75 80
Lys Asn Ser Glu Leu Leu Ser Glu Ile Ser Arg Ser Ser Ser Gln Leu
85 90 95
Gly Ala Ala Thr Gln Arg Ala Glu Leu Leu Gln Ser Asn Phe Asn Met
100 105 110
Leu Lys Asn Glu Asn Ala Glu Leu Gln Lys Arg Tyr Ala Ala Leu Leu
115 120 125
Glu Asn Ala Asn Arg Gln Asp Leu Arg Thr Gln Gln Ala Ala Glu Asp
130 135 140
Leu Val Glu Thr Lys Gly Leu Val Glu Ser Leu Gln Arg Glu Asn Ala
145 150 155 160
Asn Leu Lys Ala Glu Lys Asp Leu Trp Lys Asn Ile Glu Lys Arg Leu
165 170 175
Ile Glu Asp Asn Glu Val Leu Arg Asn Glu Arg Ser Arg Leu Asp Ser
180 185 190
Leu Asn Ala Asn Leu Gln Thr Ile Leu Asn Glu Arg Glu His Thr Asp
195 200 205
Ala Glu Ser Arg Arg Arg Leu Gln Leu Ser Val Glu Ser Leu Glu Ser
210 215 220
Glu Leu Gln Ser Thr Lys Arg Lys Leu Asn Ser Glu Val Glu Glu Ser
225 230 235 240
Lys Lys Ala Ala Leu Arg Arg Glu Tyr Glu His Glu Gln Ser Gln Lys
245 250 255
Arg Ile Asp Asp Leu Val Ala Ser Leu Ser Ser Val Arg Glu Glu Leu
260 265 270
Val Ala Thr Lys Thr Thr Arg Asp His Leu Gln Thr Arg Val Asp Glu
275 280 285
Leu Thr Val Glu Leu Arg Ser Ala Glu Glu Arg Leu Gln Val Val Gln
290 295 300
Ser Arg Pro Ser Ile Ala Ala Ala Pro Ala Glu Ala Ala Ala Ala Ala
305 310 315 320
Glu Glu Gly Val Pro Asp Thr Gly Leu Thr Arg Glu Gln Glu Leu Gly
325 330 335
Ile Gln Val Ser Glu Leu Lys Arg Asp Leu Glu Leu Ala Lys Gly Glu
340 345 350
Leu Glu His Ala Lys Glu Gln Val Glu Val Tyr Lys Thr Ile Ser Gln
355 360 365
Glu Thr Glu Glu Arg Leu Gln Ser Val Thr Glu Thr Gln Glu Gln Tyr

```
    370                 375                 380
Arg Glu Glu Thr Glu Arg Leu Val Glu Glu Lys Glu Lys Lys Ile Gln
385                 390                 395                 400
Asp Leu Glu Ala Arg Ile Glu Glu Ile Ser Ser Glu Leu Ser Thr Thr
                405                 410                 415
Asn Asn Glu Leu Ser Lys Leu Arg Asp Glu Gln Gly Glu Ala Gly Arg
            420                 425                 430
Arg Leu Glu Glu Gln Lys Ala Ala Leu Glu Ala Glu Ile Thr Arg Leu
        435                 440                 445
Lys Glu Glu Asn Glu Arg Gln Ile Ala Ala Ala Gln Phe His Gln Asp
    450                 455                 460
Asp Leu Lys Ala Gln Ala Glu Ile Ala Gln Arg Ala Gln Gln Asn Tyr
465                 470                 475                 480
Glu Ser Glu Leu Leu Lys His Ala Glu Ala Ala Lys Asn Leu Gln Ala
                485                 490                 495
Val Arg Ala Glu Val Asn Gln Leu Lys Leu Glu Leu Val Glu Ser Arg
            500                 505                 510
Thr Gln Ala Asp Thr Tyr Lys Lys Asp Leu Ala Gln Lys Glu Glu Ser
        515                 520                 525
Trp Ser Glu Leu Lys Glu Arg Tyr Glu Ser Glu Leu Thr Glu Leu Gln
    530                 535                 540
Lys Arg Arg Glu Glu Val Leu His Gln Asn Asn Leu Leu His Thr Gln
545                 550                 555                 560
Leu Glu Gly Ile Ser Ser Gln Ile Ala Ala Leu Gln Lys Asp Arg Ala
                565                 570                 575
Asn Ile Pro Glu Ser Glu Gln Asp Glu Gly Thr Thr Ala Pro Asn Leu
            580                 585                 590
Glu Gly Leu Gln Glu Val Ile Lys Phe Leu Arg Arg Glu Lys Glu Ile
        595                 600                 605
Val Asp Val Gln Tyr His Leu Ser Thr Gln Glu Ala Lys Arg Leu Arg
    610                 615                 620
Gln Gln Leu Asp Tyr Thr Gln Ser Gln Leu Asp Glu Ala Arg Leu Lys
625                 630                 635                 640
Leu Glu Gln Gln Arg Arg Ala Ala Ala Asp Ser Glu His Thr Ala Leu
                645                 650                 655
Ser His Asn Lys Leu Met Glu Thr Leu Asn Glu Leu Asn Leu Phe Arg
            660                 665                 670
Glu Ser Ser Val Thr Leu Arg Asn Gln Val Lys Gln Ala Glu Thr Ala
        675                 680                 685
Leu Ala Glu Lys Ser Thr Arg Val Asp Glu Leu Leu Arg Gln Ile Glu
    690                 695                 700
Pro Leu Glu Thr Arg Ile Arg Glu Leu Glu Asn Val Val Glu Thr Lys
705                 710                 715                 720
Asp Gly Glu Met Lys Leu Leu Gln Ala Asp Arg Asp Arg Trp Gln Gln
                725                 730                 735
Arg Thr Gln Asn Ile Leu Gln Lys Tyr Asp Arg Val Asp Pro Ala Glu
            740                 745                 750
Met Glu Gly Leu Lys Glu Lys Leu Ala Ser Leu Glu Lys Glu Arg Asp
        755                 760                 765
Glu Ala Ile Ser Ala Arg Asp Thr Leu Gln Ala Gln Ala Ala Thr Phe
    770                 775                 780
Pro Glu Gln Leu Lys His Ala Glu Asp Arg Thr Gln Glu Leu Arg Thr
785                 790                 795                 800
Lys Leu Thr Glu Gln Phe Lys Ala Arg Ser Lys Glu Leu Thr Gly Arg
                805                 810                 815
Ile Asn Ala Lys Gln Leu Glu Leu Asn Ala Val Ile Gln Glu Lys Glu
```

```
            820                 825                 830
Val Ile Gln Glu Glu Leu Asn Thr Thr Lys Asn Glu Leu Ser Glu Leu
        835                 840                 845
Lys Thr Lys Met Ala Xaa Ser Pro Ser Pro Ser Ser Ala Pro Ala Pro
    850                 855                 860
Ala Pro Thr Ala Pro Thr Val Glu Gln Thr Pro Gly Val Xaa Ser Thr
865                 870                 875                 880
Pro Ala Ser Gln Phe Pro Thr Pro Thr Ser Met Pro Ser Asp Asp Glu
                885                 890                 895
Arg Val Lys Thr Leu Glu Glu Lys Val Arg Arg Leu Glu Ala Ala Leu
            900                 905                 910
Ala Glu Lys Asp Ala Ala Leu Ala Ala Lys Asp Ala Glu Tyr Glu Thr
        915                 920                 925
Lys Ala Asn Glu Arg Val Glu Lys Leu Lys Glu Thr Tyr Asn Lys Lys
    930                 935                 940
Met Ala Glu Val Arg Ala Ala His Arg Gln Glu Val Glu Arg Leu Ser
945                 950                 955                 960
Ala Asn Gln Gln Val Ala Pro Gln Glu Pro Gly Thr Pro Val Ser Lys
                965                 970                 975
Pro Glu Gln Thr Pro Ala Thr Pro Ser Gln Gln Asp Gly Asp Leu Pro
            980                 985                 990
Glu Leu Thr Asp Val Gln Ala Arg Ala Leu Val Ala Lys Asn Glu Thr
        995                 1000                1005
Ile Gln Thr Ile Val Arg Asn Asn Ile Arg Ala Lys Val Ala Lys Glu
    1010                1015                1020
Thr Glu Lys Leu Lys Gln Glu Cys Ala Glu Leu Glu Lys Lys Phe Asn
1025                1030                1035                1040
Glu Glu Lys Glu Ala Leu Lys Lys Ala Tyr Glu Glu Ser Thr Asp Glu
                1045                1050                1055
Lys Val Lys Ser Ala Val Glu Leu Ser Asp Lys Lys Thr Leu Val Arg
            1060                1065                1070
Ile Ser Met Leu Asp Thr Arg Leu Arg Thr Ala Gln Ala Lys Leu Asp
        1075                1080                1085
Val Ile Ala Lys Ala Ala Ala Glu Thr Pro Gln Arg Pro Val Val Glu
    1090                1095                1100
Val Trp Glu Val Ala Lys Thr Thr Lys Ala Pro Pro Val Gln Ala Gln
1105                1110                1115                1120
Gly Ala Lys Pro Thr Ala Thr Ala Pro Ser Ala Pro Thr Ala Pro Thr
                1125                1130                1135
Ala Ala Pro Ala Pro Ala Gln Val Ala Thr Val Pro Pro Pro Ser Ser
            1140                1145                1150
Val Ala Ala Pro Thr Ala Lys Ala Glu Ser Gln Asp Gln Gln Ala Ala
        1155                1160                1165
Ala Pro Ala Pro Ala Gln Gln Thr Thr Ala Ala Pro Pro Thr Ser Ser
    1170                1175                1180
Val Pro Asp Glu Ala Gln Pro Gln Ala Asp Ala Gln Ala Gln Gln Pro
1185                1190                1195                1200
Gln Gln Glu Ala Gly Pro Ala Gln Lys Pro Ala Ser Asn Gln Pro Ala
                1205                1210                1215
Asn Ala Val Ala Gln Ser Gln Asn Lys Gln Gln Pro Ser Ser Leu Pro
            1220                1225                1230
Ser Lys Pro Pro Ala Gly Gly Val Leu Arg Ala Leu Gln Ser Gly Leu
        1235                1240                1245
Pro Val Ala Arg Gly Gly Arg Gly Gly Ala Arg Gly Gly Ser His Gln
    1250                1255                1260
Gln Asn Pro Phe Gly Pro Gln Pro Thr Asp Gln Gln Gln Pro Gln Gln
```

```
1265                1270                1275                1280
Gln Gln Gln Ala Gln Thr Gln Gln Ser Gln Arg Gly Thr Gly Leu Gln
                1285                1290                1295
Arg Gly Arg Gly Gly Arg Gly Gly Ala Gly Arg Gly Gly His Gln Asn
            1300                1305                1310
Val Gln Ala Ser Asn Ala Pro Gln Gly Gln Asn Pro Ser Ser Pro Gly
        1315                1320                1325
Gly Arg Gly Gly Leu Asn Val Gln Ala Arg Gln Phe Val Pro Gln Gly
    1330                1335                1340
Ser Lys Arg Ala Arg Glu Asp Gly Gly Glu Ala Gly Asn Glu Ala Gly
1345                1350                1355                1360
Ala Ser Gly Gly Lys Arg Met Arg Gly Gly Gly His Ala Arg Gly Ser
                1365                1370                1375
```

<210> 39283
<211> 85
<212> PRT
<213> A.fumigatus

<400> 39283

```
Thr Arg Arg His Val His Val Asn Arg Thr Lys Glu Ala Leu Ile Asn
1               5                   10                  15
Gly Gly Ala Tyr His Phe Ser His Gln Glu Asp His Phe Leu Leu Pro
            20                  25                  30
Pro Ala Asp Ala Asp Asp Pro Met Ser Leu Ala Thr Thr Ser Leu Ser
        35                  40                  45
Phe Cys Asn Thr Ile Lys Arg Ala Ser Ser Thr Thr Leu Ala Ser Gly
    50                  55                  60
Ala Asp Lys Ser Cys Pro Ala Thr Thr Asp Glu Leu Ile Phe Pro Val
65                  70                  75                  80
Ala Arg Phe Leu Leu
                85
```

<210> 39284
<211> 278
<212> PRT
<213> A.fumigatus

<400> 39284

```
Ser Leu Ala Arg Leu Lys Ser Ile Ala Tyr Val Pro Leu Pro Thr Cys
1               5                   10                  15
Arg Pro Lys Met Phe Leu Leu Thr Ile Val Ala Val Ser Ser Phe Leu
            20                  25                  30
Val Leu Leu Leu Tyr Lys Ile Leu Ile Ser Pro Tyr Phe Leu Ser Pro
        35                  40                  45
Leu Ser Lys Ile Pro Asn Ala His Phe Thr Ala Pro Ile Ser Asp Tyr
    50                  55                  60
Trp Ile Glu Arg Lys Arg Arg Ser Gly Glu Glu Val Leu Thr Ile Tyr
65                  70                  75                  80
Asn Leu His Arg Glu His Gly Pro Val Val Arg Leu Gly Pro Asn Glu
                85                  90                  95
Leu Ser Val Asn Ser Leu Gly Gly Leu His Val Ile Tyr Thr Gly Ala
            100                 105                 110
Phe Glu Lys His Ser Phe Tyr Arg Asp Thr Phe Val Asn Phe Leu Thr
        115                 120                 125
Asp Asn Leu Val Gly Met Leu Pro Asn Asp Ser His Ala Arg Gln Lys
```

```
    130                 135                 140
Arg Met Leu Ser Lys Ile Tyr Ser Lys Ser Tyr Leu His Glu Ser Val
145                 150                 155                 160
Asp Leu Arg Asn Ala Ser Ser Ile Ile Leu Ser Gln Arg Leu Leu Pro
                165                 170                 175
Met Leu Lys Asn Ala Ala Glu Lys Gly Glu Ala Ile Asn Val Leu Pro
            180                 185                 190
Leu Phe Gln Ala Val Gly Met Asp Phe Thr Ser Ala Phe Leu Phe Gly
        195                 200                 205
Thr Ala Asn Ser Thr Thr Phe Leu Phe Asp Leu Pro Gly Trp Lys Arg
    210                 215                 220
Trp Leu Val Glu Tyr Glu Arg Phe Lys Thr Leu Ser Gly Lys Glu Arg
225                 230                 235                 240
Tyr Leu Gly Phe Ile Glu Arg Trp Cys Leu Ser Leu Cys Ser Arg Val
                245                 250                 255
Gln Ser Asn Glu His Pro Asn Asp Val Pro Val Ala Thr Asn Pro Val
            260                 265                 270
Val Tyr Ser Ser Leu Arg
        275
```

<210> 39285
<211> 209
<212> PRT
<213> A.fumigatus

<400> 39285

```
Thr Leu Glu Lys His Pro Asp Gln Arg Pro Leu Asp Leu Ala Leu Ala
1               5                   10                  15
Ser Glu Leu Leu Asp His Leu Val Ala Gly His Glu Thr Ser Gly Ile
            20                  25                  30
Thr Phe Val Tyr Met Met Trp Glu Leu Ser Lys Arg Pro Arg Leu Gln
        35                  40                  45
Ala Glu Leu Arg Gln Glu Leu Leu Thr Leu Ser Pro Ser Leu Arg Tyr
    50                  55                  60
Pro Leu Val Glu Leu Gly Asp Gly Ser Leu Pro Leu Leu Pro Ser Pro
65                  70                  75                  80
Ala Ala Ile Asp Ser Leu Pro Leu Leu Asp Ala Val Val Arg Glu Thr
                85                  90                  95
Leu Arg Val His Ser Pro Ala Pro Ala Pro Leu Pro Arg Ile Thr Pro
            100                 105                 110
Ser Ser Ser Glu Gly Ile Ala Ile Glu Gly Tyr Asp Arg Ile Pro Gly
        115                 120                 125
Gly Val Lys Val Ser Ser Ser Ser Tyr Thr Leu His Arg Ile Ser Glu
    130                 135                 140
Val Tyr Pro Gln Pro Phe Glu Trp Leu Pro Glu Arg Trp Leu Asp Pro
145                 150                 155                 160
Gly Pro Gly Lys Ile His Asp Met Arg Arg Leu Phe Trp Pro Phe Gly
                165                 170                 175
Ser Gly Gly Arg Met Cys Leu Gly Ser Asn Phe Ala Leu Gln Gly Thr
            180                 185                 190
Ala Pro Phe Arg Ser Leu Pro Phe Leu Ala Ala Tyr Ser Glu Ser Ala
        195                 200                 205
Ser
```

<210> 39286

<211> 64
<212> PRT
<213> A.fumigatus

<400> 39286
Lys Val Ala Pro Val Arg Leu Arg Gln Ile Leu His Gln Ala Leu Phe
1 5 10 15
Lys Arg Val Asn Glu Ile Ile Asp Arg Ala Thr Cys Asp Cys Lys Glu
20 25 30
Gln Thr Ile Phe Gly Cys Leu Lys Glu Leu Arg Arg Ile Asn Val Ser
35 40 45
Pro Leu Asp Leu Ser Ser Ser Lys Ala Ser Val Ala Gln Met Leu Asp
50 55 60

<210> 39287
<211> 124
<212> PRT
<213> A.fumigatus

<400> 39287
Arg His Gly Thr Ile Phe Met Gln Asp Ser Gly His Ile Leu Phe Asp
1 5 10 15
Asn Leu Gly Cys Gly Thr Lys Arg Arg Gln Met Leu Asp Glu Gln Ile
20 25 30
Lys Thr Gly Glu Arg Ser Phe Arg Asp Val Ser Glu Glu Met Trp Gly
35 40 45
Ser Leu Arg Val Pro Phe Glu Asp Gly Phe Glu Val Met Glu Lys Glu
50 55 60
Leu Glu Ile Asp Pro Gly Phe Gln Glu Phe His Glu Phe Cys Ile Ala
65 70 75 80
Asn Gly Ile Asp Phe Asn Val Ile Ser Ala Gly Leu Lys Pro Ile Leu
85 90 95
Arg Arg Val Leu Glu Thr Phe Leu Gly Glu Gln Thr Val Ser His Ser
100 105 110
Pro Leu Ser Ala Ala Trp Met Met Ser Leu Ile Asp
115 120

<210> 39288
<211> 103
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (103)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39288
Pro Ser Ile Arg Cys Leu Asp Asp Val Val Asp Arg Leu Val Lys Ser
1 5 10 15
Ser Ile Gln Ile Val Ala Asn Asp Ala Asp Ile Lys Ser Asp Gly Ser
20 25 30
Glu Trp Lys Pro Ile Trp Arg His Asp Thr Glu Leu Gly His Asp Lys
35 40 45
Ala Leu Ser Val Gln Glu Gly Arg Ala Glu Ala Ala Lys Tyr Cys Ile
50 55 60

```
Asp Gly Gln Ile Pro Leu Ile Val Phe Ile Gly Asp Gly Val Ser Asp
65                  70                  75                  80
Leu Pro Ala Ala Arg Glu Ala Asp Val Leu Phe Ala Arg Lys Gly Leu
                85                  90                  95
Pro Leu Glu Glu Tyr Trp Xaa
            100
```

<210> 39289
<211> 473
<212> PRT
<213> A.fumigatus

<400> 39289

```
Phe Pro Asn Tyr Ser Pro Ile Cys Gly Pro Leu Val Lys Thr Leu Ser
1               5                  10                  15
Arg Pro Glu Leu Asp Ala Tyr Phe Pro Pro Pro Leu Thr Arg Phe Cys
            20                  25                  30
Ser Pro Met Val Thr Asp Gln Ser Ile Lys Leu Ser Tyr Asn Asp Thr
        35                  40                  45
Thr Ala Asp Met Tyr Ser Tyr Ala Asn His Asn Cys Gly Pro Leu Asn
    50                  55                  60
Trp Pro Ser Thr Thr Lys Leu His Glu Ile Thr Trp Tyr Glu Asn Thr
65                  70                  75                  80
Phe Leu Pro Lys Ile Arg Glu Tyr Phe Lys Gly Asp Leu Val Trp Thr
                85                  90                  95
Arg Gly Thr Val Ala Lys Gln Ala Asp Asp Ser Gln Arg Tyr Trp Val
            100                 105                 110
Ile Val Asn Lys Asn Ile Tyr Asp Leu Thr Asp Tyr Phe Tyr Thr Leu
        115                 120                 125
Asp Arg Met Asn Asn Gln Asp Thr Tyr Asn Phe Leu Pro Lys Ser Val
    130                 135                 140
Thr Asp Leu Phe Lys Asn Tyr Pro Gly Thr Asp Val Thr Asp Lys Trp
145                 150                 155                 160
Gly Asp Ser Glu Asp Phe Lys Lys Ser Gln Ile Cys Leu Asp Tyr Val
                165                 170                 175
Phe Tyr Lys Gly Lys Val Asp Phe Arg Asp Thr Pro Arg Cys Thr Val
            180                 185                 190
Asn Asn Trp Ile Leu Leu Ala Phe Thr Ile Leu Ile Cys Ser Val Val
        195                 200                 205
Leu Val Lys Phe Leu Ala Ala Leu Gln Leu Gly Ser Lys Arg Arg Pro
    210                 215                 220
Ala Pro Gln Asp Lys Phe Val Ile Cys Leu Val Pro Ala Tyr Thr Glu
225                 230                 235                 240
Gly Glu Asp Ala Leu Arg Lys Gly Leu Asp Ser Leu Thr Ala Leu Gln
                245                 250                 255
Tyr Asp Asn Lys Arg Lys Leu Ile Phe Val Ile Cys Asp Gly Met Ile
            260                 265                 270
Val Gly Gly Gly Asn Asp Arg Pro Thr Pro Lys Ile Val Leu Asp Ile
        275                 280                 285
Leu Gly Val Asp Pro Lys Ile Asp Pro Pro Ala Leu Pro Phe Lys Ser
    290                 295                 300
Leu Gly Gln Gly Ser Asp Gln Leu Asn Tyr Gly Lys Val Tyr Ser Gly
305                 310                 315                 320
Leu Tyr Glu Tyr Glu Gly Asn Val Val Pro Tyr Ile Val Val Val Lys
                325                 330                 335
Val Gly Lys Glu Ser Glu Gln Asn Arg Pro Lys Pro Gly Asn Arg Gly
```

```
            340                 345                 350
Lys Arg Asp Ser Gln Ile Leu Leu Leu Asn Phe Leu Asn Arg Val His
        355                 360                 365
His Arg Ser Pro Met Ser Pro Leu Glu Leu Glu Met Phe His Gln Ile
    370                 375                 380
Asn Asn Ile Ile Gly Val Asp Pro Glu Leu Tyr Glu Tyr Cys Leu Met
385                 390                 395                 400
Val Asp Ala Asp Thr Ser Val Arg Glu Asp Ser Leu Asn Arg Leu Val
                405                 410                 415
Ala Ala Cys Ala Asn Asp Ala Arg Ile Ala Gly Ile Cys Gly Glu Thr
            420                 425                 430
Ser Leu Gln Asn Glu Glu Arg Ser Trp Trp Thr Met Ile Gln Val Tyr
        435                 440                 445
Glu Tyr Tyr Ile Ser His His Leu Ala Lys Ala Phe Glu Ser Leu Phe
    450                 455                 460
Gly Ser Val Thr Cys Leu Pro Gly Trp
465                 470
```

<210> 39290
<211> 466
<212> PRT
<213> A.fumigatus

<400> 39290

```
His Val Phe Arg Gly Gly Lys Cys Asp Arg Ser Met Thr Leu Val Ser
1               5                   10                  15
Ser Gln Phe Thr Asp Ala Leu Val Ser Phe Cys Met Tyr Arg Leu Arg
            20                  25                  30
Thr Ala Asp Lys Gly Arg Pro Leu Ile Ile Ser Asp Lys Val Ile Glu
        35                  40                  45
Glu Tyr Ala Asp Asn Asp Val Asp Thr Leu His Lys Lys Asn Leu Leu
    50                  55                  60
Ser Leu Gly Glu Asp Arg Phe Leu Thr Thr Leu Met Thr Lys His Phe
65                  70                  75                  80
Pro Thr Met Ser Tyr Lys Phe Ile Pro Asp Ala Tyr Ala Ser Thr Ala
                85                  90                  95
Ala Pro Glu Thr Trp Ser Val Leu Leu Ser Gln Arg Arg Arg Trp Ile
            100                 105                 110
Asn Ser Thr Ile His Asn Leu Val Glu Leu Ala Ala Leu Lys Asp Leu
        115                 120                 125
Cys Gly Phe Cys Cys Phe Ser Met Arg Phe Val Val Leu Val Asp Leu
    130                 135                 140
Ile Gly Thr Leu Ile Leu Pro Ala Thr Cys Val Tyr Ile Gly Tyr Leu
145                 150                 155                 160
Ile Tyr Arg Val Ala Ser His Thr Gly Pro Phe Pro Tyr Ile Ser Leu
                165                 170                 175
Ala Ile Leu Ala Gly Val Tyr Gly Leu Gln Ala Ile Ile Phe Ile Val
            180                 185                 190
Lys Arg Gln Trp Gln His Ile Gly Trp Met Ile Ile Tyr Ile Leu Ala
        195                 200                 205
Phe Pro Ile Tyr Asn Phe Ile Leu Pro Leu Tyr Ala Phe Trp Lys Gln
    210                 215                 220
Asp Asp Phe Ser Trp Gly Ser Thr Arg Ile Val Leu Gly Glu Lys Gly
225                 230                 235                 240
Thr Lys Arg Val Val Ala Val Glu Asp Glu Ala Phe Asp Pro Arg Ser
                245                 250                 255
```

```
Ile Pro Leu Gln Arg Trp Asp Asp Tyr Ala Leu Ala Asn Asn Leu Pro
            260                 265                 270
Gly Arg Arg Gly Asp Tyr Gly Val Ser Gln Glu Lys Met Tyr Ser Arg
        275                 280                 285
Tyr Gly Asp Glu Ala Val Met Glu Met Asp Asp Leu His Ser Thr Tyr
    290                 295                 300
Ser Ser Val Lys Pro Ala Ser Thr Ile Leu Thr Gly Phe Pro Gln Gly
305                 310                 315                 320
Arg His Ser Ser Pro Tyr Met Pro Pro Gln Ser Pro Ala Pro Phe Gly
                325                 330                 335
Gly Asn Ile Pro Gly Asn Arg Asn Ser His Leu Ser Ser Phe Thr Arg
            340                 345                 350
Tyr Thr Asp Asn Pro His Gln Arg Asn Met Ser Met Gly Asn Leu Ser
        355                 360                 365
His Tyr Gln Asp Ser Pro Met Gly Met Ser Arg His Ser Val Gly Leu
    370                 375                 380
Met Gln Ser Thr Asp Asn Leu Leu Gly Val Ala Arg Gln Asn Ser Arg
385                 390                 395                 400
Ser Pro Leu Gly Gly Gly Leu Asn Ser Arg Pro Val Ser Ala Phe Asp
                405                 410                 415
Phe Arg Thr Gly Gly Thr Gly Pro Asp Glu Gly Ala Ile Thr Glu Ala
            420                 425                 430
Ile Arg Ser Cys Leu Ala Glu Val Asp Leu Asp Thr Val Thr Lys Lys
        435                 440                 445
Gln Gly Gln Phe Phe Ser Pro Tyr Ile Lys Trp Tyr Ser Ser Leu Ile
    450                 455                 460
Ala Ser
465
```

<210> 39291
<211> 168
<212> PRT
<213> A.fumigatus

<400> 39291

```
Pro Thr Met Ser Thr Gln Pro Pro Pro Pro Gln Gln Gln Gln Gln Ser
1               5                   10                  15
Pro Thr Ser Ser Pro Thr Leu Ser Gln Arg Thr Leu Glu Ala Lys Ala
            20                  25                  30
Ala Phe Thr Ala Ser Leu Arg Ser Val Gly Ala Asn Tyr Asp Ala Glu
        35                  40                  45
Leu Arg Asp Arg Ala Arg Thr Leu His Gly Asn Ala Ala Ala Leu Asp
    50                  55                  60
Lys Gln Glu Ala Glu Leu Arg Arg Thr Thr Ala Glu Leu Arg Arg Gln
65                  70                  75                  80
Asn Glu Gln Trp Glu Arg Val Ala Asp Thr Ala Arg Glu Gly Leu Lys
                85                  90                  95
Glu Ile Gly Asp Val Gln Asn Trp Ala Glu Leu Ile Glu Arg Asp Leu
            100                 105                 110
Leu Ile Val Glu Glu Met Leu Arg Glu Val Glu Ala Arg Glu Glu Gly
        115                 120                 125
Val Gly Glu Glu Ala Glu Glu Glu Gly Glu Glu Gly Arg Met Met Ile
    130                 135                 140
Asp Gly Lys Gly Lys Gly Lys Gly Asn Gly Lys Gly Glu Glu Glu Gly
145                 150                 155                 160
Lys Gly Gly Trp Leu Arg Trp Trp
```

165

<210> 39292
<211> 141
<212> PRT
<213> A.fumigatus

<400> 39292
Asn Thr Ser Ser Arg Thr Trp Tyr Leu Thr Gln Glu Ala Lys Leu Lys
1 5 10 15
Asn His His His Leu Ser His Pro Pro Phe Pro Ser Ser Ser Pro Leu
20 25 30
Pro Phe Pro Phe Pro Phe Pro Phe Pro Ser Ile Ile Ile Arg Pro Ser
35 40 45
Ser Pro Ser Ser Ser Ala Ser Ser Pro Thr Pro Ser Ser Leu Ala Ser
50 55 60
Thr Ser Leu Asn Ile Ser Ser Thr Ile Asn Lys Ser Leu Ser Ile Asn
65 70 75 80
Ser Ala Gln Phe Cys Thr Ser Pro Ile Ser Leu Arg Pro Ser Arg Ala
85 90 95
Val Ser Ala Thr Leu Ser His Cys Ser Phe Cys Arg Arg Ser Ser Ala
100 105 110
Val Val Arg Arg Ser Ser Ala Ser Cys Leu Ser Ser Ala Ala Ala Phe
115 120 125
Pro Cys Ser Val Arg Ala Arg Ser Arg Ser Ser Ala Ser
130 135 140

<210> 39293
<211> 285
<212> PRT
<213> A.fumigatus

<400> 39293
Pro His Ser Arg Ser Phe Gly Ala Leu Cys Glu Asp Glu Arg Leu Ser
1 5 10 15
Leu Thr Val Thr Lys Asp Asp Phe Ala Arg Met Arg Ile Ile Gly Gln
20 25 30
Phe Asn Leu Gly Phe Ile Leu Ala Thr Arg Pro Ser Glu Asp Gly Ser
35 40 45
Ala Asp Ser Lys Asp Glu Leu Phe Ile Ile Asp Gln His Ala Ser Asp
50 55 60
Glu Lys Phe Asn Phe Glu Arg Leu Gln Ala Glu Thr Val Val Gln Asn
65 70 75 80
Gln Arg Leu Val Gln Pro Lys Arg Leu Asp Leu Thr Ala Val Glu Glu
85 90 95
Glu Ile Val Ile Glu Asn Arg Ala Ala Leu Glu Lys Asn Gly Phe Val
100 105 110
Val Glu Val Asp Asp Ser Gly Asn Glu Pro Ile Gly Gln Arg Cys Lys
115 120 125
Leu Ile Ser Leu Pro Leu Ser Lys Glu Val Val Phe Gly Val Arg Asp
130 135 140
Leu Glu Glu Leu Ile Val Leu Leu Ser Glu Met Pro Ala Thr Asp Ser
145 150 155 160
Arg Gly Ser Ala Met Gln Thr His Ile Pro Arg Pro Ser Lys Val Arg
165 170 175
Lys Met Phe Ala Met Arg Ala Cys Arg Ser Ser Ile Met Ile Gly Lys

```
            180                 185                 190
Ser Leu Thr Gln Thr Gln Met Val Arg Val Val Arg Asn Met Gly Thr
        195                 200                 205
Ile Asp Lys Pro Trp Asn Cys Pro His Gly Arg Pro Thr Met Arg His
    210                 215                 220
Leu Met Thr Leu Gly Gln Trp Asp Glu Trp Asp Glu Tyr Gly Tyr Asp
225                 230                 235                 240
Asn Glu Glu Glu Asp Glu Glu Ser Gly Arg Ile Glu Val Asp Arg Leu
                245                 250                 255
Asp Val Trp Arg Asn Tyr Tyr Gln Glu Met Gly Glu Met Ser Ala Glu
            260                 265                 270
Glu Glu Asp Ala Ala Glu Ala Asp Glu Glu Ala Glu Ile
        275                 280                 285

<210> 39294
<211> 355
<212> PRT
<213> A.fumigatus

<400> 39294
Ile Leu Ala Arg Asp Pro Gln Gln Val Val Arg Thr Leu His Lys Ser
1               5                   10                  15
His Ala Val Pro Thr His Ala His Arg Ala Ile Leu Val Val Ala Glu
            20                  25                  30
Val Ala His Gly His Ile Pro Leu Val Trp Val Val Gly Ile Ser Gly
        35                  40                  45
Lys Ala Arg Lys Val Arg Val Ala Val Ala Arg Asn Val Ser Ala Lys
    50                  55                  60
Trp Ser Trp Arg Leu Arg Trp His Val Arg Thr Arg Val Pro Ala Leu
65                  70                  75                  80
Gly Lys Ser Gly Lys Asp Gly Arg Cys Arg Leu His Arg Gly Ile Gly
                85                  90                  95
Gly Met Lys Ile Ile His Leu His Asp Cys Leu Val Ser Val Pro Ala
            100                 105                 110
Val His Leu Leu Leu Ala Asp Ala Ile Ile Ala Ala Thr Ala Trp Lys
        115                 120                 125
Val Val Arg Gln Gly Val Ile Ile Pro Ala Leu Glu Arg Asn Ala Pro
    130                 135                 140
Arg Ile Glu Cys Phe Ile Leu His Cys Tyr Asn Ser Leu Arg Ala Leu
145                 150                 155                 160
Leu Pro Lys Asp Asn Thr Gly Thr Ala Pro Ala Glu Val Val Leu Phe
                165                 170                 175
Pro Glu Cys Ile Gln Gly Gln Asp Lys Val Val Asp Trp Glu Gly Gln
            180                 185                 190
Asp Val Asp Asn His Pro Pro Asn Met Leu Pro Leu Pro Phe Asp Asp
        195                 200                 205
Glu Asn Asp Gly Leu Glu Thr Val His Thr Cys Gln Asp Ser Glu Gly
    210                 215                 220
Asp Ile Trp Lys Trp Ala Ser Val Thr Gly Asp Thr Val Asp Gln Val
225                 230                 235                 240
Pro Tyr Val Asp Ala Gly Arg Arg Lys Asp Glu Gly Ser Asn Gln Val
                245                 250                 255
Asp Gln Tyr His Lys Ser His Ala Glu Thr Ala Glu Ala Thr Gln Val
            260                 265                 270
Leu Gln Ser Arg Lys Leu Asn Gln Ile Val Asn Arg Arg Val Asp Pro
        275                 280                 285
```

```
Pro Thr Ser Leu Arg Glu Lys Asp Arg Pro Ser Leu Arg Gly Gly Gly
    290                 295                 300
Thr Gly Ile Gly Ile Arg Asn Glu Leu Val Gly His Ser Trp Glu Val
305                 310                 315                 320
Leu Arg His Glu Ser Gly Glu Glu Thr Ile Phe Thr Gln Arg Gln Gln
                325                 330                 335
Val Leu Leu Val Gln Gly Val Tyr Ile Val Val Arg Ile Phe Phe Asn
            340                 345                 350
Asp Phe Val
        355
```

<210> 39295
<211> 1367
<212> PRT
<213> A.fumigatus

```
<400> 39295
Leu Gly Gly Leu Gln Tyr Arg Trp Leu Leu Thr Ser Asn Phe Leu Leu
1               5                   10                  15
Cys Ser Asn Ala Pro Gly Ala Phe Phe His Ser Gly His Ser Ser Ile
            20                  25                  30
Asp Ser Thr Asn Glu Ser Thr Arg Ser Thr Asn Ser Arg Val Ser Leu
        35                  40                  45
Arg Ser Thr Ser Met Gly Asn Leu Ala Lys Ser Asp Tyr Asn His Thr
    50                  55                  60
Pro Pro Asp Gln Thr Asp Phe Leu Ala Pro Val Ser Phe Asp Asp Phe
65                  70                  75                  80
His Asn Ser Ile Met Ala Glu Pro Ser Leu Asn His Phe Pro Met Pro
                85                  90                  95
Gly Thr Ala Val Ser Asn His Thr Gly Ser Pro Leu Ser Gly Pro Phe
            100                 105                 110
Thr Arg Asn Pro Trp Ala Asp Asn Asp Glu Pro Ser Phe Ala Ser Arg
        115                 120                 125
Ser Arg Ser Asn Ser Val Arg Arg Lys Ser Glu Val Ser His Leu Ser
    130                 135                 140
Ser Gln Asn Ser Ser Ala Glu Ser Val Ala Ser Arg Leu Pro Ala Ser
145                 150                 155                 160
Asn Thr Ala Ala Arg Ser Arg Arg Gln Ser Leu Val Gln Asn Ser Ala
                165                 170                 175
Ala Lys Ala Pro Ala Pro Arg Ala Pro Arg Lys Ser Ile Gly Pro Gly
            180                 185                 190
Ser Ile Ala Ala Ala Thr Ser Ala Arg Arg Gln Ser Val Ser Ala Arg
        195                 200                 205
Lys Ala Ser Val Asp Thr Ser Pro Ala Asp His Ala Ser Leu Arg Pro
    210                 215                 220
His Ala Gln Asn Pro Asp Ser Ser Gly Leu Asp Lys Thr Arg Leu Pro
225                 230                 235                 240
Ser Asn Val Arg Asn Met Lys Ala Lys Ser Leu Gln Pro Pro Ser Arg
                245                 250                 255
Glu Pro Gly Asp His Leu Leu Thr Ala Ser Gly Leu Thr Asp His Ser
            260                 265                 270
Arg Ser Cys Ser Thr Asn Ala Val Arg Thr Pro Ile Lys Asn Pro Ala
        275                 280                 285
Gly Ser Ala Thr Thr Pro Ala Ser Ser Ala Lys Arg Val Ser Val Met
    290                 295                 300
Ala Pro His Ala Thr Gly Leu Gly Ala Arg Thr Ile Ser Pro Thr Asp
```

```
305                 310                 315                 320
Ala Arg Arg Met Lys Arg Ile Ser Thr Ala Pro Gln Ala Pro Pro Leu
                325                 330                 335
Pro Tyr Thr Pro Pro Thr Lys Gln Asp Thr Leu Pro Val Arg Pro Arg
            340                 345                 350
Ser Cys Ala Gln Ser Pro Ser Ser Leu Pro Arg Lys Ser Val Thr Pro
        355                 360                 365
Ser Ser Thr Arg Thr Thr Pro Asp Pro Ser Arg Arg Ser Tyr Ser Ser
    370                 375                 380
Gly Leu Ser Leu Ser Ser Asn Thr Ser Tyr Ser Phe Thr Arg Asn Ser
385                 390                 395                 400
Gly Ser Ser Leu Gln Thr Arg Phe Ala Gln Asn Gln Ser Ser Ser Arg
                405                 410                 415
Leu Pro Thr Pro Lys Pro Arg Ala Glu His Met Gly Gly Asn Asn Glu
            420                 425                 430
Glu Val Pro Pro Val Pro Ala Ile Pro Lys Ala Tyr Glu Ser Pro Lys
        435                 440                 445
Gly Asp Gly Asp Phe His Thr Tyr Phe Ala Ser Arg Lys Ser Ser Leu
    450                 455                 460
Pro Leu Asp Ile Gly Leu Pro Lys Pro Lys Ala Asp His Asp Ala Glu
465                 470                 475                 480
Pro Lys Gln Ala Ile Arg Gly Asn Asp Lys Lys Thr Thr Asp His Pro
                485                 490                 495
Ala Glu Arg Ala Met Lys Thr Pro Asp Ala Lys Thr Pro Ala Ser Asn
            500                 505                 510
Phe Gly Lys Lys Asn Leu Gln Pro Leu Lys Leu Pro Pro Leu Asn Leu
        515                 520                 525
Leu Pro Leu Ser Thr Pro Val Ala Ser Lys Ile Glu Ala Leu Lys Asp
    530                 535                 540
Arg Glu Asp Asp Gly Gln Ser Tyr Thr Pro Ser Gly Gln Ala Val Ser
545                 550                 555                 560
Lys Thr Pro Ser Thr Pro Met Thr Ala Ser Lys Ala Asn Phe Ser Phe
                565                 570                 575
Arg Asp Glu Asp Asp Thr Met Gly Phe Thr His Ala Arg Ser Ser Thr
            580                 585                 590
Ser His Phe Val Leu Ser Thr Ser Thr Val Ala Pro Leu Arg Thr Ala
        595                 600                 605
Ser Ser Ser Ser Ala Leu Ala Ser Phe Asp Asn Asn Thr Thr Gly Gly
    610                 615                 620
Ala Arg Thr Ile Ser Pro Tyr Val Ser Tyr Thr Leu Pro Lys Ser Ser
625                 630                 635                 640
Ser Asp Phe Ser Asn Leu Gln Gln Lys Ala Asn Thr Ser Gly Asp Tyr
                645                 650                 655
Ser Pro Arg Ile Ser Gln Ala Tyr Lys Leu Thr Gly Pro Arg Pro Gln
            660                 665                 670
Thr Gln Ser Ser Ala Phe Ser Ser Asn Ala Glu Thr Ile Ser Gln Leu
        675                 680                 685
Ser Thr Pro Ser Asp Pro Asp Asn Asn Ser Val Pro Gly Ser Ser Ile
    690                 695                 700
Phe Asn Lys Val Thr Leu Thr Gly Lys Arg Ser Asp Ser Lys Ser Gln
705                 710                 715                 720
Arg Ser Thr Gly Ala Asp Leu Asp Pro Ala Lys Gln Met Pro Pro Pro
                725                 730                 735
Arg Leu Pro Ala Ser Ala Thr Trp Asn Asn Leu Ser Thr Val Lys Gly
            740                 745                 750
Ser Ser Pro Thr Leu Lys Pro Ala Tyr Val Gln Ala Arg Arg Gln Ser
```

```
        755                 760                 765
Ser Ile Ser Gly Thr Ser Val Ser Thr Met Arg Asn Gln Ser Val Ser
    770                 775                 780
Ser Glu Gln Ser Leu Ala Leu Glu Pro Ser Val Ser Asn Glu Ser Gly
785                 790                 795                 800
Glu Ser Asn Thr Ala Ser Leu Arg Pro Gly Ser Ser Val Phe Ser Pro
                805                 810                 815
Met His Lys Met Ile Asn Ser Ala Lys Ser Ser Thr Ala Ala Thr Pro
            820                 825                 830
Arg Gln Gln His Glu Ser Asn Pro Asp Ser Asp Ile Leu Ala Ala Asp
        835                 840                 845
Glu Glu Met Arg Arg Leu Ala Ser Lys Arg Lys Asp Phe Glu Thr Ala
    850                 855                 860
Ala Arg Asn Leu Asp Glu Leu Arg Arg Lys Ala Gly Pro Lys Glu Arg
865                 870                 875                 880
Val Ser Pro Ala Gln Ala Leu Lys Met Ala Asn Leu Asn Ile Phe Glu
                885                 890                 895
Arg Gly Glu Ile Ile Asp Phe Lys Asp Ile Tyr Phe Cys Gly Thr Gln
            900                 905                 910
Asn Ala Lys Lys His Val Gly Asp Leu Asn Ala Gln Ala Ala Asn Phe
        915                 920                 925
Gly Tyr Asp Asp Asp Arg Gly Asp Tyr Asn Ile Val Ile Gly Asp His
    930                 935                 940
Leu Ala Tyr Arg Tyr Glu Val Leu Asp Val Leu Gly Lys Gly Ser Phe
945                 950                 955                 960
Gly Gln Val Val Arg Cys Ile Asp His Lys Thr Gly Ala Leu Val Ala
                965                 970                 975
Val Lys Ile Ile Arg Asn Lys Lys Arg Phe His Gln Gln Ala Leu Ile
            980                 985                 990
Glu Val Asn Leu Leu Gln Lys Leu Lys Glu Trp Asp Pro His Arg Arg
        995                 1000                1005
His Ser Val Val Asn Phe Thr Gln Ser Phe Tyr Phe Arg Gly His Leu
    1010                1015                1020
Cys Ile Ser Thr Glu Leu Leu Gly Met Asn Leu Tyr Glu Phe Ile Lys
1025                1030                1035                1040
Ala His Asp Phe Lys Gly Phe Ser Leu Lys Leu Ile Arg Arg Phe Thr
                1045                1050                1055
Lys Gln Ile Leu Gly Thr Leu Thr Leu Leu His Thr Lys Lys Val Ile
            1060                1065                1070
His Cys Asp Leu Lys Pro Glu Asn Ile Leu Leu Val His Pro Met Ser
        1075                1080                1085
Ser Glu Ile Arg Val Ile Asp Phe Gly Ser Ser Cys Phe Glu Asn Glu
    1090                1095                1100
Lys Val Tyr Thr Tyr Ile Gln Ser Arg Phe Tyr Arg Ser Pro Glu Val
1105                1110                1115                1120
Ile Leu Gly Met Ser Tyr Gly Met Pro Ile Asp Met Trp Ser Leu Gly
                1125                1130                1135
Cys Ile Leu Ala Glu Leu Tyr Ser Gly Tyr Pro Ile Phe Pro Gly Glu
            1140                1145                1150
Asn Glu Gln Glu Gln Leu Ala Cys Ile Met Glu Val Phe Gly Pro Pro
        1155                1160                1165
Glu Lys His Leu Ile Glu Lys Ser Thr Arg Lys Lys Leu Phe Phe Asp
    1170                1175                1180
Ser Leu Gly Lys Pro Arg Leu Thr Val Ser Ser Lys Gly Arg Arg Arg
1185                1190                1195                1200
Arg Pro Ser Ser Lys Asp Leu Lys Gln Val Leu Lys Cys Asp Asp Asp
```

```
                1205                1210                1215
Ala Phe Leu Asp Phe Ile Ser Arg Cys Leu Arg Trp Asp Pro Ala Arg
            1220                1225                1230
Arg Leu Thr Pro His Asp Ala Leu Arg His Glu Phe Ile Thr Gly Ile
        1235                1240                1245
Lys Pro Ala Ser Arg Ser Arg Ser Tyr Gly Met Ala Ser Leu Ser Asn
    1250                1255                1260
Lys Arg Ala Thr Thr Leu Ser Asn Pro Thr Ala Arg Pro Leu Pro Glu
1265                1270                1275                1280
Pro Pro Gly Thr Ser Leu Lys Asn Gly Thr Phe Ile Arg Ser Arg Asp
                1285                1290                1295
Ile Ser Gly Ser Ser Pro Val Lys Ala Thr Ala Val Gly Lys Arg His
            1300                1305                1310
Ser Thr Val Ser Gly Leu Gln Pro Ser Thr Pro Ala Lys Arg Gly Thr
        1315                1320                1325
Thr Val Pro Ser Met Pro Gly Ser Ala Leu Pro Arg Val Ala Ala Arg
    1330                1335                1340
Ser Ile Ser Gly Lys Pro Asp Leu Ala Thr Ala Ala Ala Ala Thr Ser
1345                1350                1355                1360
Leu Val Ser Asn Leu Ala Glu
                1365
```

<210> 39296
<211> 153
<212> PRT
<213> A.fumigatus

<400> 39296

```
Tyr Arg Phe Phe Arg Ser Gly Ser Arg Asn Asn Gln Ser Pro Arg Thr
1               5                   10                  15
Glu Ser Phe Pro Ala Gln His Val Pro Cys Lys Cys Leu Ala Gly His
            20                  25                  30
Leu Gln Tyr His Arg Ser Thr Pro Ala His Ile Asn Pro Ala His Leu
        35                  40                  45
Leu Ala Asn Pro Thr Ala Leu Thr Glu Pro Tyr Ser Val Asp Thr Leu
    50                  55                  60
Phe Thr Arg Asn Thr Pro Gln Cys Phe Thr Ile Ser Pro Ser Phe Thr
65                  70                  75                  80
Gly Thr Leu Pro Phe Ala Gly Asp Leu Pro Leu Ser Trp Val Tyr Ser
                85                  90                  95
Arg Pro Ala Ala Ser Thr Ala Thr Ser Leu Ala Ala Thr Thr Ile Val
            100                 105                 110
Ala Ala Leu Phe Thr Ser Leu Ser Leu Ser Ala Ser Ala Ala Thr Thr
        115                 120                 125
Thr Thr Ala Ala Ser Ala Phe Ser Ala Gln Arg Ala Gln Ala Arg Arg
    130                 135                 140
Arg Ser Ser Arg Ala Arg Pro Ile Gln
145                 150
```

<210> 39297
<211> 708
<212> PRT
<213> A.fumigatus

<400> 39297

```
Phe Leu Gly Ser Ser Phe Leu Phe Ser Phe Cys Leu Leu Ser Ile Met
```

```
1               5                   10                  15
Ser Ala Asp Pro Pro Glu Asn Gly Trp Pro Ser Lys Glu Asp Glu Ser
            20                  25                  30
Leu Ser Ser Ile Asp Ser Asn Ala Arg Pro Arg Arg Ala Ser Ala Thr
        35                  40                  45
Thr Arg Arg Ser Arg Arg Lys Lys Asp Asp Asp Ala Asp Val Thr Gln
    50                  55                  60
Lys Asn Leu Ala Arg Ser Lys Pro Gln Lys Asp Asn Asn Asn Asn Asn
65                  70                  75                  80
Asn Ser Lys Asp Gly Ala Lys Asp Ala Lys Glu Lys Ser Lys Pro Arg
                85                  90                  95
Gly Ser Arg Arg Gln Arg Glu Lys Ser Thr Ser Thr Asn Pro Asn Asn
            100                 105                 110
Ser Thr Ala Thr Pro Ala Ser Ser Ser Asn Ser Ile Asn Asp Asn Pro
        115                 120                 125
Ser Thr Thr Ala Pro Leu Asp Gln Asn Ser Ser Asn Asn Ser Arg Lys
    130                 135                 140
Lys Pro Lys Leu Glu Pro Thr Pro Pro Asp Glu Ile Pro Lys Ser Ile
145                 150                 155                 160
Ser Val Ser Ser Ile Thr Thr Pro Ser Ala Pro Ala Pro Ala Leu Ala
                165                 170                 175
Ser Thr Thr Pro Thr Thr Ser Thr Gly Arg Ser Pro His Leu Thr Ala
            180                 185                 190
Ser Ser Ala Leu His Leu His Gln Pro Pro Gln His Glu His Pro His
        195                 200                 205
Gln Gln Gln His Gln His Gln Leu Asn Pro Ser Ser Ser Leu Pro Pro
    210                 215                 220
Tyr Ser Asn Ser Ile Pro Thr His Ala Pro Ser Pro Ala Tyr Ala Met
225                 230                 235                 240
Asn His Gln Ser Leu Pro Pro Pro Arg Pro Gln Ser Gln Pro Pro Pro
                245                 250                 255
Pro Ala Pro Pro Gln Arg Arg Ser Gly Gln Asn Tyr Asp Pro Ile Arg
            260                 265                 270
Ser Ala Phe Asp Thr Ala Ser Ser Ala Pro Ala Pro Ala Thr Thr Ser
        275                 280                 285
Pro Pro Ala Gln Asn Pro Ser Pro Arg Ser Thr Phe Arg Ala Ser Ala
    290                 295                 300
Ser Pro Ala Ile Ser Ser Ile Ile Asp Pro Pro Gln Pro Thr Ser Thr
305                 310                 315                 320
Gln His Ile Tyr Ser Pro Ile Pro Arg Pro Ser Pro Ser His Ile Pro
                325                 330                 335
Ser Thr Leu Ser Ser Pro Gly Ile His Pro Asn Ala Ser Gln Ser Ala
            340                 345                 350
His Pro Ser Leu Ala Pro Ser Pro Leu Pro Ala Thr Ser Pro Ser His
        355                 360                 365
Gly Ser Ile Leu Ala Pro Gln His Pro Leu Pro Leu Ala Ser Gln Pro
    370                 375                 380
Gln Gln Ser Ser Pro Pro Tyr Ser His Arg Ser Pro Tyr Pro Pro Gln
385                 390                 395                 400
Gln Gln Leu Pro Gln Pro Gln Pro Pro Arg Ser Pro Arg Asn Glu His
                405                 410                 415
Lys Pro Val Ala Ala Ala Pro Glu Pro Val Pro Ser Ser Glu Ala Pro
            420                 425                 430
Pro Lys Ser Pro Pro Lys Gln Glu Ala Glu Pro Pro Val Pro Pro Thr
        435                 440                 445
Lys Gln Ala Leu Thr Lys Leu Ala Ser Pro Pro Glu Glu Pro Ala Ala
```

```
    450                 455                 460
Met Asp Val Asp Thr Asp Glu Pro Ala Gln Pro Asn Ala Glu Ala Lys
465                 470                 475                 480
Ala Pro Lys Lys Glu Lys Gly Ser Thr Ala Thr Thr Ala Thr Ala Pro
                485                 490                 495
Ser Ser Asn Ala Ala Ser Pro Lys Pro Ala Arg Pro Val Lys Glu Ala
            500                 505                 510
Ala Pro Pro Leu Pro Gln Gly Ser Gly Leu Ile Ser Asn Ala Leu Phe
        515                 520                 525
Gly Thr Asp Asp Thr Arg Ser Ser Gly Ser Ser Arg Thr Ser Pro Asn
    530                 535                 540
Ile Ile Leu His Ile Pro Leu Gln Arg Asp Gly Asn Gln Ile Ile Asn
545                 550                 555                 560
Phe Ala Arg Met Ala Glu Glu Gln Tyr Gly Phe Ala Ala Leu His Pro
                565                 570                 575
Arg Leu Ala Ala His Lys Glu Arg Leu Ala Arg Val Ala Ala Ala Gly
            580                 585                 590
Ala Ala Leu Glu Arg Asn Glu Lys Gly Gly Lys Gly Leu Ser Ala Gly
        595                 600                 605
Glu Ser Ala Asp Glu Asp Leu Ser Leu Asp Val Asp Arg Asp Ser Asp
    610                 615                 620
Leu Asp Gly Asp Val Ala Met Gly Gly Val Gly Val Asn Ala Ala Ala
625                 630                 635                 640
Ala Thr Asn Gly Ala Thr Gly Thr Asp Ala Ser Asp Gly Lys Lys Lys
                645                 650                 655
Arg Arg Lys Lys Lys Met Glu Glu Tyr Asp Arg Asp Asp Pro Phe Val
            660                 665                 670
Asp Asp Ser Glu Leu Ala Trp Gln Glu His Ala Ala Ala Ser Lys Asp
        675                 680                 685
Gly Phe Phe Val Tyr Ser Gly Pro Leu Val Pro Glu Gly Glu Lys Val
    690                 695                 700
Gln Val Glu Arg
705
```

<210> 39298
<211> 77
<212> PRT
<213> A.fumigatus

```
<400> 39298
Ala Pro Ser Arg Pro His Leu Leu Leu Leu Leu Arg Ser Arg Gln Arg
1               5                   10                  15
Arg Arg Arg Arg Gln Leu Ala Ala Leu Arg Thr Ser Gln Pro His Pro
            20                  25                  30
His Tyr Thr Ser Thr Asn Leu Leu Ser Met Ser Thr Arg Thr Ser Asn
        35                  40                  45
Ser Thr Ser Thr Ser Ser Ile Pro His Pro Leu Ser Leu Pro Thr Arg
    50                  55                  60
Ile Arg Ser Arg Leu Met Arg Arg Pro Pro Leu Met Arg
65                  70                  75
```

<210> 39299
<211> 141
<212> PRT
<213> A.fumigatus

<400> 39299
Pro Arg Ser His Asn Asn Arg Arg Arg Pro Ile His Ile Ala Leu Pro
1 5 10 15
Ile Arg Leu Ser Ser Asn Tyr His Asn Arg Ser Leu Arg Val Leu Arg
20 25 30
Ala Thr Ser Thr Ser Pro Ser Pro Gln Leu Gln Ser Pro Ser His Pro
35 40 45
Val Arg His Pro Arg Asn Arg Leu Arg Ser Arg Arg Gln Ser His Pro
50 55 60
Phe Arg Leu Arg Asn Arg Pro Ser Pro Asn Ser Pro Leu Pro Gln Arg
65 70 75 80
Ser Gln Pro Arg Trp Met Trp Ile Arg Met Asn Leu Leu Ser Pro Met
85 90 95
Gln Lys Pro Arg Leu Pro Arg Lys Lys Lys Asp Gln Leu Pro Pro Leu
100 105 110
Pro Pro Pro Leu Pro Pro Thr Arg His Arg Arg Ser Pro Arg Val Leu
115 120 125
Ser Arg Lys Arg Pro Pro Pro Tyr Pro Arg Ala Pro Gly
130 135 140

<210> 39300
<211> 139
<212> PRT
<213> A.fumigatus

<400> 39300
Gln Leu Leu Thr Met Ile Asp Arg Ala Asp Gly Thr Ile Lys Arg Gly
1 5 10 15
Arg Gly Arg Gly Arg Gly Gly Arg Ser Arg Gly Gly Ser Ser Thr His
20 25 30
Gln Val Pro Ile Ala Ala Ala Val Pro Ile Ser Gln Glu Thr Gly Leu
35 40 45
Pro Leu Arg Gly Pro Gly Ser Arg Gly Gly Ser Thr Thr Arg Arg Leu
50 55 60
Arg Pro Ser Lys Pro Arg Gln Gln Ala Glu Gln Asp Lys Gln Gly Ala
65 70 75 80
Ser Ser Ala Thr Ser Gln Gly Arg Gly Gly Gly Gln Ala Gly Arg Gly
85 90 95
Gly Gly Ala Ala Gly Thr Arg Gly Gly Lys Thr Pro Ser Met Leu Glu
100 105 110
Leu Ala Pro Ala Pro Arg Pro Ser Leu Ala Pro Ala Pro Pro Gly Pro
115 120 125
Ser Pro Leu Ala Gly Pro Glu Leu Val Ser Lys
130 135

<210> 39301
<211> 195
<212> PRT
<213> A.fumigatus

<400> 39301
Leu Gln Arg Ile Tyr Arg Ser Leu Asp Arg Ile Ser Lys Asp Phe Gly
1 5 10 15
Pro Val Arg Val Asp Val Leu Gly Lys Ile Thr Glu Ser Val Leu Ala
20 25 30
Gly Leu Val Tyr Leu Tyr Glu Ala His Arg Ile Met His Arg Asp Ile

```
        35                  40                  45
Lys Pro Ser Asn Ile Leu Val Asn Ser Arg Gly Asn Ile Lys Leu Cys
    50                  55                  60
Asp Phe Gly Val Ala Thr Glu Thr Val Asn Ser Ile Ala Asp Thr Phe
65                  70                  75                  80
Val Gly Thr Ser Thr Tyr Met Ala Pro Glu Arg Ile Gln Gly Gly Ala
                85                  90                  95
Tyr Thr Val Arg Ser Asp Val Trp Ser Val Gly Leu Thr Val Met Glu
            100                 105                 110
Leu Ala Val Gly Arg Phe Pro Phe Asp Thr Ser Asp Ser Ser Ala Gly
        115                 120                 125
Asp Arg Ala Ser Ala Gly Pro Met Gly Ile Leu Asp Leu Leu Gln Gln
    130                 135                 140
Ile Val His Glu Pro Ala Pro Lys Leu Pro Lys Ser Asp Ala Phe Pro
145                 150                 155                 160
Pro Ile Leu His Glu Phe Val Ala Lys Cys Leu Leu Lys Lys Pro Glu
                165                 170                 175
Glu Arg Pro Thr Pro Arg Glu Leu Tyr Val Ser Pro Cys Leu Leu Ala
            180                 185                 190
Cys Arg Phe
        195
```

<210> 39302
<211> 79
<212> PRT
<213> A.fumigatus

<400> 39302

```
Leu Gln Ile Ile Arg Val Asp Ala Lys Glu Asn Val Arg Lys Gln Ile
1               5                   10                  15
Leu Arg Glu Leu Gln Val Gly His Asp Cys Asn Ser Pro His Ile Val
            20                  25                  30
Thr Phe Tyr Gly Ala Phe Gln Asn Glu Ala Arg Asp Ile Val Leu Cys
        35                  40                  45
Met Glu Tyr Met Asp Cys Gly Tyr Val Ser His Lys Glu Ser Ser Lys
    50                  55                  60
Pro Gly Asn Ala Ile Phe Ser Arg Thr Leu Thr Pro Ala Asp Ile
65                  70                  75
```

<210> 39303
<211> 168
<212> PRT
<213> A.fumigatus

<400> 39303

```
Thr Asp Asn Ser Ala Phe Ile Ile Pro Ile Gly Leu His Asn Pro Gln
1               5                   10                  15
Thr Pro Ser His Thr Ile Ile Asn Tyr Ile Met Pro Pro Tyr Thr Arg
            20                  25                  30
Thr Met Met Gly Thr Ser Leu Tyr Ile Ile Glu Lys Gln Ser Leu Asp
        35                  40                  45
Phe Ala Ser Ala Glu Lys Pro Val Met Arg Gln Glu Gly His Phe Asp
    50                  55                  60
Thr Ser Ser Gly Pro Ala Ser Gly Leu Gly Pro Gly Gly Ala Gly Ala
65                  70                  75                  80
Lys Leu Gly Arg Gly Ala Gly Ala Ser Ser Ser Ile Asp Gly Val Phe
```

```
                85                  90                  95
Pro Pro Arg Val Pro Ala Ala Pro Pro Pro Arg Pro Ala Cys Pro Pro
            100                 105                 110
Pro Arg Pro Cys Asp Val Ala Glu Glu Ala Pro Cys Leu Ser Cys Ser
        115                 120                 125
Ala Cys Cys Arg Gly Leu Leu Gly Arg Arg Arg Arg Val Val Leu Pro
    130                 135                 140
Pro Arg Asp Pro Gly Pro Arg Ser Gly Arg Pro Val Ser Trp Glu Met
145                 150                 155                 160
Gly Thr Ala Ala Ala Ile Gly Thr
                165
```

<210> 39304
<211> 80
<212> PRT
<213> A.fumigatus

<400> 39304

```
Pro Tyr Asp Leu Thr Asp Met Ser Cys Ala Tyr Phe Ser Ala Leu Met
1               5                   10                  15
Tyr Tyr Tyr Ser Ser Tyr Ser Leu Tyr Ser Arg Thr Phe Pro Arg Trp
            20                  25                  30
Leu Leu Ser Ala Leu Phe Met Ser Lys Glu Phe Arg Cys Ser Leu Tyr
        35                  40                  45
Ser Tyr Gly Val Arg Trp Ala Phe Gly Phe Leu Leu Ser Tyr Arg Gly
    50                  55                  60
Ser Val Pro Lys Cys His Arg Phe Met Met Glu Leu Ile Ile Tyr Glu
65                  70                  75                  80
```

<210> 39305
<211> 96
<212> PRT
<213> A.fumigatus

<400> 39305

```
Phe Leu Cys Cys Gly Tyr Lys Phe Pro Lys Ala Gln Trp Asp Asp Ser
1               5                   10                  15
Leu Arg Ala Val His Asp Gly Asn Leu Trp Cys Ser Gly Gly Ile Thr
            20                  25                  30
Asn Gly His Asp Leu Ile Ala Met Tyr Leu Arg Thr Ile Val Ala Glu
        35                  40                  45
Pro Leu Val Lys Thr Ile Leu Gly Met Ser Asp Val Pro Gln Arg Ser
    50                  55                  60
Leu Lys Tyr Asp Ser Ala Pro Thr Thr Asp Asn Leu Phe Phe Leu Trp
65                  70                  75                  80
Gln Val Leu Arg Ala Leu Pro Ser Met Leu Phe Arg Ser Ile Lys Ala
                85                  90                  95
```

<210> 39306
<211> 61
<212> PRT
<213> A.fumigatus

<400> 39306

```
Ile Pro Thr Phe Cys Gln Phe His Leu Asn Leu Ala Arg Val Trp Thr
1               5                   10                  15
```

```
Leu Asp Ala Ile His Ser Arg Val Ser Glu Glu Leu Gly Ala Ile Ile
            20                  25                  30
Ala Pro Arg Ser Ile Thr Pro Pro Lys Ala Ile Tyr Pro Ser His Lys
        35                  40                  45
Leu Leu Leu Thr Pro Phe Arg Pro Lys Ser Leu Thr Asp
    50                  55                  60
```

<210> 39307
<211> 169
<212> PRT
<213> A.fumigatus

<400> 39307

```
Gly Ser Ser Leu Cys Phe Arg Phe Gln Gly Ala Asp Ile Leu Asp Pro
1               5                   10                  15
Ser Gly His Tyr Asp Ile Leu Tyr Arg Leu Glu Pro Thr Val Asn Met
            20                  25                  30
Glu Pro Val Val Asn Tyr Gln Phe Gly Met Thr Thr Asn Tyr Ser Pro
        35                  40                  45
Trp Asp Gln Gly Ala Leu Ser Phe Asp Val Asn Ser Ser Leu Met Ser
    50                  55                  60
Ile Pro Gly Leu Met Met Asp Pro Ser Phe Gly Leu Ala Pro Pro Ala
65                  70                  75                  80
Pro Ala Ala Ile Ser Pro Ala Met Ser Pro Ala Pro Pro Ser Pro Tyr
                85                  90                  95
Arg Val Ser Pro Pro His Glu Val Tyr Gln Pro Ser Met Pro Ser Pro
            100                 105                 110
Pro Ala Ala Ile Pro Ala Thr Ser Pro Pro Pro Pro Arg Met Ser Gly
        115                 120                 125
Pro Pro Pro Pro Met Ser Ser Leu Pro Ser Arg Ser Ser Asp Gly Pro
    130                 135                 140
Gln Ile Arg Leu Asn Pro Leu Val Met Lys Gln Asn Leu Ser His Ser
145                 150                 155                 160
Leu Pro Val Thr Thr Pro Phe Lys Lys
                165
```

<210> 39308
<211> 767
<212> PRT
<213> A.fumigatus

<400> 39308

```
Pro Pro Trp Thr Ser Phe Val Leu Pro Arg Val Gln Val Thr Gln Ala
1               5                   10                  15
Gln Thr Arg Ile Asn Thr Ser Leu Leu Asp Leu Thr Leu Asp Asn Leu
            20                  25                  30
Ala Val Tyr Ser Val Ala Ala Met Ala Tyr Ala Thr Thr Ser Ser Pro
        35                  40                  45
Ala Ala Leu Asn Gly Asp Ala Glu Ser Ser Leu Asn Ile Asn Asn Ser
    50                  55                  60
Leu Pro Asn Pro Pro Lys Leu His His Val Ile Lys Ser Phe Ser Pro
65                  70                  75                  80
Ala Thr Gln Thr Ser Ser Thr Thr Ser Tyr Ile Ser Ser Leu Thr Thr
                85                  90                  95
Thr Pro Ser Ser Leu Phe Pro Ala Ser Asn His Ser Asn Ala Ser Ser
            100                 105                 110
```

```
Pro Ser Gly Thr Pro Leu Gln Ile Ala Thr Asp Ala Leu Gln Gly Arg
        115                 120                 125
Leu Ser Thr Phe Pro Pro Val Ser Leu Ser Ser Phe Glu Leu Gly Glu
    130                 135                 140
Ser Met Met Ala Val Pro Gly Asn Pro Ala Thr Ser Asn Val Asp Ser
145                 150                 155                 160
Val Ser Pro Asn Pro Asn Lys Gly Ala Gly Leu Met Arg Arg Ile Ser
                165                 170                 175
Arg Gly Ala Ala Ser Lys Leu Thr Arg Arg Arg Gln Ser Ala Thr His
            180                 185                 190
Ser Asp Lys Arg Asp Arg Ser Ser Gly Pro Val Ile Met Arg Arg Arg
        195                 200                 205
Ser Asp Ser Lys Thr Ala Ala Gln Thr Gly Arg Glu Cys Ala Leu Asp
    210                 215                 220
Ser Ser Asn Glu Glu Asp Gly Asn Asp Ala Val Asp Ser Leu Gly Val
225                 230                 235                 240
Trp Cys Gly Ser Glu Ala Pro Ser Leu Ser Thr Asp Ala Ser Met Met
                245                 250                 255
Ala Ser Arg Asn Val Gly Ala Val Ala Pro Lys Val Asp Ser Ala Ile
            260                 265                 270
Gln Arg Gly Thr Val Leu Thr Lys Val Thr Lys Lys Arg Lys Lys Gln
        275                 280                 285
Val Arg Phe Phe Leu Asp Leu Asp Ala Gly Lys Val Tyr Trp Asp Leu
    290                 295                 300
Ser Asn Pro Ala Lys Arg Phe Tyr Ile Asp Asp Ile Lys Glu Val Arg
305                 310                 315                 320
Val Gly Val Asp Ala Arg Asn Tyr Arg Glu Glu His Gln Val Pro Gln
                325                 330                 335
Asp Val Glu Gly Arg Trp Phe Thr Ile Val Ile Ala Asp Pro Glu Lys
            340                 345                 350
Ser Lys Gly Arg Ser Val Lys Thr Leu His Leu Ile Ala Pro Asn Asp
        355                 360                 365
His Ile Leu Glu Leu Trp Thr Thr Thr Leu Glu Asn Ile Ser Gln Tyr
    370                 375                 380
Arg Ile Asn Leu Met Ala Gly Leu Ala Gly Ser Gly Gln Ser Glu Thr
385                 390                 395                 400
Val Leu Lys Val His Trp Gln Arg Glu Met Ser Arg Leu Phe Pro Gln
                405                 410                 415
Gly Leu Ala Pro Gly Glu Glu Glu Ser Leu Asp Phe Gly Ala Val Glu
            420                 425                 430
Thr Val Cys Arg Ser Leu His Ile Asn Cys Ser Lys Asn Met Leu Arg
        435                 440                 445
Ala Gln Phe Ser Lys Ala Asp Leu Gly Asn Lys Gly Arg Leu Asn Phe
    450                 455                 460
Ser Glu Phe Gln Asn Phe Val Ala Arg Leu Lys Glu Arg Lys Asp Ile
465                 470                 475                 480
Asn Asp Leu Tyr Lys Thr Trp Ala Thr Asn Ala Gln Glu Gly Leu Thr
                485                 490                 495
Val Asp Glu Phe Leu Ala Phe Leu Arg Asp Ala Gln Gln Glu Asp Val
            500                 505                 510
Asp Thr Asp Arg Ala Tyr Trp Val Ser Val Phe Glu Lys Tyr Val Arg
        515                 520                 525
Lys Cys Lys Pro Arg Ala Pro Ser Leu Thr Asp Gly Val Glu Arg Gln
    530                 535                 540
Ala Phe Arg Met Ser Leu Glu Ala Phe Ser Ala Phe Leu Ser Ser Asn
545                 550                 555                 560
```

```
Trp Asn Gly Ile Tyr Ala Ser Arg Pro Pro Gln Ser Arg Phe Asp Arg
                565                 570                 575
Pro Leu Asn Glu Tyr Phe Ile Ser Ser Ser His Asn Thr Tyr Leu Leu
            580                 585                 590
Gly Arg Gln Val Ala Gly Ala Ser Ser Thr Glu Ala Tyr Ile Ser Ala
        595                 600                 605
Leu Ser Gln Gly Cys Arg Cys Val Glu Ile Asp Cys Trp Asp Gly Ala
    610                 615                 620
Asp Gly Arg Pro Ile Val Ser His Gly Arg Thr Met Thr Thr Ser Val
625                 630                 635                 640
Leu Phe Ala Asp Cys Ile Thr Val Ile Asn Arg Tyr Ala Phe Ile Thr
                645                 650                 655
Cys Asp Phe Pro Leu Ile Leu Ser Leu Glu Val His Cys Asn Pro Glu
            660                 665                 670
Gln Gln Leu Ala Met Val Arg Ile Met Lys Asp Thr Phe Lys Glu Arg
        675                 680                 685
Leu Val Leu Glu Pro Leu Leu Thr Asn Ser Phe Val Leu Pro Ser Pro
    690                 695                 700
Glu Glu Leu Lys Gly Arg Ile Leu Val Lys Val Lys Thr Cys Asp Glu
705                 710                 715                 720
Thr Leu Asp Gly Val Arg Gln Asp Thr Ser Thr Ser Phe Ala Ser Ala
                725                 730                 735
Gly Arg Lys Arg Ser Ser Ser Ser Pro Trp Met Arg Pro Ser Val Pro
            740                 745                 750
Glu Asn Pro Phe Val His Glu Pro Phe Pro Phe Ser Pro Val Leu
        755                 760                 765

<210> 39309
<211> 474
<212> PRT
<213> A.fumigatus

<400> 39309
Arg Ala Gly Phe Ser Ser Lys Ser Lys His Val Thr Arg Pro Ser Met
1                   5                  10                  15
Glu Cys Asp Lys Ile Pro Arg Pro Leu Ser Arg Ala Leu Val Gly Ser
            20                  25                  30
Ala Ala Gln Ala Pro His Gly Cys Val Leu Ala Ser Leu Arg Ile Leu
        35                  40                  45
Leu Cys Thr Asn Leu Ser Pro Ser Leu Gln Ser Tyr Asp Pro Trp Ala
    50                  55                  60
Gln Glu Ser Val Gly Pro Phe Val Ser Gln Asp Arg Arg Ser Phe Thr
65                  70                  75                  80
Thr Thr Ser Met Ser Ser Ala Thr Glu Asp Ser Asp Gly Ala Leu Val
                85                  90                  95
Ser Val Lys Arg Glu Arg Arg Arg Arg Gln Lys Ser Lys Ile Thr Lys
            100                 105                 110
Pro Leu Ser Asp Leu Gly Val Tyr Thr Arg Gly Tyr Lys Trp His Ser
        115                 120                 125
Phe Ser Ser Pro Glu Ser Gln Arg Phe Asn His Val Tyr Ser Phe Ala
    130                 135                 140
Glu Arg Ala Phe Glu Ser Ile Cys Arg Asp Ala Glu Asn Lys Ala Leu
145                 150                 155                 160
Leu Glu Arg His Asn Gln Lys Tyr Leu Thr Arg Val Tyr Pro Ser Gly
                165                 170                 175
Phe Arg Leu Arg Ser Ser Asn Phe Asp Pro Leu Lys Phe Trp Arg Arg
```

```
            180                 185                 190
Gly Val Gln Met Ala Ala Leu Asn Trp Gln Thr Tyr Asp Ile Gly Met
        195                 200                 205
Gln Leu Asn Gln Ala Met Phe Ala Ala Gly Thr Asp Arg Thr Gly Tyr
    210                 215                 220
Val Leu Lys Pro Glu Ser Leu Arg Leu Pro Pro Tyr Glu Gln Ala Ser
225                 230                 235                 240
Lys Thr Ser Thr Glu Arg Lys Leu Val Arg Phe Ser Val Glu Val Ile
                245                 250                 255
Ser Ala Gln Gln Leu Pro Arg Pro Arg Thr Met Gly Pro Asp Asp Asn
            260                 265                 270
Ile Asn Pro Tyr Val Glu Ile Glu Met Phe Ser Ala Asp Asp Arg Gly
        275                 280                 285
Gln Ser Phe Val Val Gly Glu Gly Gly Met Asn Ala Ser Ala Arg Asn
    290                 295                 300
Gly Val Ser Gly Ile Gly Tyr Pro His Arg Arg Arg Thr Lys Ile Glu
305                 310                 315                 320
Gln Ser Asn Gly Tyr Ser Pro Thr Phe Asn Asp Arg Phe Lys Leu Ser
                325                 330                 335
Leu Glu Thr Lys Tyr Pro Asp Leu Val Phe Val Arg Trp Thr Val Trp
            340                 345                 350
Ser Ser Leu Asp Gly Arg Ser Ala Gly Asn Asn Asn Ser Val Gln Leu
        355                 360                 365
Ala Thr Phe Thr Ala Lys Leu Ser Ser Leu Ser Gln Gly Tyr Arg Tyr
    370                 375                 380
Leu Pro Leu Tyr Asp Leu Gly Gly Asp Gln Tyr Leu Phe Ser Thr Leu
385                 390                 395                 400
Phe Cys Arg Ile Thr Lys Glu Glu Pro Val Pro Val Gln Arg Leu Gly
                405                 410                 415
Ala Glu Glu Leu Arg Ala Glu Arg Leu Gly Ile Leu Arg Gln Ile Gly
            420                 425                 430
Gln Thr Val Phe Lys Arg Gly Ser Ser Thr Glu Arg Ser Asp Lys Gly
        435                 440                 445
Ser Glu Thr Pro Ala Ser Gln Asp Asp Lys Asp Thr Ser Pro Val Leu
    450                 455                 460
Thr Pro Thr Val Ser Thr Thr Ser Thr Ser
465                 470
```

<210> 39310
<211> 263
<212> PRT
<213> A.fumigatus

<400> 39310

```
Tyr Pro His Trp Thr Gly Arg Arg Asp Lys Gln Gly Ser Pro Ile Val
1               5                   10                  15
Met Leu Glu Thr Val His Leu Asp Gln Lys Ala Ile Thr His Trp His
            20                  25                  30
Gln Thr Arg Gln Leu Ser Gly Gln Ser Ser Ser Pro Asp Met Glu Gln
        35                  40                  45
Arg Ala Leu Ala Tyr Phe Asp Tyr Leu Thr Arg Phe Val Phe Pro Leu
    50                  55                  60
Cys Ser Ala Leu Gln Asp Arg Pro Leu Pro Ser Glu Pro Val Thr Lys
65                  70                  75                  80
Ala Ile Tyr Leu Ile Asp Gly Ser Ser Ile Cys Leu Arg Gln Ala Trp
                85                  90                  95
```

```
Asn Leu Arg Asp Phe Ser Gln Asp Val Ser Trp Ile Leu Ala Thr Cys
            100                 105                 110
Tyr Pro Glu Thr Ile Asp Arg Ile Phe Val Ser Glu Arg Val Ile Gly
        115                 120                 125
Pro Cys Ala Phe Gly Leu Thr Cys Val Gln Leu Cys Asn Pro Pro Ser
    130                 135                 140
Tyr Phe Pro Lys Met Trp Ser Met Leu Lys Lys Phe Ile Asp Pro Val
145                 150                 155                 160
Thr Ala Glu Lys Ile Val Met Leu Asp Pro Ala Asp Val Tyr Gly Thr
                165                 170                 175
Leu Asn Lys Tyr Ile His His Asp Asn Ile Pro Val Gln Phe Gly Gly
            180                 185                 190
Ala Phe Glu Phe Thr His Gly Met Leu Pro Asp Leu Cys Pro Val Thr
        195                 200                 205
Arg Gln Thr Leu Arg Trp Ser Pro Pro Phe Asn Gly Thr Phe Pro Pro
    210                 215                 220
Gly Pro Ile Lys Trp Thr Glu His Ala Arg Gly Gln Ile Lys Ala Val
225                 230                 235                 240
Ala Ile Gly Thr Val Asp Gly Val Glu Arg Gly Phe Asp Val Ala Thr
                245                 250                 255
Leu Asp Ile Glu Glu Glu Lys
            260
```

<210> 39311
<211> 66
<212> PRT
<213> A.fumigatus

<400> 39311

```
His Ile Arg Arg His Gly Pro Tyr Met Thr Leu Asp Thr Ala Arg Ser
1               5                   10                  15
Ser Ser Leu Ala Ala Ile His Gln Ala Val Gln Ala Leu Trp Ala Gly
            20                  25                  30
Thr Ser Arg Met Ala Val Ala Ala Gly Thr Tyr Met Trp Thr His Gly
        35                  40                  45
Ala Ala Met Val Arg Arg Tyr Cys Thr Cys Leu Pro Glu Arg Leu Ser
    50                  55                  60
Ile Ser
65
```

<210> 39312
<211> 128
<212> PRT
<213> A.fumigatus

<400> 39312

```
Arg Gly Asn Thr Gly Val Met Arg Leu Pro Ser Ser Ala Leu Ser Phe
1               5                   10                  15
Leu Ala Ser Gln Gly Pro Gly Ser Gly Met Val Ile His Arg Gly Glu
            20                  25                  30
Gly Lys Phe Phe Leu Ile Gly Trp Gly Phe Gln Val Arg Ala Thr Ser
        35                  40                  45
Leu Ser Leu Thr Ala Ala Tyr Thr Gly Ile Phe Arg Phe Glu Glu Lys
    50                  55                  60
Val Val Val Asn Lys Gly Thr Gly Glu Leu Arg Thr Arg Arg Val Leu
65                  70                  75                  80
```

```
Asn Gly Asp Glu Thr Arg Ser Gly Gln Phe Ala Ile Met Pro Asn Glu
                  85                  90                  95
Asp Pro Asp Tyr Gly Gly Phe Pro Ile Ala Ile Thr Ile Pro Ala Lys
             100                 105                 110
Thr Met Ile Ala Glu Leu Glu Val Tyr Ala Leu Asp Glu Ser Asp Val
         115                 120                 125
```

<210> 39313
<211> 319
<212> PRT
<213> A.fumigatus

<400> 39313

```
Pro Ser Thr Thr Ile Gln Tyr Pro Phe Leu Met Pro Cys Arg Ser Met
1                   5                  10                  15
Asn Arg Leu Ile Ile Ala Ser Gly Met Ser Thr Tyr Ala Pro Ala Trp
            20                  25                  30
Val Lys Met Asn Pro Lys Arg Phe Pro Arg Met Lys Leu Arg Lys Ala
        35                  40                  45
Gly Gly Val Leu Gln Thr Thr Glu Ile Leu Ser Ile Phe His Glu Glu
    50                  55                  60
Ala Gln Lys Cys Asp Ala Arg Ala Phe Lys Gln Leu Met Arg His Leu
65                  70                  75                  80
Lys Asp Phe Asp Gln Asn His Ser Thr Val Ile Met Val Gln Val Glu
                85                  90                  95
Asn Glu Thr Gly Leu Leu Gly Asp Ser Arg Asp Gly Ser Ala Ala Ala
            100                 105                 110
Glu Glu Arg Phe Ser Lys Pro Val Pro Tyr Asp Leu Leu Asp Phe Leu
        115                 120                 125
Ala Asn Asp Trp Asp Ser Leu His Arg Asp Leu Lys Arg Asn Leu Val
    130                 135                 140
Arg Phe Lys Ala Gln Thr Asn Arg Gln Gly Ser Trp Ala Glu Val Phe
145                 150                 155                 160
Gly Lys Gly Pro His Thr Asp Glu Leu Phe Met Ala Tyr His Tyr Ala
                165                 170                 175
Leu Tyr Val Asn Gln Val Ala Ala Ala Gly Arg Glu Glu Tyr Pro Leu
            180                 185                 190
Pro Leu Tyr Thr Asn Ala Trp Gln Asn Tyr Ala Gly Glu Asp Ile Asp
        195                 200                 205
Asn Asn Leu Leu Gly Ile Val Gly Gly Gly Gly Met Pro Gly Asp Tyr
    210                 215                 220
Pro Ser Gly Gly Cys Thr Thr Asn Val Leu Asp Ile Trp Gln Arg Phe
225                 230                 235                 240
Ala Pro Ser Leu Asp Phe Phe Thr Pro Asp Ile Tyr Leu Asn Asp Tyr
                245                 250                 255
Glu Ser Cys Cys Ala Lys Tyr Cys His Arg Gly Gln Pro Leu Phe Ile
            260                 265                 270
Pro Glu Gln Arg Arg Asp Glu Tyr Gly Ala Arg Arg Ser Trp Ala Ala
        275                 280                 285
Ile Gly Ser Tyr Arg Gly Pro Trp Cys Leu Ser Asp Cys Pro Arg Tyr
    290                 295                 300
Pro Gly Thr Pro Asn Lys Ile His Thr Ser Ser Ile Met Pro Tyr
305                 310                 315
```

<210> 39314
<211> 167

<212> PRT
<213> A.fumigatus

<400> 39314
Ala Ser Leu Leu Ser Gln Ile Phe Phe Ser Asp Leu Thr Ser Ser Pro
1 5 10 15
Ala Asp Pro Val Ser Asn Gly Ile Arg Cys Ser Val Ser Asp Leu Ser
20 25 30
Ser Pro Thr Ala Arg Ile Leu Pro Thr Val Tyr Met Arg Arg Val Asn
35 40 45
Ile Ser Val Tyr Asp Ala Gln Phe Asp Asp Asp Ser Gly Cys Gln Ile
50 55 60
Pro Ile Pro Lys His Val Ile Lys Ser Val Val Gly Ala Ile Val Arg
65 70 75 80
Phe Gln Ile Thr Cys Ala Gln Ile Gly Val Pro Pro Glu Asn Ile Arg
85 90 95
Ile Ile Ala Thr Glu Ala Thr Arg Thr Ala Leu Asn Ala Asn Glu Phe
100 105 110
Val Asp Ala Ile Arg Arg Ala Thr Asn Val Ser Val Glu Thr Leu Pro
115 120 125
Lys Glu Val Glu Gly Ile Ile Gly Ala Trp Gly Ile Ala Ser Ser Phe
130 135 140
Ser Asp Ile Glu Gly Leu Ala Ile Asp Leu Gly Gly Gly Ser Met Gln
145 150 155 160
Met Thr Trp Ile Val Ser His
165

<210> 39315
<211> 70
<212> PRT
<213> A.fumigatus

<400> 39315
Ala Arg Ser Thr Ile Ser Leu Leu Asp Phe Tyr Arg Ser Leu Lys Thr
1 5 10 15
Thr Thr Ser Asn Thr Leu Leu Ile Ser Pro Leu Leu Leu Arg Pro Ile
20 25 30
Leu Leu Leu Leu Asn Leu Pro Tyr Ile Pro Ser Tyr Pro Lys Ala Leu
35 40 45
Ala Leu Leu Leu Leu Ser Leu Leu Ser Asn Pro Ser Ala Leu Leu Phe
50 55 60
Lys Gly Ile Ser Ile Cys
65 70

<210> 39316
<211> 679
<212> PRT
<213> A.fumigatus

<400> 39316
Ser Gly Arg Tyr Ala Asn Cys Cys Phe Leu Cys Pro His Gln His Phe
1 5 10 15
Pro Gln Val Asp Ser His Thr Trp Arg Ser Leu Leu Gln Met Arg Ala
20 25 30
Leu Gly Thr Val Ala Ser Ser Ala Asp Met Glu Lys Leu Ser Pro Thr
35 40 45

```
Met Ala Gln Ser Ile Val Glu Leu Thr Asp Lys Leu Glu His Glu Leu
    50                  55                  60
Ala Leu Arg Leu Val Asn Arg Leu Val Arg Ala Leu Thr Ala Arg Leu
65                  70                  75                  80
Ala Phe Tyr Glu Ile Ser Lys Ala Arg His Pro Cys Leu Gln Asp Phe
                85                  90                  95
Ser Lys Lys Arg Gln Asp Ser Ala Leu Asp Leu Leu Met Asn Asn Leu
            100                 105                 110
Gly Asp His Tyr Ser Leu Val Arg Ala Ala Thr Asp Glu Ser Asp Gly
        115                 120                 125
Ala Glu Pro Pro Pro Ser Ala Ala Val Ile Ile Ala Glu Trp Leu Arg
    130                 135                 140
Thr Leu Phe Leu Lys Glu Trp Asp Gly Asn Pro Glu Ile Ser Arg Ser
145                 150                 155                 160
Ser Ser Ala Gly Gly Val Val Glu Ile Leu Ser Arg Met Tyr Lys Gln
                165                 170                 175
Arg Asn Arg Leu Gly Leu Val Pro Glu Asp Phe His Thr Pro Phe Leu
            180                 185                 190
Cys Glu Arg Leu Glu Pro Leu Asp Met Pro Val Glu Trp Ile Gly Arg
        195                 200                 205
Leu Thr Asn Asn Lys Thr Leu His Leu Leu Ser Tyr Ser Phe Leu Phe
    210                 215                 220
Pro Pro Ser Ala Leu Val Ile Tyr Phe Arg Ala Leu Asn Tyr Ala Ala
225                 230                 235                 240
Met Ser Lys Tyr Tyr Glu Ala Ala Met Thr Thr Ser Arg His Val Asn
                245                 250                 255
Gln Thr Ala Phe Gly Pro Ile Pro Ile Gln Asp Asp Val Met Leu Leu
            260                 265                 270
Ser Gln Met Lys Thr Ser Met Ser Thr Tyr Leu Val Leu Met Val Arg
        275                 280                 285
Arg Asp Asn Val Leu Thr Asp Ala Leu Asn Gln Leu Trp Arg Arg Glu
    290                 295                 300
Arg Arg Glu Leu Met Arg Pro Leu Lys Val Gln Met Gly Met Asp Glu
305                 310                 315                 320
Gly Glu Glu Gly Leu Asp His Gly Gly Val Gln Gln Glu Phe Phe Arg
                325                 330                 335
Val Leu Met Ala Glu Ala Leu Asn Pro Ser Tyr Gly Met Phe Thr Met
            340                 345                 350
Asp Ala Arg Thr Arg Ile Ser Trp Phe Gln Pro Cys Ser Leu Glu Pro
        355                 360                 365
Leu Tyr Lys Phe Glu Leu Leu Gly Leu Leu Met Ser Leu Ala Ile Tyr
    370                 375                 380
Asn Gly Leu Thr Leu Pro Val Asn Phe Pro Val Ala Phe Tyr Arg Lys
385                 390                 395                 400
Leu Leu Gly Leu Lys Val Lys His Leu Glu His Ile Arg Asp Gly Trp
                405                 410                 415
Pro Glu Leu Thr Lys Gly Leu Glu Leu Leu Leu Ser Trp Gln Asp Gly
            420                 425                 430
Asp Val Gly Asp Val Phe Met Arg Thr Tyr Glu Phe Thr Phe Glu Val
        435                 440                 445
Phe Gly Ala Val Glu Thr Val Asp Met Glu Lys Val Gly Arg Asp Ala
    450                 455                 460
Val Trp Pro Leu Arg Ala Arg Asp Arg Ser Lys Ser Ser Glu Leu Ala
465                 470                 475                 480
Thr Asn Trp Ser Glu Leu Ser Gln His Ala Asp Pro Ala Asp Leu Ser
                485                 490                 495
```

```
Pro Pro Cys Ser Met Ser Ala Asp His Val Asp Phe Leu Glu Cys Gly
            500                 505                 510
Ser Ser His Arg Ser Lys Ser Glu Arg Leu Asp Tyr Cys Val Pro Thr
        515                 520                 525
Pro Pro Val Glu Glu Ala Ser Leu Val Thr Asn Asp Asn Arg Ala Gln
    530                 535                 540
Phe Val Lys Asp Tyr Ile Phe Trp Leu Thr Asp Lys Ser Ile Arg Pro
545                 550                 555                 560
Gln Phe Glu Ala Phe Ala Arg Gly Phe Tyr Thr Cys Leu Asp Arg Ala
                565                 570                 575
Ala Leu Ser Ile Phe Thr Pro Glu Ala Phe Lys Thr Val Val Glu Gly
            580                 585                 590
Ile Gln Glu Ile Asp Leu Gly Glu Leu Glu Arg His Ala Arg Tyr Glu
        595                 600                 605
Gly Gly Phe Gly Pro His His Arg Val Ile Gln Asp Phe Trp Ser Ile
    610                 615                 620
Val Lys Ser Phe Ser Gln Glu Lys Lys Ala Gln Leu Leu Glu Phe Val
625                 630                 635                 640
Thr Ala Ser Asp Arg Val Pro Val Asn Gly Ile Ala Ser Ile Met Phe
                645                 650                 655
Val Ile Gln Arg Asn Gly Val Gly Asp Ala Val Gly Val Leu Ala Arg
            660                 665                 670
Phe Ser Ala Ala Leu Ser Asp
        675
```

<210> 39317
<211> 131
<212> PRT
<213> A.fumigatus

<400> 39317

```
Gln His His Gln Gly Val His Asn Leu Ser Thr Ala Asn His Val Ile
1               5                   10                  15
His Asp Pro Ser Leu Thr Asp Leu Gly Asn Glu Gln Cys Arg Ile Leu
            20                  25                  30
Arg Asp Asn Phe Pro Phe His Asp Arg Ile Glu Leu Ile Thr Ala Ser
        35                  40                  45
Pro Leu Arg Arg Thr Ile Tyr Thr Ala Tyr Gln Ser Phe Gln Pro Val
    50                  55                  60
Leu Glu Lys His Lys Asp Met Lys Ile Val Leu Leu Pro Asp Val Gln
65                  70                  75                  80
Glu Thr Ser Asp Val Pro Cys Asp Thr Gly Ser Asp Pro Glu Val Leu
                85                  90                  95
Arg Lys Glu Met Glu Glu Gln Gly Ile Pro Val Asp Met Ser Leu Val
            100                 105                 110
Gln Glu Gly Trp Asn Ser Lys Val Cys Phe Leu Arg Phe Gly Arg Glu
        115                 120                 125
Arg Gly Gly
    130
```

<210> 39318
<211> 147
<212> PRT
<213> A.fumigatus

<400> 39318

```
Arg Thr Gln Gln Arg Gln Val Ser His Pro Ile Pro Arg Gln Gly Thr
1               5                  10                  15
Arg Phe Glu Ile Ala Ser Met Ile Gly Leu Asp Ala Leu Leu Gln Gly
            20                  25                  30
Arg Phe Pro Trp Ile Gly Asp Ile Leu Ala Thr Leu Glu Gln Tyr Pro
        35                  40                  45
Leu Cys Ala Gln Arg Gln Lys Tyr Lys Ala Arg Arg Val Asp Gln Asn
    50                  55                  60
Arg Thr Thr Glu Thr Gln Gln Gln Asp Ser Asp Lys Asp Gly Val Lys
65                  70                  75                  80
Ser Ser Thr Ser Leu Cys Ala Val Val Tyr Lys Ser Ile Asp Cys Cys
                85                  90                  95
Met Ser Phe Ala Ile Ser Gln Trp Pro Ser Arg Ile Ile Ser Glu Thr
            100                 105                 110
Asp Leu Val Ser Phe Thr Leu Leu Glu Gln Tyr Arg Thr Gly Glu Ser
        115                 120                 125
Ala Leu Lys Gly Lys Gln Ile Leu Met Pro Gly Ser Gln Asp Pro His
    130                 135                 140
Thr Tyr Asp
145
```

<210> 39319
<211> 89
<212> PRT
<213> A.fumigatus

<400> 39319

```
Cys Arg Lys Asp Gly Thr Ala Arg Phe Val Ser Phe Val Ser Gly Gly
1               5                  10                  15
Arg Gly Glu Ala Asp Gly Ile Gln Thr Gly Arg Tyr Ala Pro Thr Asn
            20                  25                  30
Glu Ala Ile Lys Asn Arg Ala Arg Ala Ala Arg Arg Trp Leu Lys Glu
        35                  40                  45
Arg Pro Glu Lys Glu Ile Val Val Val Thr His Gly Gly Phe Leu His
    50                  55                  60
Tyr Phe Thr Glu Asp Trp Glu Asp Ser Ser Leu Tyr Gln Gly Met Ser
65                  70                  75                  80
Arg Phe Val Ile Phe Leu Gln Ser Met
                85
```

<210> 39320
<211> 64
<212> PRT
<213> A.fumigatus

<400> 39320

```
Ile Ser Ala Arg Val Asp Phe Phe Trp Val Tyr Pro Ser Phe Ala Arg
1               5                  10                  15
Val Lys Ser Leu Ile Ala Leu Ser Leu Ala Leu Leu Phe Trp Lys Val
            20                  25                  30
Cys Ala Pro Glu Phe Ile His Pro Val Tyr Asn Lys Arg Arg Cys Ala
        35                  40                  45
Phe Ser Phe Tyr Ile Leu Ser Gly Cys Leu Phe Gln Thr His Thr Leu
    50                  55                  60
```

<210> 39321

<211> 857
<212> PRT
<213> A.fumigatus

<400> 39321
Leu Phe Val Phe Asn Pro Ala Trp Ser Cys Gly Val Gly Phe Ser Met
1 5 10 15
Tyr Ala Leu Val Asp Pro Ile Cys Gln Val Lys Glu Ser Arg Ser Leu
20 25 30
Ile Thr Asp Ile Leu Lys Gln Lys Gln Arg Glu Ser Trp His Val Pro
35 40 45
Ser Asn Ala Ser Ala Arg Ile Ala Pro Asp Gln His Arg Gln Tyr Arg
50 55 60
Ile Glu Gly Thr Asp Ser Glu Pro Tyr His Asn Gly Gln Tyr Asn Ser
65 70 75 80
Gln Ser Ser His His His Thr Arg Gly Ser Pro Asp Leu Gly Asp Leu
85 90 95
Asp Ile Ala Lys Ala Cys Gly Glu Val Ser Gly Asp His Gln Leu Arg
100 105 110
Phe Ser Arg Gln Lys Ser Ser Thr Gly Val Glu His Ala Val Lys Asn
115 120 125
Ala Gln Gly Leu Ser Gly Arg Pro Glu Asn Ala Val Arg Ser Thr Glu
130 135 140
Lys Ser Thr Ser Gln Asn Glu Thr Asn Thr Phe Ser His Lys Lys Asp
145 150 155 160
Lys Arg Val Thr Arg Arg Leu Glu Ala Glu Arg Ile Glu Leu Glu Lys
165 170 175
Arg Leu Leu Lys Leu Glu Gln Thr Gln Leu Ala Gly Asn His Asn Ser
180 185 190
Pro Lys Arg Glu Ser Arg Arg Leu Thr Lys Lys Gln Pro Leu Gly Ser
195 200 205
Ser Ser Arg Gly Ser Ser Val Ser Ala Asp Glu Ser Arg Pro Ser Ser
210 215 220
Arg Arg Leu Ser Gly Leu Phe Ser Ile Pro Arg Arg Ala Ser Thr Ser
225 230 235 240
Arg Ser Ser Ser Val Asn Gly Arg Asn Gly Glu Glu Ser Thr Asp Ser
245 250 255
Ala Pro Val Pro Ala Lys Thr Leu Pro Asp Asp Val Ser Thr Ser Arg
260 265 270
Val Ala Lys Pro Ser Leu Ser Thr Ser Leu Pro Glu Arg Phe Ser Ala
275 280 285
Val Ile Ser Lys Glu Leu Ile Val Arg Ser Asn Ala Leu Leu Gln Asp
290 295 300
Gln Thr Ser Pro Ala Gln Ser Pro Ser Ser Pro Ala Thr Thr Ala Ala
305 310 315 320
Met Asn Gln Ser Glu Thr Leu Glu Ser Asn Glu Glu Arg Pro Leu Gln
325 330 335
Lys Pro Glu Pro Thr Leu Asp Tyr Ala Lys Gln Gln Ile Asp Asp His
340 345 350
Gly Glu Ser Pro Lys Ser Arg Ser Leu Gln Thr Ser Pro Asp Leu Asp
355 360 365
Pro Leu Ser Phe Ala Ala Thr Leu His Leu Ala Lys Arg Ala Arg Gly
370 375 380
Asn Asn His Phe Lys Asp Gln Ser Pro Asp Lys Val Gln His Pro Ser
385 390 395 400
Phe Val Gln Arg Asp Val Thr Gln Asn Gly Lys Leu Tyr Asp Pro Gln

```
                405                 410                 415
Pro Leu Gly Ser Ser Lys Met Gly Ala Val Ser Gln Pro Asn Pro Lys
            420                 425                 430
Thr Ile Asp Asn Ser Ser Ser Leu Pro Thr Lys Val Ser Val Lys Ser
        435                 440                 445
Val Pro Arg Arg Thr Phe Lys Pro Ser Pro Leu Ala Gly Asp Ser Thr
    450                 455                 460
Ser Gly Gly Ser Ser Arg Ser Leu Ala Gly Asn Ala Ser Val Trp Arg
465                 470                 475                 480
Ser Arg Asn Ser Gly Gly Ser Ser Gly Ala Arg Arg Thr Pro Ser Ser
                485                 490                 495
Ser Met Val Thr Val Ala Thr Arg Ile Ser Ser Ala Val Glu Ser Leu
            500                 505                 510
Gln Val Ser Gln Pro Ser Thr Asn Ser Gln Ser Glu Thr Glu Arg Glu
        515                 520                 525
Gly Arg Ala Gln Asp Ser Ala Ser Glu Arg Thr Pro Lys Ser Asn Asn
    530                 535                 540
Leu Ala Asn Thr Arg Val Ser Lys Glu Gln Glu Ala Leu Asp Tyr Ala
545                 550                 555                 560
Ser Ser Gln His Pro Arg Ile Arg His Leu Thr Arg Thr Ser Ala Pro
                565                 570                 575
Val Ser Asn Pro Pro Gln Leu Ser Val Lys Ser Arg Ile Gln Thr Ser
            580                 585                 590
Glu Asn Asp Lys Asn Ile Asn His Leu Ser Val Lys His Asn Arg Gln
        595                 600                 605
Glu Ala Gln Ala Ile His Gly Ala Gln Thr Ala Arg Val Asn Gln Asp
    610                 615                 620
Val Pro Pro Met Thr Glu His Lys Ser Gly Arg Arg Leu Asp Ala Arg
625                 630                 635                 640
Gly Phe Ala Thr Pro Gly Ser Ala Ser Ser Arg Ser Ser Ser Pro Glu
                645                 650                 655
Pro Cys Ser Glu Asp Tyr Asn Thr Ala Asp Glu Ala Gly Ser Ile Gly
            660                 665                 670
Ser Val Pro Arg Ala Asn Asn Asp Cys Leu Asp Gly Lys Ser Ala Ala
        675                 680                 685
Ala Ser Gly Pro Cys Phe Val Gln Asn Thr Ile Glu Ser Asn Asp Ser
    690                 695                 700
Thr Cys Val Gly Lys Phe Thr Asp Val Ala Val Ser Lys Ala Gly Asp
705                 710                 715                 720
Pro Gln Gly Asp Arg Pro Ala Thr Glu Thr Gly Val Cys Gln Arg Lys
                725                 730                 735
Gln Ser Thr Thr Lys Thr Phe Val Ile Cys Cys Ser Cys Lys Tyr Trp
            740                 745                 750
His Asp Met Pro Pro Glu Ser Tyr Ser Lys Val Ala Ser Pro Asp Thr
        755                 760                 765
Cys Ser Val Pro Thr Arg Lys Gly Pro Thr Leu Leu Gly Arg Ser Ser
    770                 775                 780
Ser Phe Ala Gln Lys Ser Ser Arg Lys Leu Thr Arg Ser Thr Gln Ile
785                 790                 795                 800
Lys Ser Ala Leu Leu Asn Glu Arg Ser Val Ser Glu Arg Ala Thr Ile
                805                 810                 815
Gly Ser Ala Thr Arg Ser Arg Phe Ala Asp Ala Pro Leu Arg Cys Cys
            820                 825                 830
Trp Cys Asp His Pro Met Asn Arg His Cys Cys Glu Gly Trp Thr Thr
        835                 840                 845
Thr Val Tyr Lys His Glu Arg Gln Phe
```

850 855

<210> 39322
<211> 310
<212> PRT
<213> A.fumigatus

<400> 39322
Ser Tyr Pro Leu Leu Pro Leu Ser Trp Ile Ala Gly Ser Leu Ile His
1 5 10 15
His Ser Thr Val Gly Arg Val Leu Ser Ser Gln Thr Ile Gly Val Glu
20 25 30
Phe Ser Ser Lys Ile Ile Arg Leu Gly Ser Gly Pro Arg Lys Thr Arg
35 40 45
Ile Lys Leu Gln Leu Trp Asp Thr Ala Gly Thr Glu Arg Phe Arg Ser
50 55 60
Val Ser Arg Ser Tyr Tyr Arg Gly Ala Ala Gly Ala Ile Leu Ile Tyr
65 70 75 80
Asp Ile Ser Ser Gln Ala Ser Phe Ala Ala Leu Pro Thr Phe Leu Met
85 90 95
Asp Ala Arg Ala Leu Ala Ser Pro Asn Leu Thr Val Phe Leu Ala Gly
100 105 110
Asn Lys Ala Asp Leu Ala Ser Asp Ser Val Thr His Gly Asp Leu Ala
115 120 125
Asp Asp Ser Met Arg Ala Pro Pro Thr Pro Ser Ser Thr Ser Ser Lys
130 135 140
Gln Ser Ser Phe Pro Ile Asp Ser Val Pro Gly Ser Val Arg Ser Thr
145 150 155 160
Ser Ile Leu Gly Thr Gly Thr Arg Leu Thr Ala Thr Tyr Ala Phe Glu
165 170 175
Gly Arg Gln Val Ser Ala Glu Glu Ser Ala His Trp Ala Ala Lys Ala
180 185 190
Asn Ile Pro Val Ala Val Glu Val Ser Ala Leu Thr Gly Glu Gly Val
195 200 205
Glu Glu Leu Phe Asn Arg Leu Ala Arg Ile Ile Leu Thr Lys Ile Glu
210 215 220
Leu Gly Glu Ile Asp Pro Asp Asp Pro Gln Ser Gly Ile Gln Tyr Gly
225 230 235 240
Asp Gly Gly Leu Tyr Gly Gln Gly Thr Ser Asp Gly Ser Ser Ile Arg
245 250 255
Ser Arg Met Thr Val Asp Asp Asn Ser Val Gln Leu His Arg Arg Asn
260 265 270
Pro Lys Arg Arg Gly Gly Thr Arg Gly Val Asn Asn Trp Arg Ser Asn
275 280 285
Met Gly Glu Trp Glu Glu Val Phe Gln Leu Ser Gly Ser His Gln Lys
290 295 300
Lys Gly Thr Gly Cys Cys
305 310

<210> 39323
<211> 145
<212> PRT
<213> A.fumigatus

<400> 39323
Gln Asp Ala Glu Asn Gly Lys Gly Cys Glu Ser Pro Gln Ala Pro Asp

```
1               5                   10                  15
Lys Ala Val Leu Val Arg Asp Ser Phe Phe Cys Pro Pro Ala Asn Gln
            20                  25                  30
Asp Pro Asp Lys Ser Leu Leu Gly Ile Pro Ala Ile Lys Tyr Pro Glu
        35                  40                  45
Leu Leu His Gly Arg Leu Pro Ser Ile Lys Gln Tyr Ser Pro Met Gly
    50                  55                  60
Pro Lys Lys Lys Pro Asp Ala Arg Gly Val Pro Lys Pro Gly Thr Lys
65                  70                  75                  80
Gln Ala Lys Ala Ala Ala Glu Arg Leu Ala Glu Asn Ala Lys Lys Ala
                85                  90                  95
Gln Ala Ala Thr Glu Glu Pro Lys Lys Pro Ser Val Lys Glu Val Ile
            100                 105                 110
Gly Gly Ala Ser Trp Thr Gly Lys Leu Pro Val Asn Met Leu Ala Glu
        115                 120                 125
His Cys Gln Lys Gln Lys Trp Glu Lys Pro Glu Tyr Thr Met Val Ser
    130                 135                 140
Glu
145
```

<210> 39324
<211> 928
<212> PRT
<213> A.fumigatus

<400> 39324

```
Met Arg Thr Ser Asp Gly Tyr Ile Ser Ser Val Ile Leu Lys Arg Ile
1               5                   10                  15
Asp Pro Lys Thr Arg Glu Leu Thr Val Leu Pro Pro Met Lys Pro Pro
            20                  25                  30
Ser Ser His Lys His Leu Ala Ala Gln Pro Thr Ala Leu Glu Ala Arg
        35                  40                  45
His Phe Ala Ala Ala Tyr Ala Leu Phe Arg Val Cys Asn Met Arg Asn
    50                  55                  60
Leu His Met Met Leu Pro Pro Thr Tyr Lys Lys Leu Trp Lys Glu Asp
65                  70                  75                  80
Phe Thr Asp Leu Lys Asn Ala Asp Thr Lys Glu Gly Lys Gly Trp Met
                85                  90                  95
Tyr Glu Ala Asp Pro Phe Leu Ala Lys Gln Glu Arg Glu Thr Ala Ala
            100                 105                 110
Ala Glu Gln Glu Lys Lys Arg Lys Glu Arg Glu Lys Ala Gln Ala Lys
        115                 120                 125
Glu Lys Glu Thr Ala Val Asp Leu Gly Val Gly Ser Ser Gly Glu Asn
    130                 135                 140
Arg Gly Lys Arg Ile Trp Ser Gln Ala Pro Lys Val Asp Leu Gly Asn
145                 150                 155                 160
Arg Ile Arg Arg Glu Leu Glu Glu Leu Leu Arg Gln His Thr Ile Trp
                165                 170                 175
Asn Pro Tyr Asn Ile Gln Ile Ser Glu Ala Glu Arg Lys Ala Ile Val
            180                 185                 190
Glu Glu Phe Leu Gly Leu Gly Phe Arg Arg Ser His Val Glu Glu Ala
        195                 200                 205
Thr Ala Ala Cys Arg Asp Arg Glu Glu Val Leu Glu Trp Leu Leu Val
    210                 215                 220
Tyr Val Pro Glu Asp Asp Leu Pro Arg Trp Cys Leu Pro Glu Arg Tyr
225                 230                 235                 240
```

```
Thr Ala Gly Val Thr Leu Ala Ser Asp Asp Leu Gly Arg Glu Ala Lys
                245                 250                 255
Ile Lys Arg Leu Ala Ser Phe Gly Tyr Ser Ala Asp Leu Cys Ala Gln
            260                 265                 270
Thr Leu Asp Asn Lys Arg Gly Asp Glu Leu Ala Ala Ala Glu Phe Leu
        275                 280                 285
Gln Arg Thr Leu Val His Gly Glu Asn His Ser Leu Asp Ser Leu Ser
    290                 295                 300
Val Gly Asp Glu Asp Ser Trp Val Glu Glu Gln Asp Thr Leu Glu Ala
305                 310                 315                 320
Ile Phe Gly Glu Arg Tyr Lys Arg Leu Ser Ser Lys Val Cys Glu Ile
                325                 330                 335
Lys Ser Glu Ala Pro Asn Ile Pro Gly Ser Leu Ser Phe Arg Phe Gln
            340                 345                 350
Lys Pro Ser Ala Gly Tyr Pro Ser Ser Val Pro Val Ile Ala Ile Gln
        355                 360                 365
Gly Thr Gly Ile Pro Ala Tyr Ile Arg Leu Ser Ala Ile Arg Gln Ala
    370                 375                 380
Val Gln Phe Ala Glu Glu Asn Phe Leu Gly Glu Ser Met Ile Phe Asn
385                 390                 395                 400
Ile Met Asp Trp Leu Glu Thr His Leu Pro Gly Ile Ile Glu Asn Pro
                405                 410                 415
Gly Lys Leu Arg Asp Ile Ser Thr Val Thr Gly Ser Ser Ser Ser Ala
            420                 425                 430
Val Gly Ser Phe Pro Arg Leu Pro Val Arg Gln Ser Arg Lys Gln Ser
        435                 440                 445
Arg Lys Ile Asp Trp Asn Pro Gly Ser Pro Leu Gly Val Ser Ile Arg
    450                 455                 460
Glu Ala Trp Lys Ala Arg Gln Ser Thr Thr Ala Gln Gln Glu Met Thr
465                 470                 475                 480
Arg Lys Arg Glu Ser Leu Pro Ala Trp Lys Ile Gln Asp Ala Ile Ile
                485                 490                 495
Gln Ala Val Asn Thr His Gln Val Thr Ile Ile Ser Gly Glu Thr Gly
            500                 505                 510
Ser Gly Lys Ser Thr Gln Ser Val Gln Phe Ile Leu Asp Asp Met Ile
        515                 520                 525
Lys Arg Gly Leu Gly Gly Val Ala Asn Ile Ile Cys Thr Gln Pro Arg
    530                 535                 540
Arg Ile Ser Ala Leu Gly Leu Ala Asp Arg Val Ser Asp Glu Arg Cys
545                 550                 555                 560
Thr Ser Val Gly Lys Glu Val Gly Tyr Ile Ile Arg Gly Asp Ser Arg
                565                 570                 575
Met Arg Pro Gly Glu Thr Lys Ile Thr Phe Val Thr Thr Gly Val Leu
            580                 585                 590
Leu Arg Arg Leu Gln Ser Gly Ser Gly Pro Asp Gly Asn Val Ala Gly
        595                 600                 605
Ser Leu Ala Asp Val Thr His Val Val Val Asp Glu Val His Glu Arg
    610                 615                 620
Ser Leu Asp Thr Asp Phe Leu Leu Ala Leu Leu Arg Asp Val Leu Pro
625                 630                 635                 640
Tyr Arg Pro Asp Ile Lys Val Ile Leu Met Ser Ala Thr Leu Asp Ala
                645                 650                 655
Glu Ile Phe Met Asp Tyr Phe Gly Gly Arg Glu Lys Val Gly Leu Val
            660                 665                 670
Asn Ile Pro Gly Arg Thr Phe Pro Val Ser Asp Tyr Tyr Leu Asp Asp
        675                 680                 685
```

```
Ile Val Arg Tyr Thr Gly Phe Ala Pro Glu Leu Ala Glu Arg Gly Leu
    690                 695                 700
Asp Glu Asp Val Met Ser Pro Pro Gln Gly Asp Glu Ser Leu Gly Lys
705                 710                 715                 720
Leu Leu Arg Gly Leu Gly Met Gly Ile Asn Tyr Glu Leu Ile Ala Ser
                725                 730                 735
Thr Val Arg Tyr Ile Asp Ser Gln Leu Gly Asp Gln Pro Gly Gly Ile
            740                 745                 750
Leu Ile Phe Leu Pro Gly Thr Met Glu Ile Glu Arg Cys Leu Asn Ala
        755                 760                 765
Val Arg Lys Ile Pro Asn Val His Pro Leu Pro Leu His Ala Ser Leu
    770                 775                 780
Leu Pro Ala Glu Gln Lys Arg Val Phe Leu Ser Pro Pro Lys Gly Lys
785                 790                 795                 800
Arg Lys Val Ile Ala Ala Thr Asn Val Ala Glu Thr Ser Ile Thr Ile
                805                 810                 815
Glu Asp Val Val Ala Val Ile Asp Thr Gly Arg Val Lys Glu Thr Ser
            820                 825                 830
Tyr Asp Pro Lys Asp Asn Met Val Arg Leu Gln Glu Val Trp Ala Ser
        835                 840                 845
Gln Ala Ala Cys Lys Gln Arg Arg Gly Arg Ala Gly Arg Val Arg Ala
    850                 855                 860
Gly Ser Cys Tyr Lys Leu Tyr Thr Arg Lys Ala Glu Ser Ser Met Pro
865                 870                 875                 880
Gln Arg Pro Glu Pro Glu Ile Arg Arg Val Pro Leu Glu Gln Leu Cys
                885                 890                 895
Leu Ser Val Lys Ala Met Lys Arg Ile Gly Arg Cys Cys Tyr Leu Phe
            900                 905                 910
Trp Arg Ala Pro Ser Arg Arg Leu Lys Ala Ser Leu Ser Arg Val Pro
        915                 920                 925

<210> 39325
<211> 118
<212> PRT
<213> A.fumigatus

<400> 39325
Lys Ala His Ser Tyr His Pro Ala Thr Ser Ala Thr Lys Pro Thr Pro
1               5                   10                  15
Pro Lys Arg Pro Ser Pro Asn Ala Thr Gly Ile Ser Ser Pro Thr Ser
            20                  25                  30
Pro His Thr Ser Ser Gly Leu Ser Glu Pro Lys His Arg Ala Thr Gly
        35                  40                  45
Arg Pro Ser Pro Gly Ala Pro Pro Thr Ser Ser Arg Thr Arg Pro Ser
    50                  55                  60
Ala Thr Phe Arg Pro Thr Glu Pro Ser Ser Ser Val Leu Ser Arg Thr
65                  70                  75                  80
Pro Ala Ser Ser Gln Ser Thr Thr Gln Thr Pro Asn Pro Val Pro Pro
                85                  90                  95
Gly Thr Ala Thr Thr Gly Thr Glu Ala Ser Ser Ala Pro Ser Ser Gln
            100                 105                 110
Val Pro Ser Ser Arg Arg
        115

<210> 39326
<211> 163
```

<212> PRT
<213> A.fumigatus

<400> 39326
Ala Asn Gln Ser Thr Gly Leu Leu Ala Asp Pro Val Leu Val Leu Arg
1 5 10 15
Gln Leu Pro Leu Ala Pro Asp Pro Pro Arg His Phe Val Gln Pro Ser
20 25 30
Pro Val His Gln Phe Ser Gln Gly Arg Arg His Pro Pro Ser Arg Leu
35 40 45
Leu Arg Leu Arg Thr Gln Phe Arg Leu Glu Pro Gln Gln Arg Glu Gln
50 55 60
Lys Pro Pro Pro Arg His His Arg Arg Cys Leu Pro Ala Ala Gly Ser
65 70 75 80
Pro Asp Leu Leu Pro Gly Gln Glu Ile Arg Gln Leu Arg Asp Arg His
85 90 95
Arg Arg Asn Arg Pro Gly Arg Pro Asn Asn Gln Val Leu Gln Pro Gly
100 105 110
Lys Arg Pro Cys Leu His Pro Pro Lys Leu Pro Pro Leu Leu Arg Ala
115 120 125
Glu Leu Leu Arg Cys Arg Arg Val Pro Gln Leu Leu His Gln Asp Gly
130 135 140
Asp Lys Leu Ser Leu His Pro Gly Ser Asn Pro Tyr Ala Phe Pro Ser
145 150 155 160
Pro Ser Pro

<210> 39327
<211> 338
<212> PRT
<213> A.fumigatus

<400> 39327
Leu Arg Pro Glu Gly Gln His Gly Ala Pro Pro Gly Ser Leu Gly Phe
1 5 10 15
Pro Ser Ser Met Gln Ala Thr Thr Arg Pro Cys Arg Ser Cys Glu Gly
20 25 30
Trp Phe Leu Leu Gln Ala Val His Thr Gln Ser Arg Ile Glu Tyr Ala
35 40 45
Ala Ala Thr Arg Thr Arg Asn Pro Ala Ser Pro Ile Gly Ala Ala Val
50 55 60
Pro Val Ser Gln Ser His Glu Lys Asp Arg Thr Met Leu Leu Pro Phe
65 70 75 80
Leu Ala Ser Thr Ile Ser Pro Pro Glu Ser Val Ala Val Glu Gly Ala
85 90 95
Ile Asp Phe Leu His Arg Val Gly Ala Leu Asp Gln Asp Arg Leu Thr
100 105 110
Ala Leu Gly Arg Tyr Leu Ser Met Ile Pro Ala Asp Leu Arg Cys Ala
115 120 125
Lys Leu Met Val Tyr Gly Ser Ile Phe Gly Cys Ile Asp Ala Cys Val
130 135 140
Thr Ile Ser Ala Ile Leu Thr Val Lys Ser Pro Phe Ile Ser Pro Arg
145 150 155 160
Asp Lys Arg Asp Glu Ala Asp Ala Ala Lys Ala Ser Phe Ser Lys Cys
165 170 175
Asp Gly Asp Leu Leu Thr Asp Leu Ala Ala Tyr Gln Gln Trp Ser Glu

```
            180                 185                 190
Arg Thr Lys Ala Gln Gly Tyr Trp Gln Thr Gln Ser Trp Cys Ser Ala
        195                 200                 205
Asn Phe Leu Ser His Gln Thr Leu Arg Asp Ile Ser Ser Asn Arg Ala
    210                 215                 220
Gln Phe Ile Ser Ser Leu Lys Asp Ala Gly Ile Leu Pro Val Asp Tyr
225                 230                 235                 240
Ser Asp Ser Glu Pro Ser Ser Ala Trp Asn Arg Asn Asn Gly Asn Arg
                245                 250                 255
Ser Leu Leu Arg Ala Ile Ile Ala Gly Ala Phe Gln Pro Gln Val Ala
            260                 265                 270
Gln Ile Ser Phe Pro Asp Lys Lys Phe Ala Ser Ser Val Thr Gly Thr
        275                 280                 285
Val Glu Ile Asp Pro Asp Ala Arg Thr Ile Lys Tyr Phe Asn Gln Glu
    290                 295                 300
Asn Gly Arg Val Phe Ile His Pro Ser Ser Leu Leu Phe Ser Ala Gln
305                 310                 315                 320
Ser Tyr Ser Gly Ala Ala Ala Tyr Leu Ser Tyr Phe Thr Lys Met Ala
                325                 330                 335
Thr Ser
```

<210> 39328
<211> 125
<212> PRT
<213> A.fumigatus

<400> 39328

```
Ile Ser Lys Arg Gly Lys Pro Phe Asp Phe Gly Leu Pro Ser Lys Val
1               5                   10                  15
Ile Ala Gly Glu Ser His Thr Gly Gly Ile Ser Leu Gly Gln Thr Pro
            20                  25                  30
Pro Arg Glu Val Ile Leu Arg Asp Val Asp Glu Lys Pro Leu Lys Asn
        35                  40                  45
Leu Phe Pro Val Ser Thr Gly Gly Gly Ser Leu Phe Asn Met Thr Ala
    50                  55                  60
Ser Glu Ala Gln Thr Glu Glu Leu Phe Asn Asn Ser Phe Ala Leu Ser
65                  70                  75                  80
Leu Arg Asn Leu Tyr Val Val Arg Ile Pro Asp Cys Met Leu Ser Gln
                85                  90                  95
Gln Leu Leu Glu Phe Thr Ala Asn Ser Ile Ser Gln Ile Asn Leu Trp
            100                 105                 110
Ser Leu Arg Pro Asp Pro Phe Ser Ser Val Leu Ala Thr
        115                 120                 125
```

<210> 39329
<211> 249
<212> PRT
<213> A.fumigatus

<400> 39329

```
Ile Ser Val Ser Glu Leu Leu Ser Pro Lys Asn Lys Gln Gln Lys Gln
1               5                   10                  15
Thr Ser His Pro Pro Ser Lys Thr Asp Ile Lys Asn Arg Phe Gly Ala
            20                  25                  30
Arg Asp Gly Leu Gly Ala Tyr Ile Glu Lys Pro Glu Ser Tyr Pro Ser
```

```
        35                  40                  45
Ser Val Val Val His Tyr Asp Asp Asp Phe Val Val Ile His Asp Met
    50                  55                  60
Phe Pro Lys Ser Thr Leu His Leu Leu Leu Leu Pro Arg Asp Pro Thr
65                  70                  75                  80
Lys Thr Arg Leu His Pro Phe Glu Ala Phe Glu Asp Ala Glu Phe Leu
                85                  90                  95
Ser Lys Val Lys Ala Glu Thr Arg Lys Leu Arg Thr Leu Ala Ala Ala
            100                 105                 110
Glu Leu Arg Arg Lys Tyr Gly Arg Tyr Ser Ala Gln Asp Lys Glu Arg
        115                 120                 125
Gln Asp Ala Leu Asn Ala Asp Pro Pro Pro Asp Val Leu Pro Gln Gly
    130                 135                 140
Arg Asp Trp Glu Lys Glu Val Met Cys Gly Ile His Ala His Pro Ser
145                 150                 155                 160
Met Asn His Leu His Ile His Ile Ile Ser Val Asp Arg Tyr Ser Asp
                165                 170                 175
Arg Leu Lys His Arg Lys His Tyr Asn Ser Phe Ser Thr Pro Phe Phe
            180                 185                 190
Ile Asp Ile Glu Asp Phe Pro Leu Ala Lys Asp Asp Pro Arg Arg His
        195                 200                 205
Pro Asp Arg Glu Gly Tyr Leu Arg Arg Asp Phe Lys Cys Trp Arg Cys
    210                 215                 220
Gly Lys Glu Phe Gly Asn Arg Phe Ala Glu Leu Lys Ser His Leu Glu
225                 230                 235                 240
Ala Glu Phe Asn Glu Trp Arg Lys Leu
                245
```

<210> 39330
<211> 153
<212> PRT
<213> A.fumigatus

```
<400> 39330
Pro Phe Asp Phe Gly Arg Asn Ala Pro Phe Ile Leu Gly Val Arg Ala
1               5                   10                  15
Val Ala Leu Pro Leu Ala Ala Gly Asn Thr Ala Ile Leu Lys Gly Ser
            20                  25                  30
Glu Leu Ala Pro Lys Cys Phe Trp Ala Ile Gly Asp Ile Phe Arg Glu
        35                  40                  45
Ala Gly Leu Pro Ala Gly Cys Leu Asn Val Leu Tyr His Lys Thr Ala
    50                  55                  60
Asp Ala Ala Glu Val Thr Thr Ala Leu Ile Ala His Pro Ala Val Arg
65                  70                  75                  80
Lys Val Asn Phe Thr Gly Ser Thr Gln Val Gly Ser Ile Ile Ala Ala
                85                  90                  95
Thr Ala Gly Lys Tyr Thr Lys Pro Val Leu Leu Glu Leu Gly Gly Lys
            100                 105                 110
Ala Ser Ala Ile Val Leu Asp Asp Ala Asn Leu Glu Lys Ala Ala Phe
        115                 120                 125
Cys Cys Ala Leu Gly Ser Phe Met His Val Ser Ile Gly Ser Leu Thr
    130                 135                 140
Pro Trp Asp Ala Phe Arg Arg Leu Thr
145                 150
```

<210> 39331

<211> 150
<212> PRT
<213> A.fumigatus

<400> 39331
Asn Gln Ser Gly Gln Ile Cys Met Ser Thr Glu Arg Ile Val Val Gln
1 5 10 15
Arg Ala Ile Ala Asp Lys Phe Arg Gln Leu Leu Ala Glu Asn Ala Glu
20 25 30
Lys Leu Phe Gly Lys Ala Ala Pro Ala Pro Val Leu Val Thr Ser Ala
35 40 45
Ala Val Lys Lys Asn Lys Thr Leu Val Ala Asp Ala Leu Ser Lys Gly
50 55 60
Ala Ser Val Leu Phe Gly Asp Ala Asn Ala Thr Glu Ser Ser Asp His
65 70 75 80
Ser Leu Arg Pro Val Ile Val Asp Asn Val Thr Lys Asp Met Asp Leu
85 90 95
Tyr Ser Thr Glu Ser Phe Gly Pro Thr Val Ser Leu Ile Val Val Asp
100 105 110
Thr Glu Glu Asp Ala Ile Ala Leu Ala Asn Asp Thr Glu Tyr Gly Leu
115 120 125
Thr Ser Ala Val Phe Thr Asp Asn Leu Phe Arg Gly Leu Arg Val Ala
130 135 140
Lys Gln Ile Glu Ala Gly
145 150

<210> 39332
<211> 219
<212> PRT
<213> A.fumigatus

<400> 39332
Ser Ser Arg Lys Thr Lys Met Arg Phe Val Thr Val Ala Ile Ser Ala
1 5 10 15
Leu Val Ala Met Ala Ser Ala Tyr Thr Gln Pro Asp Tyr Ser Lys Pro
20 25 30
Pro Gln Gly Asn Ala Ile Leu Lys Pro Gly Leu Asn Glu Gln Val Pro
35 40 45
Val Gly Lys Pro Tyr Thr Ile Thr Trp Asp Pro Thr Thr Glu Gly Pro
50 55 60
Val Ser Leu Val Leu Leu Arg Gly Pro Ser Thr Asn Val Val Pro Leu
65 70 75 80
Ser Thr Ile Val Glu Ser Ile Pro Asn Thr Gly Ser Tyr Ser Trp Thr
85 90 95
Pro Ser Thr Asp Leu Glu Asn Asp Val Thr His Tyr Gly Leu Leu Leu
100 105 110
Val Val Glu Gly Thr Gly Gln Tyr Gln Trp Ser Thr Gln Phe Gly Ile
115 120 125
Ser Asn Pro Gly Lys Ala Ala Asp Thr Pro Ala Ala Ser Val Thr Ala
130 135 140
Thr Thr Ser Ala Thr Ser Glu Val Glu Thr Pro Ala Ala Ser Ser Pro
145 150 155 160
Ala Asp Ser Asn Val Thr Leu Val Thr Thr Glu Thr Thr Thr Trp Cys
165 170 175
Pro Glu Ser Thr Ala Lys Pro Thr Ser Ile Pro Val Ile Val Pro Thr
180 185 190

```
Gly Ala Pro Ser Ile Pro Ser Gly Ser Pro Thr Pro Ser Ala Tyr Pro
        195                 200                 205
Ser Ser Thr Leu Asp Gln Gly Pro Lys Lys Arg
    210                 215
```

<210> 39333
<211> 174
<212> PRT
<213> A.fumigatus

<400> 39333

```
Phe Ser Leu Val Ile Ile Ser Ala Leu Asp Thr Pro Ala Glu Glu Ile
1               5                   10                  15
Val Asn Met Ala Ala Asn Gly Ala Lys Ala Asp Ser Gly Val Ile Pro
            20                  25                  30
Leu Ile Ile Asn Asn Glu Ser Ile Val Thr Glu Asn Val Phe Asp Ile
        35                  40                  45
His Ala Pro Ala Thr Gly Gln Val Leu His Gln Cys Ala Ala Ala Ser
    50                  55                  60
Val Asp His Ala Asn Arg Ala Val Ala Ala Ala Lys Ala Ala Phe Pro
65                  70                  75                  80
Ala Trp Ser Arg Met Lys Pro Tyr Asp Arg Arg Asp Val Leu Met Lys
                85                  90                  95
Ala Ala Asp Ile Met Phe Ala Arg Ser Glu Glu Leu Ile Lys Tyr Gln
            100                 105                 110
Met Glu Glu Thr Gly Ala Gly Arg Met Phe Ala Glu Lys Thr Cys Leu
        115                 120                 125
Leu Gly Ala Gly Phe Leu Lys Asp Phe Ala Ala Arg Ile Pro Ser Ile
    130                 135                 140
Glu Gly Ser Val Pro Ser Val Thr Gln Asp Gly Glu Cys Ala Met Val
145                 150                 155                 160
Phe Lys Glu Pro Tyr Gly Val Val Leu Gly Ile Ala Pro Trp
                165                 170
```

<210> 39334
<211> 102
<212> PRT
<213> A.fumigatus

<400> 39334

```
Val Leu Pro Val Lys Phe Thr Leu Arg Thr Ala Gly Trp Ala Ile Arg
1               5                   10                  15
Ala Val Val Thr Ser Ala Ala Ser Ala Val Leu Trp Tyr Arg Thr Phe
            20                  25                  30
Lys His Pro Ala Gly Arg Pro Ala Ser Arg Lys Met Ser Pro Ile Ala
        35                  40                  45
Gln Lys His Leu Gly Ala Ser Ser Glu Pro Leu Arg Met Ala Val Leu
    50                  55                  60
Pro Ala Ala Ser Gly Ser Ala Thr Ala Arg Thr Pro Arg Met Asn Gly
65                  70                  75                  80
Ala Phe Leu Pro Lys Ser Asn Gly Gln Phe Leu Cys Glu Asp Asp Val
                85                  90                  95
Ala Lys Ala Asp Ser Lys
            100
```

<210> 39335

<211> 67
<212> PRT
<213> A.fumigatus

<400> 39335
Val Ile Thr Ser Pro Ser His Ile Asn Ser Ala Arg Arg Gly Ala Lys
1 5 10 15
Ile Arg Ile Ser Ala Asn Lys Gln Leu Thr Tyr Tyr Gln Val Arg Ser
20 25 30
Phe Lys Ser Ile Asn Gly Val Gln Pro Leu Ser Phe Ile Ile Ser Val
35 40 45
Glu Pro Gln Phe Val Ser Gln Lys Tyr Tyr Glu His Ser Ser Leu Gln
50 55 60
Ser Pro Gly
65

<210> 39336
<211> 67
<212> PRT
<213> A.fumigatus

<400> 39336
Arg Arg Val Ala Gly Ile Glu Ile Cys Trp Trp Pro Gly Gly Ile Ile
1 5 10 15
Tyr Asn Glu Gly Trp Glu Ala Leu Tyr Thr Ala Val Val Met Arg Ser
20 25 30
Gly Asn Ile Phe Ile Asp Leu Val Leu Tyr Trp Asp Ser Cys Arg Val
35 40 45
Ser Leu His Cys Ser Thr Gln Pro Asn Asn Cys Asn Arg Lys Ile Val
50 55 60
Leu Leu Trp
65

<210> 39337
<211> 169
<212> PRT
<213> A.fumigatus

<400> 39337
Gly Trp Met Pro Lys Thr Ile Glu Leu Thr Asn Ile Asp Val Gln Met
1 5 10 15
Val Glu Gln Lys Pro Leu Arg Val Leu Val Ile Ile Ser Asp Thr Asn
20 25 30
Ala Tyr Trp Glu Lys Ser Trp Ser Ala Ser Glu Asp Leu Leu Pro Val
35 40 45
Ala Phe Glu Ile Leu Gln Glu Asn Cys Leu Val Glu Asn Thr Tyr Lys
50 55 60
His Trp Pro Lys Met Arg Leu Leu Ala Lys Glu Lys Trp Ala Thr Arg
65 70 75 80
Val Phe Leu Ile Phe Asp Ile Ser Asn Thr Ser Tyr Asp Pro Glu Val
85 90 95
Gly His Leu Pro Gln Gln Asn Asn Leu Pro Val Ala Ile Val Arg Leu
100 105 110
Gly Ala Thr Val Gln Ala Tyr Thr Ala Ala Ile Pro Val Gln Asn Lys
115 120 125
Ile Asn Lys Asp Val Ala Arg Ala His Asn Asn Ser Gly Ile Lys Ser

```
    130                 135                 140
Leu Pro Pro Phe Val Val Asp Tyr Thr Ser Gly Pro Pro Thr Tyr Leu
145                 150                 155                 160
Asn Pro Arg Asp Pro Ser Leu Leu Arg
                165
```

<210> 39338
<211> 67
<212> PRT
<213> A.fumigatus

<400> 39338

```
Ser Leu Thr Arg Thr Val Leu Pro Leu Leu Lys Pro Glu Phe Ser Met
1               5                  10                  15
Ala Asp Glu Ser Val Cys Asn Thr Asn Phe Tyr Thr Leu Leu Asp Glu
            20                  25                  30
Glu Val Trp Val Phe Arg Met Asp Leu Ser Lys Val Lys Ala Val Leu
        35                  40                  45
Gln Cys Tyr Ile Thr Arg Ser Arg Asn Ile Phe Leu Ile Ala Val Thr
    50                  55                  60
Val Tyr Leu
65
```

<210> 39339
<211> 102
<212> PRT
<213> A.fumigatus

<400> 39339

```
Arg Phe Thr Lys Ala Pro Val Thr Asn Phe Cys Ile Lys Trp Tyr Trp
1               5                  10                  15
Ser Phe His Asp Ala Lys Tyr Phe Ile Leu Pro Val Ser Pro Ser Thr
            20                  25                  30
Arg Tyr Pro Ser Gly His Val Asp Ile Ser Pro Arg Met Tyr Gln Gly
        35                  40                  45
Phe Leu Leu Glu Asp His Ile Asn His Pro His Met Ala Arg Lys Met
    50                  55                  60
Ala Pro Asn Leu Ala Leu Ser Thr Leu Glu Phe Ile His Asp Met Ile
65                  70                  75                  80
Leu Ser Asn Lys Leu Thr Tyr Ser Gln Ile Ala Asn Ala Ala Gly Cys
                85                  90                  95
Tyr Leu Ser Thr Ile Thr
            100
```

<210> 39340
<211> 75
<212> PRT
<213> A.fumigatus

<400> 39340

```
Pro Glu Leu Lys Ser Ile Leu Val Ile Gly Asp Ala Ser Phe His His
1               5                  10                  15
Ser Lys Arg Leu Glu Gln Met Cys Ala Glu Ala Gly Val Lys Leu Val
            20                  25                  30
Tyr Leu Pro Pro Tyr Ser Pro Asp Leu Asn Leu Ile Lys Glu Leu Phe
        35                  40                  45
```

```
Ser Lys Leu Lys Ala Phe Ile Arg Arg His Trp Gln Val Tyr Glu Asp
    50                  55                  60
Asn Pro Asp Gln Gly Phe Asp Ser Phe Leu Lys
65                  70                  75
```

<210> 39341
<211> 125
<212> PRT
<213> A.fumigatus

<400> 39341

```
Leu Phe Ile Arg Gly Ser Pro Ala Pro Val Glu Lys Thr Ala Gly Asp
1               5                   10                  15
Val Ser Gly Ala Pro Lys Val Arg Ala Met Gln Leu Ile Ala Glu Leu
            20                  25                  30
Glu Gly Glu Lys Arg Gly Val Tyr Ala Gly Ala Val Gly Tyr Phe Gly
        35                  40                  45
Phe Asp Ser Ser Ser Ala Asp Gly Ala Asn Leu Val Pro Gly Ala Met
    50                  55                  60
Asp Thr Cys Ile Ala Leu Arg Thr Met Leu Leu Lys Asp Gly Val Ala
65                  70                  75                  80
Tyr Leu Gln Ala Gly Gly Gly Ile Val Phe Asp Ser Asp Pro Tyr Asp
                85                  90                  95
Glu Tyr Val Glu Thr Leu Asn Lys Leu Gly Ala Asn Ile Gln Cys Ile
            100                 105                 110
Lys Gly Ala Glu Asp Lys Tyr Leu Ser Met Glu Gln Leu
        115                 120                 125
```

<210> 39342
<211> 459
<212> PRT
<213> A.fumigatus

<400> 39342

```
Val Phe Glu Arg Pro Gly Arg Pro Leu Ala Asn Glu Arg Tyr Leu Leu
1               5                   10                  15
Cys Arg Thr Val Arg Val Ala Ala Glu Glu Leu Thr Thr Leu Ile Leu
            20                  25                  30
Val Glu Asp Arg Cys Arg Ile Glu Arg Ser Asp Arg Lys Leu Trp Lys
        35                  40                  45
Ser Arg Val Asn Gly Leu Asp Glu Tyr Gln Ser His Gly Pro Glu Pro
    50                  55                  60
Ser Arg Arg Ser Asp Arg Arg Glu Arg Arg Arg Pro Ala Asp Asp Glu
65                  70                  75                  80
Asp Ile Glu Tyr Arg Leu Ala Ile Glu Ala Ser Lys Ala Glu Ala Glu
                85                  90                  95
Glu Glu Arg Lys Arg Arg Glu Lys Gln Ser Met Met Gly Glu Glu Asp
            100                 105                 110
Glu Asp Leu Ala Lys Ala Ile Lys Leu Ser Lys Glu Glu Glu Glu Leu
        115                 120                 125
Arg Lys Arg Glu Leu Glu Glu Ser Asn Ala Gln Ser Leu Phe Asp Asp
    130                 135                 140
Thr Pro Val Ala Gln Ser Gln Pro Thr Gly Tyr Asn Gln Gly Tyr Gln
145                 150                 155                 160
Gln Gln Gly Ala Val Asp Trp Phe Gly Asn Pro Ile Asn Ala Gln Gln
                165                 170                 175
```

```
Pro Leu Ser Thr Gly Tyr Leu Asn Asn Gln Tyr Ala Gln Pro Thr Gly
            180                 185                 190
Phe Gln Asn Gln Val Thr Gly Ile Pro Asn Gly Tyr Ala Asn Gly Phe
        195                 200                 205
Gln Asn Gln Pro Thr Ala Phe Asp Gln Asn Pro Tyr Gly Gln Leu Gln
    210                 215                 220
Asn Asn Phe Leu Gln Pro Gln Ala Pro Leu Gln Pro Gln Gln Thr Ala
225                 230                 235                 240
Phe Thr Thr Asn Asn Pro Tyr Gly Thr Asp Ile Phe Ser Gln Gln Gln
                245                 250                 255
Gln Gln Gln Gln Tyr Gln Gln Tyr Gln Gln Gln Gln Gln Ala Gln Glu
            260                 265                 270
Asn Val Ser Pro Ala Gly Ser Asn Asn Pro Trp Ala Gln Ser Gly Asn
        275                 280                 285
Gln Thr Ala Asn Ala Leu Gln Pro Met Pro Thr Gly Ser Asn Asn Pro
    290                 295                 300
Phe Ala Ala Arg Thr Gln Phe Gln Thr Arg Pro His Thr Ser Thr Gly
305                 310                 315                 320
Pro Pro Ser Leu Asn Thr Leu Ala Glu Glu Arg Ala Thr Asn Gln Phe
                325                 330                 335
Thr Ser Ser Pro Asn Pro Ile Ala Asn Phe Gln Ala Pro Ala Pro Pro
            340                 345                 350
Lys Ser Thr Pro Pro Gln Thr Ser Asn Pro His His Ala Arg Leu Asn
        355                 360                 365
Ala Leu Leu Ala Thr Gly Glu Gly Gln Asp Thr Phe Gly Asn Val Gly
    370                 375                 380
Asp Leu Arg Ile Pro Ala Gln His Thr Ala Pro Gly Thr Phe Val Asn
385                 390                 395                 400
Ser Ala Gly Gln Gly Leu Asp Arg Leu Arg Ala Thr His Thr Gly Asn
                405                 410                 415
Asn Pro Phe Tyr Asn Gln Gln Gln Phe Val Pro Gln Ser Thr Gly Phe
            420                 425                 430
Ala Gln Ser Ser Asn Asn Pro Trp Ala Thr Gln Arg Pro Tyr Gln Gln
        435                 440                 445
Gln Pro Gln Ala Gly Gly Ser Leu Ile Asp Leu
    450                 455

<210> 39343
<211> 78
<212> PRT
<213> A.fumigatus

<400> 39343
Ile Ser Ile Val Glu Tyr Lys Lys Leu Gln Ser Pro Met Glu Arg Arg
1               5                   10                  15
Glu Leu Lys His Arg Ser Tyr Leu Ile His Ala Ser Ser Ile Glu Ile
            20                  25                  30
Thr Lys Leu Asn His Val Arg Gln Gly Tyr Leu Lys Ile Ile Ser Gly
        35                  40                  45
Lys His Arg Ser Ser Gly Thr Thr Asn Thr Met Tyr Val Pro Ile His
    50                  55                  60
Gln Glu Ala Phe Gln Ile Glu Pro Ala Glu Gln Pro Thr Ile
65                  70                  75

<210> 39344
<211> 104
```

<212> PRT
<213> A.fumigatus

<400> 39344
Ile Asn Gln Pro Pro Arg Ser Pro Asn Phe Leu Ala His Ser Ser Tyr
1 5 10 15
Ser Arg Ser Pro Ser Arg Leu Thr Leu Gly Leu Met Asp Leu Arg Leu
20 25 30
Ala Ser Lys Ser Trp Lys Arg Met Gly Arg Ile Trp Ser Met Gly Val
35 40 45
Trp Arg Arg Ala Ser Pro Arg Leu Arg Arg Gly Pro Ile Ala Ala Ser
50 55 60
Leu Ala Arg Ala Val Met Ser Glu Pro Glu Lys Pro Val Ile Val Asp
65 70 75 80
Asp His Val Ser Ile Val Asp Lys Glu Ile Glu Trp Gly Ile Met Met
85 90 95
Met Ile Glu Leu Pro Ser Val Thr
100

<210> 39345
<211> 182
<212> PRT
<213> A.fumigatus

<400> 39345
Phe Tyr His His His Tyr Ser Pro Leu Tyr Phe Leu Ile Tyr Asn Thr
1 5 10 15
His Val Ile Ile Asn Asn His Arg Leu Leu Arg Leu Arg His His Arg
20 25 30
Pro Arg Gln Arg Arg Arg Asn Gly Ser Ser Pro Gln Pro Arg Arg Ser
35 40 45
Pro Pro Pro His Pro His Gly Pro Asn Pro Ser His Pro Leu Pro Arg
50 55 60
Leu Arg Ser Gln Ser Gln Ile His Gln Ala Gln Arg Gln Ser Arg Arg
65 70 75 80
Thr Thr Arg Ile Arg Gly Val Gly Gln Lys Ile Arg Arg Thr Gly Arg
85 90 95
Leu Ile Tyr Leu Leu Cys Ala Ser Phe Ser Val His Leu Pro Phe Gly
100 105 110
Gly Leu Arg Arg His Ile Arg Cys Leu Asp Ser Ile Val His Gly Pro
115 120 125
Arg Ser Leu Val Phe Phe Ala Gln Leu Val Ser Ala Arg Ser Tyr Ser
130 135 140
Gly Gly Leu His Val Met Leu Tyr Gly Trp Leu Phe Gly Trp Phe Asp
145 150 155 160
Leu Lys Gly Phe Leu Val Asn Arg Tyr Ile His Gly Ile Gly Gly Thr
165 170 175
Gly Gly Ala Val Leu Ser
180

<210> 39346
<211> 279
<212> PRT
<213> A.fumigatus

<220>

<221> UNSURE
<222> (1)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39346
Xaa Gly Ala His Phe Gln Pro Leu Val Lys Thr Ser Ile Thr Ser Ile
1 5 10 15
Met Asn Lys Leu Pro Lys Gly Ile Asp Pro Asn Ala Ala Arg Gln Ile
20 25 30
Leu Asn Asp Ile Val Val Arg Gly Asp Glu Val His Trp Asp Asp Ile
35 40 45
Ala Gly Leu Asp Ala Ala Lys Lys Ala Leu Lys Glu Ala Val Val Tyr
50 55 60
Pro Phe Leu Arg Pro Asp Leu Phe Ser Gly Leu Arg Glu Pro Ala Arg
65 70 75 80
Gly Met Leu Leu Phe Gly Pro Pro Gly Thr Gly Lys Thr Met Leu Ala
85 90 95
Arg Ala Val Ala Thr Glu Ser Lys Ser Thr Phe Phe Ser Val Ser Ala
100 105 110
Ser Thr Leu Thr Ser Lys Trp His Gly Glu Ser Glu Lys Leu Val Arg
115 120 125
Ala Leu Phe Gly Leu Ala Lys Ala Leu Ala Pro Ser Ile Ile Phe Val
130 135 140
Asp Glu Ile Asp Ser Leu Leu Ser Ser Arg Ser Ser Gly Thr Glu Asn
145 150 155 160
Glu Ala Ser Arg Arg Ser Lys Thr Glu Phe Leu Ile Gln Trp Ser Asp
165 170 175
Leu Gln Arg Ala Ala Ala Gly Arg Glu Pro Ser Thr Lys Arg Gly Arg
180 185 190
Gly Asp Pro Ser Gln Val Leu Val Leu Ala Ala Thr Asn Met Pro Trp
195 200 205
Asp Ile Asp Glu Ala Ala Arg Arg Arg Phe Val Arg Arg Gln Tyr Ile
210 215 220
Pro Leu Pro Glu His His Val Arg Asp Gln Gln Leu Arg Lys Leu Leu
225 230 235 240
Ser His Gln Val His Glu Leu Asp Asp Glu Asp Ile Glu Val Leu Val
245 250 255
His Val Thr Glu Gly Asn Ser Ile Ile Ile Ile Ile Pro His Ser Ile
260 265 270
Ser Leu Ser Thr Ile Leu Thr
275

<210> 39347
<211> 78
<212> PRT
<213> A.fumigatus

<400> 39347
Ser Ser Thr Ile Thr Gly Phe Ser Gly Ser Asp Ile Thr Ala Leu Ala
1 5 10 15
Lys Asp Ala Ala Met Gly Pro Leu Arg Asn Leu Gly Glu Ala Leu Leu
20 25 30
His Thr Pro Met Asp Gln Ile Arg Pro Ile Arg Phe His Asp Phe Glu
35 40 45
Ala Ser Leu Lys Ser Ile Arg Pro Ser Val Ser Arg Asp Gly Leu Arg
50 55 60

```
Glu Tyr Glu Glu Trp Ala Arg Lys Phe Gly Glu Arg Gly Gly
65                  70                  75

<210> 39348
<211> 206
<212> PRT
<213> A.fumigatus

<400> 39348
Pro Val Asp Arg Gly Cys Trp Ala Leu Met Gly Leu Pro Asn Gln Ser
1               5                   10                  15
Thr Ala Pro Cys Cys Trp Tyr Pro Trp Leu Tyr Pro Val Gly Trp Asp
            20                  25                  30
Trp Ala Thr Gly Val Ser Ser Lys Ser Asp Trp Ala Leu Leu Ser Ser
        35                  40                  45
Ser Ser Arg Phe Arg Ser Ser Ser Ser Ser Leu Leu Asn Leu Ile Ala
    50                  55                  60
Leu Ala Arg Ser Ser Ser Ser Ser Pro Ile Met Asp Cys Phe Ser Arg
65                  70                  75                  80
Arg Phe Arg Ser Ser Ser Ala Ser Ala Leu Leu Ala Ser Ile Ala Arg
                85                  90                  95
Arg Tyr Ser Met Ser Ser Ser Ser Ala Gly Arg Arg Arg Ser Arg Arg
            100                 105                 110
Ser Asp Arg Arg Glu Gly Ser Gly Pro Trp Leu Trp Tyr Ser Ser Ser
        115                 120                 125
Pro Phe Thr Arg Asp Phe Gln Ser Leu Arg Ser Asp Arg Ser Met Arg
    130                 135                 140
Gln Arg Ser Ser Thr Arg Met Arg Val Val Ser Ser Ser Ala Ala Thr
145                 150                 155                 160
Arg Thr Val Arg His Lys Arg Tyr Arg Ser Leu Ala Lys Gly Leu Pro
                165                 170                 175
Gly Arg Ser Asn Thr His Arg Glu Thr Thr Tyr Arg Ser Gly Gln Gly
            180                 185                 190
Leu Ser Arg Pro His Pro Arg Ile Gly Thr Arg Ala Val Ser
        195                 200                 205

<210> 39349
<211> 93
<212> PRT
<213> A.fumigatus

<400> 39349
His Cys Arg Arg Ser Pro Pro Val Thr Ala Ala Arg Asp Pro Ala Thr
1               5                   10                  15
Asn Ser Val Asp Ile Cys Ile Asp His Val Asn Ala Gln Tyr Ile Arg
            20                  25                  30
Thr Leu Pro Val Ser Ala His Arg Arg Pro Val Leu Val Gly Cys Arg
        35                  40                  45
Leu Tyr Arg Ile Glu Gln Pro Asp Gly Met Ser Tyr Ser Pro Val Ala
    50                  55                  60
Gln Lys Tyr Arg Gly Ile Ile Arg His Ile Ser Ala Phe Ser Ser Gly
65                  70                  75                  80
Ala Leu Asp Gly Gly Ser Arg Cys Gly Arg Asn Glu Arg
                85                  90

<210> 39350
```

<211> 1400
<212> PRT
<213> A.fumigatus

<400> 39350

```
Leu Gln Thr Met Trp Met Leu Arg Pro Phe Asn Gln Pro Arg Glu Val
1               5                  10                  15
Thr Ile Asp Leu Pro Pro Leu Leu Val Glu Ser Leu Gly Val Gly Ala
            20                  25                  30
Glu Val Leu Ala Asn Tyr Leu Thr Thr Leu Ala Glu Ala Ala Ala Asn
        35                  40                  45
Glu Pro Asp Pro Ser Lys Tyr Pro Ala Pro Asn Pro Val Leu Cys Arg
    50                  55                  60
Ile Cys Glu Arg Gln Ile Thr Pro Trp Trp Phe Glu Lys His Ser Asp
65                  70                  75                  80
Leu Cys Leu Gln Glu His Arg Ala Glu Met Asp Val Gln Ile Ala Gln
                85                  90                  95
Glu Asn Leu Asn Glu His Arg His Ala Ile Val Lys Val Leu Asp Ala
            100                 105                 110
Leu Glu Ala Arg Gln Ser Arg Pro Leu Ala Gly Glu Thr Pro Ser Pro
        115                 120                 125
Met Pro Gln Pro Glu Tyr Lys Gly Leu Ala Ile Gly Pro Ser Pro Ala
    130                 135                 140
Val Ser Ala Pro Ser Ser Gly Asn Val Ser Ser Ser Ser Ser Ala Pro
145                 150                 155                 160
Cys Thr Pro Pro Arg Ser Arg Glu His Ser Ala Ser Asp Gly Gly His
                165                 170                 175
Ala Arg Gly Arg Ser Phe Ala Val Arg Arg Pro Leu Thr Arg Ile Val
            180                 185                 190
Glu Leu Ile Leu Asp Leu Cys Asp Thr Ala Leu Glu Ile Asn Met Pro
        195                 200                 205
Val Ile Lys Glu Pro Arg Gly Asp Ser Leu Asp Asp Phe Arg Thr Leu
    210                 215                 220
Ser Pro Gln Ser Glu Ser Arg Ile Ser Gln Val Met Gln Trp Gln Ser
225                 230                 235                 240
Pro Ser Ser Asn Thr Leu Glu Gln Glu Gln Gly Leu Ala Ala Leu Ser
                245                 250                 255
Ala Asp Thr Glu Gln Val Cys Lys Ala Lys Val Asp Ala Val Ile Arg
            260                 265                 270
His Arg Lys Ile Val Glu Tyr Ala Glu Arg Ile Arg Ile Glu Tyr Thr
        275                 280                 285
Val Met Val Glu Asp Cys Ile Ala Ala Ala Leu Ser Lys Ala Glu Arg
    290                 295                 300
Ile Ala Ala Gly Gln Leu Ser Asp Ser Thr Cys Ser Ser Glu Asp Glu
305                 310                 315                 320
Leu Pro Pro Glu Ser Val Thr Ala Ser Ser Ala Thr Ala Asn Gly Ser
                325                 330                 335
Ser Thr Ala Val Val Pro Pro Leu Ser Pro Gln Pro Val Thr Arg Gln
            340                 345                 350
Pro Thr Pro Ser Thr Ser Ala Leu Thr Met Ser Met Arg Asn Thr Ser
        355                 360                 365
Glu Arg Phe Gln Phe Pro His Thr Glu Gly Arg Ser Ser Ser Val Ala
    370                 375                 380
Val Ser Thr Gly Ser Asn Ser Pro Met Glu Cys Pro Thr Pro Arg Ser
385                 390                 395                 400
His Arg Ser Thr Ala Gly Leu Leu Gly Thr Ser Gln Pro Ser Arg Arg
```

```
                405                 410                 415
Gly Leu Ser Met Val Asp Leu Asp Ala Gly Glu Met Ser Asp Ser Ser
            420                 425                 430
Val Leu Ser Ser Ala Phe Thr Gly Ala Val Arg Thr Glu Ser Pro Ala
        435                 440                 445
Ser Asp Arg Ser Leu Glu Arg Lys Arg Arg Ser Leu Val Leu Pro Gly
    450                 455                 460
Leu Ser Ser Ser Pro Arg Arg Gln Pro Ser Pro Ala Arg Met Ser Thr
465                 470                 475                 480
Pro His Ser Pro Leu Arg Met Pro Lys Pro Arg Leu Ser Ser Gly Ala
                485                 490                 495
Glu Ser Leu Pro Ser Pro Ile Val Ser Pro Ser Thr His Ala Ser Glu
            500                 505                 510
Leu Ala His Tyr His Tyr Arg His His Arg Arg Gln Ser Ser Ala Thr
        515                 520                 525
Ser Ser Asp Ala Thr Lys Pro Pro Val Ser Pro His Leu Thr Ser Ala
    530                 535                 540
Ser Gln Pro Gln Pro Arg Pro Ala Pro Ser Ser Ile Lys Asp Phe Glu
545                 550                 555                 560
Ile Ile Lys Pro Ile Ser Lys Gly Ala Phe Gly Ser Val Tyr Leu Ser
                565                 570                 575
Lys Lys Lys Ser Thr Gly Glu Tyr Phe Ala Ile Lys Val Leu Lys Lys
            580                 585                 590
Ala Asp Leu Val Ala Ile Asn Gln Val Thr Asn Val Lys Ala Glu Arg
        595                 600                 605
Ala Ile Met Met Trp Gln Gly Glu Ser Asp Phe Val Ala Lys Leu Tyr
    610                 615                 620
Trp Thr Phe Ser Ser Lys Asp Tyr Leu Tyr Leu Val Met Glu Tyr Leu
625                 630                 635                 640
Asn Gly Gly Asp Cys Ala Ser Leu Val Lys Val Leu Gly Gly Leu Pro
                645                 650                 655
Glu Asp Trp Ala Lys Lys Tyr Ile Ala Glu Val Val Leu Gly Val Glu
            660                 665                 670
His Leu His Ser Arg Gly Ile Val His Arg Asp Leu Lys Pro Asp Asn
        675                 680                 685
Leu Leu Ile Asp Gln Arg Gly His Leu Lys Leu Thr Asp Phe Gly Leu
    690                 695                 700
Ser Arg Met Gly Leu Val Gly Arg Gln Lys Arg Val Leu Lys Ser Leu
705                 710                 715                 720
Asn Glu Pro Ala Pro Asp Leu Leu Lys Gln Gly Pro Phe Pro Arg Ala
                725                 730                 735
Thr Ser Ile Ala Ser Ser Arg Ser Ala Ser Phe Asp Phe Gln Ala Pro
            740                 745                 750
Gly Ser Pro Gly Ser Thr Pro Leu Met Thr Pro Asp Leu Ser Gly Ser
        755                 760                 765
Leu Asn Gln Pro Ser Tyr Phe Ser Leu Asn Gln Ser Gly Leu Ser Arg
    770                 775                 780
Gln Pro Ser Arg Arg Ala Ser Gly Tyr Arg Ser Asp Ser Gly Gly Ser
785                 790                 795                 800
Glu Asn Leu Ser Ala Met Phe Arg Asn Phe Ser Leu Thr Glu Gly Asn
                805                 810                 815
Glu Thr Ala Ser Ser Leu Pro Pro Ser Ser Leu Pro Val Pro Val Pro
            820                 825                 830
Ser Ser Ser Asn Val Ala Glu Glu Glu Ser Gln Ser Glu Ala Gly Glu
        835                 840                 845
Ser Pro Arg Leu Tyr Pro Leu Leu Pro Thr Leu Ser Asn Ser Val Pro
```

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    850                 855                 860
Leu Ser Thr Pro Pro Gln Gln Ser Met Met Pro Pro Leu Met Ala Leu
865                 870                 875                 880
Phe Asp Pro Glu Asp His Asn Arg Arg Phe Val Gly Thr Pro Asp Tyr
                885                 890                 895
Leu Ala Pro Glu Thr Ile Asn Gly Leu Gly Gln Asp Glu Met Ser Asp
            900                 905                 910
Trp Trp Ser Leu Gly Cys Ile Met Phe Glu Phe Leu Phe Gly Tyr Pro
        915                 920                 925
Pro Phe Asn Ala Pro Thr Pro Asp Glu Val Phe Glu Asn Ile Leu His
    930                 935                 940
Gln Arg Ile Asn Trp Pro His Glu Ala Glu Glu Leu Ala Ser Gln Glu
945                 950                 955                 960
Ala Ile Asp Leu Met Lys Arg Leu Met Thr Leu Asp Pro Arg Glu Arg
                965                 970                 975
Ile Gly Ala Asn Val Gly Asp Lys Phe Pro Asn Gly Gly Ala Glu Ile
            980                 985                 990
Arg Ser His Pro Trp Phe Ser Asp Ile Asn Trp Glu Thr Leu Leu Glu
        995                 1000                1005
Asp Lys Ala Gln Phe Val Pro Asn Leu Glu Asn Pro Glu Asp Thr Glu
    1010                1015                1020
Tyr Phe Asp Ala Arg Gly Ala Thr Leu Gln Pro Phe Ala Glu Glu Leu
1025                1030                1035                1040
Glu Glu Gly Ile Ser Ser Gln His Val Thr Ala Ala Asp Arg Pro His
                1045                1050                1055
Asp Ala Leu Phe Lys Val Arg Ser Gln Val Asn Ser Met Lys Arg Pro
            1060                1065                1070
Leu Met Pro Leu His Ile Pro Pro His Val Arg Asp Ser Arg Ser Arg
        1075                1080                1085
Arg Leu Ser Glu Pro Ala Leu Ala Asp Asp Phe Gly Ser Phe Ser Phe
    1090                1095                1100
Lys Asn Leu Pro Met Leu Glu Lys Ala Asn Lys Asp Val Ile Gln Lys
1105                1110                1115                1120
Leu Arg Gln Glu Ala Leu Gln Ala Gln Gln Arg Gln Tyr Ser Ser Ser
                1125                1130                1135
Ile Pro Gln Ala Ile Pro Pro Thr Gln Gly Ser Ala Ala Thr Ser Gly
            1140                1145                1150
Pro Leu Leu Glu Gly Ser Pro Leu Pro Met Pro Leu Gln Arg Thr Leu
        1155                1160                1165
Ser His Asn Lys Gly Asn Asn Arg Pro Ser Ser Pro Ser Ser Leu Ser
    1170                1175                1180
Gln Ala Asn Ser Ser Pro Ser Arg Pro Ser Gln Pro Ser Ser Pro Leu
1185                1190                1195                1200
Leu Val Gln Phe Ser Thr Gly Asn Asn His Glu Arg Arg Lys Thr Ser
                1205                1210                1215
Gly Ser Ser Ser Thr Asn Ser His Gln Ser Ser Gly Ser Phe Ala Thr
            1220                1225                1230
Gly Ser Thr Asp Gln Gly Arg Met Ala Asn Ile Lys Leu Gly Ser Ser
        1235                1240                1245
Ala Ser Ser Pro Ile Lys Ile Gly Arg Gly Gly Thr His Ser Pro Asp
    1250                1255                1260
Lys Thr Pro Ser Gly His Arg Gln Gly Ser Ile Pro Thr Thr Arg Ala
1265                1270                1275                1280
Arg Ser Gln Thr Ile Gly Ser Gln Asp Gly Glu Phe Ser Ser Ser Leu
                1285                1290                1295
Ala Lys Glu Ser Tyr Val Ala Gly His Tyr Lys Arg Arg Ser Gln Leu
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            1300                1305                1310
Phe Asp Ile Ser Pro Ser Ser Ser Asp Asn Glu Asp Pro Arg Thr Lys
        1315                1320                1325
Ala Leu Leu Lys Val Gln Arg Arg Arg Gln Ser Ser Arg Arg Leu Ser
    1330                1335                1340
Gln Ile Asn Ile Leu Asp Gly Pro Phe Phe Arg Pro Leu Asp Val Leu
1345                1350                1355                1360
Ile Cys Glu Asp His Pro Val Ser Arg Met Val Met Glu Arg Leu Phe
                1365                1370                1375
Glu Lys Leu Arg Cys Arg Thr Ile Thr Ala Val Val Phe Thr Thr Gly
            1380                1385                1390
Leu Ala Gly Ser Ala Leu Thr Tyr
        1395                1400

<210> 39351
<211> 64
<212> PRT
<213> A.fumigatus

<400> 39351
Arg Val Met Ser Glu Trp Val Glu Thr Tyr Met Ala Arg Pro Ile Trp
1               5                   10                  15
Arg Pro Leu Lys Tyr His Asn Ala Leu Pro Phe His Ala Gln Asp Ile
            20                  25                  30
Met Ala Val Val Tyr Phe Leu Arg Arg Leu Arg Ala Leu Thr Ala Phe
        35                  40                  45
Phe Cys His Arg Val Asp Trp Ser Gly Phe Arg Arg Val Leu Gln Tyr
    50                  55                  60

<210> 39352
<211> 136
<212> PRT
<213> A.fumigatus

<400> 39352
His Gln Val Phe Pro Arg Ser Phe Pro Phe Leu Gly Phe Leu Pro Gly
1               5                   10                  15
His Thr Val Lys Tyr Arg Ser Leu Glu Ala Pro Leu Val Asp Arg Ile
            20                  25                  30
Gln Ile Ser Ser Thr Leu Phe Ser Arg Leu Leu Phe Ser Leu Phe Leu
        35                  40                  45
Phe Ser Pro Ser His His Leu Ile Cys Thr Leu Leu Ser Gln Thr Phe
    50                  55                  60
Ala Tyr Ile Asn Thr Ser Leu Ser Val Ser Leu Ile Pro Leu Thr Lys
65                  70                  75                  80
Pro Leu Ser Thr Ser Arg Asp Lys Ala Ser Ile Ser Leu Phe Ser Ser
                85                  90                  95
Ser Phe Pro Leu Phe Ser Val Tyr Ser Ala Tyr Asn Thr Phe Tyr Leu
            100                 105                 110
His Leu Leu Leu Val Ile Ala Leu Leu Ser Gln Arg Ser Leu Ala Tyr
        115                 120                 125
Gln Ser Lys Phe Thr Leu Phe Pro
    130                 135

<210> 39353
<211> 225
```

<212> PRT
<213> A.fumigatus

<400> 39353
Leu Asn Tyr Thr Leu Ser Met Asp Ala Ala Arg Gly Val Leu Gln Arg
1 5 10 15
Arg Val Arg Ala Cys Ile Ser Arg Pro Gly Val Leu Ser Gly Arg Val
20 25 30
Ile Tyr Pro Ser Leu Trp Leu Ser Ser Ser Leu Ser Ser Leu Ser Ser
35 40 45
Ser Val Arg Ala Arg Ser Ser Pro Arg Thr Thr Val Ser Pro Leu Arg
50 55 60
Gly Gly Ala Leu Arg Glu Gly Arg Gly Leu Leu Thr Pro Val Met Ala
65 70 75 80
Gly Ala Gly Val Gly Tyr Ser Thr Thr Thr Gly Ala Ser Gly Glu Gln
85 90 95
Glu Gln Glu Gln Glu Lys Ala Gln Glu Gln Glu Gln Glu Gln Glu Pro
100 105 110
Glu Lys Ala Gln Glu Gln Glu Leu Glu Gln Gly Gln Glu Pro Glu Lys
115 120 125
Pro Gln Val Gln Ile Ser Gln Gly Glu Asp Ala Glu Gln Val Gln Gly
130 135 140
Gly Leu Glu Arg Leu Leu Glu Asn Gly Trp Val Leu Asp Gly Glu Arg
145 150 155 160
Met Gly Ile Lys Lys Thr Phe Tyr Phe Arg Ser Tyr Phe Lys Ala Val
165 170 175
Val Gly Phe Val Leu Thr Val Val Leu Arg Glu Arg Ser Arg Glu Ala
180 185 190
Asp Trp Leu Val Gln Ser Phe Leu Asn Val Val Ala Ser Gln Ser Ala
195 200 205
Thr Lys Lys His His Pro Thr Met Thr Val Val Ser Phe Leu Leu Thr
210 215 220
Cys
225

<210> 39354
<211> 531
<212> PRT
<213> A.fumigatus

<400> 39354
Tyr Ala Arg Tyr Arg Ala Gly Tyr Leu Lys Met Ala Val Pro Pro Ser
1 5 10 15
Glu Gly Val Ile Glu Ile Gly Asp Ser His His His Glu Ser Glu Ala
20 25 30
Ser Ser Ser Thr His Ala Asp His Gly Ile Asp Pro Phe Glu Lys Thr
35 40 45
Glu Pro Thr Thr Asp Val Glu Asn Val Glu Thr Val Glu Ala Ala Glu
50 55 60
Asp Lys Pro Leu Pro Ser Arg Ala Asp Lys Val Ile Lys Glu Ala Asp
65 70 75 80
Cys Tyr Asp Glu Leu Gly Tyr Ser Trp Pro Ala Trp Lys Lys Trp Thr
85 90 95
Ile Ile Ser Val Ile Phe Leu Val Gln Thr Ser Met Asn Phe Asn Thr
100 105 110
Ser Leu Tyr Ser Asn Ala Leu Thr Gly Ile Ser Glu Glu Tyr Gly Val

```
        115                 120                 125
Ser Met Gln Ala Ala Arg Cys Gly Ala Met Ile Phe Leu Val Thr Tyr
    130                 135                 140
Ala Phe Gly Cys Glu Leu Trp Ala Pro Trp Ser Glu Glu Leu Gly Arg
145                 150                 155                 160
Lys Pro Ile Leu Gln Ala Ser Leu Phe Leu Val Asn Ala Phe Gln Leu
                165                 170                 175
Pro Val Ala Leu Ala Pro Asn Phe Ala Ser Ile Met Val Gly Arg Ala
            180                 185                 190
Leu Gly Gly Leu Ser Ser Ala Gly Gly Ser Val Thr Leu Gly Met Ile
        195                 200                 205
Ala Asp Leu Trp Glu Ala Asp Asp Gln Gln Tyr Ala Val Ala Cys Val
    210                 215                 220
Val Phe Ser Ser Val Ala Gly Ser Val Ile Gly Pro Val Val Gly Gly
225                 230                 235                 240
Phe Val Glu Glu Tyr Leu Pro Trp Arg Trp Asn Ile Trp Ile Gln Leu
                245                 250                 255
Ile Phe Gly Gly Ala Val Gln Leu Ala His Leu Val Cys Val Pro Glu
            260                 265                 270
Thr Arg Thr Thr Ile Leu Met Asp Arg Ile Ala Lys Arg Arg Arg Lys
        275                 280                 285
Asn Gly Glu Asp Ile Trp Gly Pro Asn Glu Val Leu Glu Phe Arg Glu
    290                 295                 300
Arg Phe Ala Met Arg Glu Ile Leu Ser Thr Trp Ile Arg Pro Phe Lys
305                 310                 315                 320
Met Phe Leu Thr Glu Pro Ile Val Leu Ser Leu Ser Leu Leu Ser Gly
                325                 330                 335
Phe Ser Asp Ala Leu Ile Phe Met Phe Ile Gln Ser Phe Gly Leu Val
            340                 345                 350
Tyr Lys Gln Trp Gly Phe Gly Thr Ile Glu Leu Gly Leu Ser Phe Leu
        355                 360                 365
Pro Ile Leu Val Gly Tyr Phe Ile Ala Trp Ile Ser Phe Ile Pro Ala
    370                 375                 380
Ile Lys Arg Asn Ile Ile Glu Arg Arg Ala Lys Pro Gln Asp Glu Arg
385                 390                 395                 400
Ala Gln Tyr Glu Ser Arg Leu Trp Trp Leu Leu Tyr Thr Ala Pro Cys
                405                 410                 415
Leu Pro Ile Gly Leu Ile Gly Phe Ala Trp Thr Ser Gln Gly Pro Pro
            420                 425                 430
Val His Trp Ile Gly Thr Met Ile Phe Ser Ala Ile Val Gly Ile Ala
        435                 440                 445
Asn Tyr Ser Ile Tyr Met Ala Thr Ile Asp Tyr Met Val Cys Ala Tyr
    450                 455                 460
Gly Pro Tyr Ser Ala Ser Ala Thr Gly Gly Asn Gly Trp Ser Arg Asp
465                 470                 475                 480
Phe Leu Ala Gly Val Leu Thr Ile Pro Ala Thr Pro Phe Phe Glu Ser
                485                 490                 495
Glu Leu Ser Ser Ser Leu Ile Arg Leu Ile Val Thr Ala Ala Asp Thr
            500                 505                 510
Gly Leu His Arg His Trp Arg Gln Ala Ser Ser Arg Val Arg Ile Tyr
        515                 520                 525
Asp Phe Val
    530
```

<210> 39355
<211> 173

<212> PRT
<213> A.fumigatus

<400> 39355
Lys Thr Tyr Asn Ser His Gly Arg Met Met Leu Leu Cys Arg Ala Leu
1 5 10 15
Arg Arg Asn His Ile Gln Lys Ala Leu His Gln Pro Ile Ser Leu Pro
20 25 30
Arg Ser Leu Ala Lys Asn Asn Ser Gln Asp Lys Thr His His Ser Leu
35 40 45
Lys Ile Arg Pro Lys Ile Lys Arg Leu Phe Asp Ser His Ser Leu Pro
50 55 60
Val Gln His Pro Pro Val Leu Lys Gln Ala Phe Gln Ser Pro Leu Asn
65 70 75 80
Leu Phe Cys Ile Leu Thr Leu Arg Asp Leu His Leu Arg Leu Leu Arg
85 90 95
Leu Leu Pro Leu Leu Gln Leu Leu Phe Leu Arg Leu Leu Trp Leu Leu
100 105 110
Phe Leu Leu Leu Phe Leu Arg Leu Leu Leu Leu Leu Leu Leu Leu Pro
115 120 125
Arg Ser Thr Ser Ser Ser Arg Val Thr His Thr Arg Thr Arg His His
130 135 140
Arg Cys Lys Gln Pro Pro Pro Leu Thr Glu Arg Thr Ala Ala Glu Arg
145 150 155 160
Arg Asp Arg Arg Ala Gly Arg Thr Pro Arg Pro Asn Gly
165 170

<210> 39356
<211> 65
<212> PRT
<213> A.fumigatus

<400> 39356
Tyr Pro Pro Leu Ile Thr Glu Cys Leu Leu Thr Ile Cys Met Ser Pro
1 5 10 15
Ser Ala Leu Asn Leu Tyr Pro Asn Thr Leu Ile Ser Thr His Ser Ser
20 25 30
Ile Pro Pro Phe Asn His Gly Gln Val Pro Pro Val Asp Tyr Val Asp
35 40 45
Ile Arg Leu Thr Ala Tyr Arg Ser Leu Glu Ser Phe Asp Arg Lys Lys
50 55 60
Thr
65

<210> 39357
<211> 233
<212> PRT
<213> A.fumigatus

<400> 39357
Pro Tyr Ser Gly Thr Leu Val Asn Ser Ala Lys Cys Leu Leu His Ser
1 5 10 15
Asp Asp Pro Arg Pro His Gly Gly Ser Leu Gly Gly Cys Ala Thr Leu
20 25 30
Val Tyr Ile Thr Phe Gly Thr Gln Asn Ser Lys Glu Phe Cys Thr Asp
35 40 45

```
Asp Lys Gln Gly Leu Leu Ala Arg Thr Pro Asp Pro Arg Pro Arg Pro
    50                  55                  60
Leu Arg Leu His Lys Ala Gln Gln Ser Thr Pro Pro Gly Ile Pro Pro
65                  70                  75                  80
Ser Tyr Pro Phe Leu Arg Leu Arg His Ser Gln Leu Leu Pro Asp His
                85                  90                  95
Pro Pro Gln Leu Asp Arg His Arg Ala Ala Ala Gln Pro Arg Thr His
            100                 105                 110
Arg Ala Ala Arg Pro Ala Ser Arg His Arg Pro Pro Leu Gln Asp Arg
        115                 120                 125
Arg Leu His Val Pro Gly Gly His Ala Ser His Leu Leu Gln Pro Arg
    130                 135                 140
Ala Gln His Leu Pro Val Pro Arg Ser Ala His Gln Pro His Arg Pro
145                 150                 155                 160
Ser Asn Leu Leu Pro Gln Arg Gln Pro Ala Gly Ile Ser Pro Arg Pro
                165                 170                 175
His Pro Pro Arg Ser Gln Asn Arg Leu Arg His Arg Arg Arg Leu Arg
            180                 185                 190
Leu Val Arg Phe Pro Ala Ala Arg Gly Ser Gln Pro Gly Leu Ala Leu
        195                 200                 205
Arg Pro Arg Arg Arg Ser Arg Pro Ala Tyr His Arg Ala Leu Gln Arg
    210                 215                 220
Ser Arg Leu Leu Arg Ala Gln Arg Gly
225                 230
```

<210> 39358
<211> 511
<212> PRT
<213> A.fumigatus

```
<400> 39358
Glu Arg Lys Glu Ala His Pro Ser Ile Met Thr Ile Leu His Ile Arg
1               5                   10                  15
Ala Ala Thr Pro Tyr Glu Pro Gly Asp Asn Ala Thr Asp Val Ile Val
            20                  25                  30
Asn Glu Val His Leu Asn Arg Thr Thr Leu Asp Leu Tyr Asn Tyr Thr
        35                  40                  45
Leu Tyr Ser Asn Gly Thr Leu Ser Asn Gly Thr Asp Cys Tyr Leu Ala
    50                  55                  60
Phe Gln Glu Phe Gln Pro Arg Met Asp Glu Asn Gly Thr Phe Val Asn
65                  70                  75                  80
Gly Ile Ser Cys Tyr Ala Pro Ile His Gly Ile Gly Arg His Ala Ser
                85                  90                  95
Ile Gly Met Ala Phe Thr Ala Phe Phe Ala Val Ser Met Phe Leu Thr
            100                 105                 110
Met Phe Asn Leu Gln Lys His Gly Arg Lys Tyr Leu Pro Gly Arg Thr
        115                 120                 125
Met Gly Arg Arg Leu Lys Trp Leu Trp Leu Leu Phe Val Ala Ala Cys
    130                 135                 140
Gly Leu Val Ser Cys Ile Met Thr Val Asp Val Asp Arg Ser His Ile
145                 150                 155                 160
Gln Gly Pro Ser Leu Ile Leu Gln Ser Val Phe Tyr Thr Leu Met Thr
                165                 170                 175
Pro Gly Leu Met Ala Ala Val Trp Glu Ala Val Arg His Trp Tyr Thr
            180                 185                 190
Ser Leu Ser Ala His Lys Ile Leu Lys Asn Ser Val Leu Thr Ile Asn
```

```
        195                 200                 205
Arg Ala Ser Trp Gln Glu Arg Gln Ile Leu Asp Arg Asp Pro Tyr Ala
    210                 215                 220
Phe Thr Lys Arg Ser Ser Arg Arg Arg Gln Glu Ser Leu Leu Pro Ile
225                 230                 235                 240
Leu Phe Tyr Val Phe Ala Ile Ala Ser Phe Phe Leu Thr Ile Arg Arg
                245                 250                 255
Ser Trp Thr Gly Ile Glu Leu Gln Arg Ser Pro Glu Leu Thr Ala Leu
            260                 265                 270
Arg Ala Gln Pro Leu Ala Thr Asp Leu Arg Phe Lys Ile Ala Gly Phe
        275                 280                 285
Met Ser Leu Ala Gly Met Leu Val Ile Cys Tyr Ser Leu Glu His Ser
    290                 295                 300
Ile Tyr Arg Tyr Arg Ala Ala Pro Thr Ser Pro Ile Ala Gln Ala Thr
305                 310                 315                 320
Phe Tyr Leu Ser Ala Ser Pro Pro Glu Phe Leu Leu Ala Leu Ile Leu
                325                 330                 335
Leu Gly Leu Lys Thr Gly Tyr Ala Ile Ala Ala Ala Phe Asp Trp Ser
            340                 345                 350
Val Ser Pro Leu Arg Val Ala Val Ser Gln Gly Leu Leu Tyr Gly Leu
        355                 360                 365
Gly Val Ala Pro Ala Leu Leu Ile Ile Val Leu Phe Asn Ala Val Gly
    370                 375                 380
Phe Cys Glu Leu Asn Glu Asp Lys Ala Leu Ile Val Gln Arg Gly Glu
385                 390                 395                 400
Leu Asp Ser Ala Leu Ala Thr Asp Ala Asp Leu Leu Gly Arg Lys Arg
                405                 410                 415
Trp Trp Glu Ser Arg Trp Leu His Gly Gly Asp Arg Asn Arg Asn Arg
            420                 425                 430
Asp Arg Asp Arg Asp Arg Ser Ser Ser Arg Glu Gln Leu Asp Arg Tyr
        435                 440                 445
Val Glu Met Gly Ile Leu Ala Pro His Gly Lys Gly Asp Gly Glu Asp
    450                 455                 460
Lys Asp Gly Ser Ala Gly Ala Ala Gly Ala Glu Ala Ala Pro Arg Val
465                 470                 475                 480
Thr Thr Arg Thr Ala Ser Asp Ala Ser Ser Ser Ser Glu Ser Gly Phe
                485                 490                 495
Val Thr Val Thr Val Ala Ser Pro Gly Gln Gln Arg Ala Asp Arg
            500                 505                 510
```

<210> 39359
<211> 70
<212> PRT
<213> A.fumigatus

<400> 39359

```
Arg Gly Lys Ser Leu Pro Ile Thr Tyr Ser Asn Gly Pro Tyr Glu Val
1               5                   10                  15
Leu Leu Gly Tyr Asp Asn Pro Ile Ala Asn Leu Cys Tyr Lys Val His
            20                  25                  30
Phe Ala Arg Ser Lys Met Ala Arg Lys Phe Thr Ile Lys Ile Ala Gln
        35                  40                  45
Leu Ile Tyr Lys Cys Arg Gly Gly Val Asp Leu Ala Gln Ser His Arg
    50                  55                  60
His Cys His Arg Pro Cys
65                  70
```

<210> 39360
<211> 78
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (19),(26),(51)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39360
Ser His Ala Pro His His Leu Phe Ala Gly Leu Ala Ser Pro Arg Ser
1 5 10 15
Ser Gly Xaa Ala Phe Gly Gln Phe Val Xaa Leu Met Gly Phe Lys Leu
20 25 30
Lys Ile Ala Ser Gln Lys Pro Leu Gly Ser Asp Lys Arg Thr Ala Leu
35 40 45
Phe Cys Xaa Lys Ser Gln Lys Ala Ser Arg Ile Ala Gln Cys Arg Arg
50 55 60
Ala Gly Ala Ser Ser Phe His Ser Gly Ala Cys Val Pro Trp
65 70 75

<210> 39361
<211> 201
<212> PRT
<213> A.fumigatus

<400> 39361
Ser Ser Ala Thr Ala Ser Ser Thr Ala Ser Thr Gly Thr Ala Gln Arg
1 5 10 15
Pro Pro Ala Pro Ser Pro Lys Gln Pro Ser Thr Ser Ala Pro Ala Arg
20 25 30
Arg Asn Phe Ser Ser Pro Ser Ser Ser Ser Val Ser Lys Pro Ala Thr
35 40 45
Pro Ser Pro Pro Pro Ser Thr Gly Pro Phe Pro Arg Cys Ala Trp Gln
50 55 60
Ser Ala Arg Ala Cys Ser Thr Ala Ser Ala Ser Leu Pro Pro Cys Leu
65 70 75 80
Ser Ser Cys Ser Ser Thr Gln Ser Ala Ser Ala Ser Ser Thr Arg Ile
85 90 95
Arg Pro Ser Ser Ser Ser Ala Gly Ser Ser Thr Pro Arg Ser Pro Pro
100 105 110
Met Pro Ile Ser Ser Val Ala Ser Ala Gly Gly Asn Arg Ala Gly Cys
115 120 125
Met Ala Ala Ile Ala Thr Ala Thr Ala Thr Val Thr Ala Ile Ala Pro
130 135 140
Arg Leu Val Ser Ser Trp Ile Ala Thr Ser Arg Trp Gly Phe Ser Leu
145 150 155 160
Arg Met Gly Arg Ala Thr Ala Arg Thr Lys Met Ala Leu Arg Gly Arg
165 170 175
Gln Glu Pro Lys Gln Arg Arg Glu Ser Arg Arg Gly Arg Arg Val Thr
180 185 190
Pro Leu Ala Arg Arg Lys Val Val Ser
195 200

<210> 39362
<211> 75
<212> PRT
<213> A.fumigatus

<400> 39362
Ile Trp Leu Arg Ser Thr Ser Thr Val Met Met Gln Leu Thr Ser Pro
1 5 10 15
Gln Ala Ala Thr Asn Asn Ser His Ser His Leu Ser Arg Arg Pro Ile
20 25 30
Val Arg Pro Gly Arg Tyr Leu Arg Pro Cys Phe Cys Arg Leu Asn Met
35 40 45
Val Arg Asn Met Glu Thr Ala Lys Asn Ala Val Lys Ala Ile Pro Ile
50 55 60
Glu Ala Cys Arg Pro Met Pro Trp Met Gly Ala
65 70 75

<210> 39363
<211> 73
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (28)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39363
Gly Pro Leu Leu Tyr Val Ile Gly Arg Asp Phe Pro Arg Tyr Gly Lys
1 5 10 15
Ser Arg Ala Cys Leu Asn Gly Val Phe Arg Ser Xaa Asp Thr Thr Ile
20 25 30
Ser Ser Ser Tyr Lys Leu Gly Thr His Trp Glu Ser Val Thr Leu Cys
35 40 45
Thr Ser Arg Glu Gly Asn Met Glu His Phe Ile Arg Tyr Arg Phe Phe
50 55 60
Val Ser Gly Thr Leu Gly Thr Asp Ile
65 70

<210> 39364
<211> 186
<212> PRT
<213> A.fumigatus

<400> 39364
Ile Ile Gly Ala Pro Ala Phe Phe Pro Thr Val Trp Gly Trp Ile Lys
1 5 10 15
Arg Trp Phe Asp Pro Val Thr Thr Ser Lys Ile Phe Ile Leu Ser Ala
20 25 30
Ala Glu Val Lys Pro Thr Leu Thr Ser Phe Met Asp Pro Ser Ser Ile
35 40 45
Pro Lys Gln Tyr Gly Gly Glu Leu Asp Trp Gln Trp Gly Asp Met Pro
50 55 60
Asn Leu Asp Glu Pro Ala Arg Glu Leu Val Gly Ala Leu Glu Ile Pro
65 70 75 80
Pro Ala Glu Gly Glu Thr Lys Pro Ser Phe Thr Lys Gly Pro Val Leu

```
                85                  90                  95
Phe Lys Gly Asp His Val Glu Ile Leu Gly Lys Val Asn Gly Lys Ser
            100                 105                 110
Arg Gln Arg Thr Val Pro Val Pro Met Pro Ala Lys Gln Glu Glu Asn
        115                 120                 125
Thr Asn Thr Pro Asp Val Glu Leu Glu Ala Lys Met Ala Ala Thr Ser
    130                 135                 140
Leu Ala Pro Ala Ala Ser Ser Thr Glu Gln Ser Glu Val Gln Ser Glu
145                 150                 155                 160
Asn Glu Asn Glu Lys Val Ala Leu Asp Asn Val Ala Ala Glu Lys Val
                165                 170                 175
Ala Asn Pro Thr Ala Gln Thr Val Ser Ala
            180                 185
```

<210> 39365
<211> 421
<212> PRT
<213> A.fumigatus

```
<400> 39365
Arg Lys Glu Val His Glu Ile Lys Val Lys Gly Ser Asp Val Arg His
1               5                   10                  15
Pro Ala Met His Cys Asp Leu Phe Ser Met Asp Ala Asp Gly Gln Gln
            20                  25                  30
Val Ile Pro Ser Val Gln Tyr Ala Asp Ile Val Ser Gly Arg Val Ser
        35                  40                  45
Asp Arg Ala Thr Gly Glu Ile Leu His Arg Gly Ser Val Val Ile Arg
    50                  55                  60
Asn Val Ile Pro Arg Lys Glu Ala Arg Gly Trp Lys Asn Arg Val Glu
65                  70                  75                  80
Glu Tyr Val Ala Ala Asn Lys Glu Arg Val Lys Ala Phe Pro Pro Asp
                85                  90                  95
Ser Pro Ala Val Phe Glu Leu Tyr Trp Thr Pro Ser Gln Ala Glu Ala
            100                 105                 110
Arg Ala His Pro Asn Met Leu Glu Thr Gln Arg Phe Leu Gln Arg Leu
        115                 120                 125
Trp His Ser Ser Asp Pro Ala Thr Arg Ile Ser Thr Arg Tyr Pro Leu
    130                 135                 140
Thr Tyr Ala Asp Arg Leu Arg Ile Arg Gln Pro Gly Asp Gly Lys Phe
145                 150                 155                 160
Ser Leu Gly Pro His Val Asp Gly Gly Ser Leu Glu Arg Trp Glu Asp
                165                 170                 175
Pro Glu Tyr Ser Arg Val Tyr Thr Lys Ile Leu Glu Gly Lys Trp Glu
            180                 185                 190
Glu Tyr Asp Pro Trp Asp Ala Lys His Arg Val Ser Ala Lys Met Asp
        195                 200                 205
Leu Tyr Asn Gly Ala Gly Ala Cys Ser Met Leu Arg Phe Phe Gln Gly
    210                 215                 220
Trp Leu Ser Met Ser Asn Thr Gly Pro Gly Glu Gly Ser Leu His Val
225                 230                 235                 240
Cys Pro Met Leu Ile Gln Ser Thr Ala Tyr Thr Ile Leu Arg Pro Phe
                245                 250                 255
Phe Asp Ala Lys Thr Leu Gln Pro Asn Leu Asp Ala Thr Phe Pro Gly
            260                 265                 270
Ser Val Pro Gly Ala Cys Gln Glu Tyr Asn Pro Val Thr His Pro His
        275                 280                 285
```

```
Leu Glu Leu Asp Thr Thr Met Val Ser Val Pro Glu Val Glu Pro Gly
    290                 295                 300
Asp Tyr Val Ala Trp His Cys Asp Ser Leu His Ser Val Asp Lys Glu
305                 310                 315                 320
His Lys Gly Asn Gly Asp Ser Ser Val Leu Tyr Ile Pro Ala Thr Pro
                325                 330                 335
Met Cys Glu Met Asn Val Asp Tyr Leu Leu Lys Gln Arg Asn Ala Ala
            340                 345                 350
Leu Ala Tyr Ser Pro Pro Trp Asp Phe Pro Gly Ala Gly Gly Pro Gly
        355                 360                 365
Glu Ala Gly Phe Lys Gly Ala Leu Asp Trp Ser Ser Val Asn Ser Asp
    370                 375                 380
Gly Leu Arg Ala Met Gly Met Gly Ala Lys Pro Trp Glu Val Thr Gly
385                 390                 395                 400
Asp Met Thr Glu Gly Glu Lys Glu Val Val Glu Ala Ala Asn Lys Ala
                405                 410                 415
Cys Phe Gly Gln Ala
            420
```

<210> 39366
<211> 193
<212> PRT
<213> A.fumigatus

<400> 39366

```
Pro Phe Gly Ala Glu Val Met Lys Met Trp Leu Arg Val Ala Leu Leu
1                   5                   10                  15
Leu Leu Thr Ser Cys Val Pro Ser Thr Val Ala Ile Tyr Pro Asp Glu
            20                  25                  30
Val Asn His Ile Asp Phe His His Ala Leu Leu Gly Thr Pro Ser Ser
        35                  40                  45
His Ser Thr Phe Phe Leu Lys Pro Ser Ser Ser Ser Asn Ala Ser Leu
    50                  55                  60
Leu Tyr Thr Leu Ser Gln Lys Leu Leu Leu Gly Ala Val Asn Pro Arg
65                  70                  75                  80
Asp Gly Ser Leu Val Trp Arg Gln Asn Val Ser Arg Ser Leu Leu Ser
                85                  90                  95
Lys Asp Asp Gly Gln Val Gln Ser Phe Leu Arg Ala Ser Asp Gly Ser
            100                 105                 110
Asn Ala Met Val Ser Ala Val Gly Asp Tyr Ile Ser Ser Trp Ser Ala
        115                 120                 125
Leu Asp Gly Lys Leu Ile Trp Glu Asn Trp Phe Ala Gly Glu Pro Val
    130                 135                 140
Ile Asp Leu Glu Leu Leu Glu Leu Glu Asp Ala Gly Ala Thr Ser Ser
145                 150                 155                 160
Ala Arg Asp Ala Ile Ala Leu Tyr Gly His Lys Ala Gly Val Leu Arg
                165                 170                 175
Arg Leu Asp Ser Glu Ser Gly Asp Val Lys Trp Glu Phe Lys Asp Asp
            180                 185                 190
Arg
```

<210> 39367
<211> 819
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (27)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39367

```
Cys Leu Ser Leu Ala Gln Phe Ser Gly Asp Ile Pro Phe His Ile Ser
1               5                  10                  15
Ser Arg Ala Thr Glu Val Leu Tyr Ile Ser Xaa Gln Ser Gly Leu Leu
            20                  25                  30
Arg Gly Tyr Arg Ile Lys Ser Ile Ser Val Asp Pro Leu Thr Gly Arg
        35                  40                  45
Gln Thr Arg Gln His Ile Leu Asn Thr Glu Ser Asp Val Phe Gly Pro
    50                  55                  60
Glu Ser Ile Leu Phe Val Gly Ala Asn Thr Ala Ser Pro Val Ile Ile
65                  70                  75                  80
Trp Thr Asp Lys Ala Gln Lys Ala Leu Lys Ile Asn Gln Ile Gly Leu
                85                  90                  95
Lys Gln Val Asn Thr Leu His Ile Asp Asn Thr Ser Gly Glu Glu Ile
            100                 105                 110
Arg Ser Ile Glu Val His Thr Pro Lys Lys Leu Asn Ser Leu Pro His
        115                 120                 125
Phe Leu Val His Tyr Glu Thr Asp Ser Ser Ser Trp Ala Glu Val Tyr
    130                 135                 140
His Ile Asp Leu Thr Ser Ala Thr Val Ser Lys Ala Tyr Ser Leu Pro
145                 150                 155                 160
Arg Val Gln Glu Arg Ser Ala Phe Ala Thr Ser Asn Ile Asp Ala Asn
                165                 170                 175
Val Tyr Phe Thr Arg Ile Thr Gln Ser Glu Ala Val Ile Val Ser Ser
            180                 185                 190
Ala Ser His Gly Val Leu Gly Arg Trp Pro Leu Gln Ala Pro Thr Thr
        195                 200                 205
Glu His Ala Gln His Ala Val Ser Glu Val Val Ala Lys Gly Asp Ala
    210                 215                 220
Val Ala Val Arg Ser Ala Thr Val Leu Ser Ser Gly Asp Trp Gln Leu
225                 230                 235                 240
Ile Arg Asn Gly Gln Thr Glu Trp Thr Arg Tyr Glu Ala Leu Asn Gly
                245                 250                 255
Ala Val Ala Ala Ser Trp Ala Glu Glu Glu Tyr Gln Glu Asp Leu Ala
            260                 265                 270
His Glu Leu Glu Val Glu Gly His Glu Ser Leu Tyr Lys Ala Tyr Ile
        275                 280                 285
His Arg Val Lys Arg His Ala Arg Asp Leu Gln His Leu Pro Glu Trp
    290                 295                 300
Leu Lys Glu Leu Pro Lys Arg Ile Leu Thr Ser Ile Leu Ser Asp Glu
305                 310                 315                 320
Ile Ser Ser Leu Asp Gly Phe Gly Leu Ser Lys Thr Val Val Val Ala
                325                 330                 335
Thr Glu Asn Gly Arg Val Tyr Gly Ile Asp Thr Gly Asn His Gly Val
            340                 345                 350
Val Ser Trp Ser Val Lys Ala Ala Glu Ser Asp Ser Trp Asn Val Lys
        355                 360                 365
Ala Ile Leu Thr Gln Pro Gly Tyr Ala Thr Val Tyr Val Asp Asp Gly
    370                 375                 380
Ser Ser Val Ser Leu Asn Thr Thr Ser Gly Ala Val Ile Lys Arg Thr
```

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385                 390                 395                 400
Pro Ala Ser Gly Lys Ile Ala Ser Ile Ala Val Ile Asn Gly Pro Ser
                405                 410                 415
Asn Pro Ile Thr Ile Gly Val Lys Glu Asp Gly Val Pro Val Glu Pro
            420                 425                 430
Leu Glu Lys Pro Gly Phe Phe Val Thr Leu Ser Ala Asp Gly Arg Val
        435                 440                 445
Leu Gly Trp Ser Ala Ala Asp Asn Lys Thr Pro Val Trp Glu Phe Leu
    450                 455                 460
Pro Ala Gln Gly Gln Lys Ile Ile Arg Ala Ile Ala Arg Pro Ala His
465                 470                 475                 480
Asp Pro Val Ala Ser Ile Gly Lys Val Leu Gly Asp Arg Ser Val Leu
                485                 490                 495
Tyr Lys Tyr Leu Asn Pro Asn Leu Ala Leu Ile Thr Ala Ala Gly Glu
            500                 505                 510
Asp Asn Thr Ala Thr Phe Tyr Leu Leu Asp Ala Ile Ser Gly Arg Ile
        515                 520                 525
Leu His Ser Ser Thr Gln Lys Gly Val Asp Thr Ser Gln Pro Ile Ala
    530                 535                 540
Ser Thr Ile Ser Glu Lys Trp Phe Val Tyr Ser Phe Tyr Gly Asp Pro
545                 550                 555                 560
Leu Thr Pro Ser Asp Ala Lys Gly Tyr Gln Leu Val Val Ser Glu Leu
                565                 570                 575
Tyr Glu Ser Pro Leu Pro Asn Asp Arg Gly Pro Leu Gly Ser Ala Ser
            580                 585                 590
Asn Tyr Ser Ser Ile His Gly Ser Asn Ile Leu Pro Leu Pro His Val
        595                 600                 605
Ile Ser Gln Ala Phe Ile Ile Pro Glu Pro Ile Ser His Met Ala Val
    610                 615                 620
Thr Gln Thr Arg Gln Gly Ile Thr Thr Arg Gln Leu Leu Cys Thr Leu
625                 630                 635                 640
Pro Ala Ser Asn Ser Ile Val Gly Ile Pro Arg Pro Val Leu Asp Pro
                645                 650                 655
Arg Arg Pro Val Glu Arg Asp Pro Thr Ser Thr Glu Ala Glu Glu Gly
            660                 665                 670
Leu Phe Lys Tyr Asn Pro Val Leu Glu Phe Asp Gly Lys Trp Tyr Leu
        675                 680                 685
Ser His Asn Arg Asp Val Ala Gly Ile Lys Ala Val Leu Ser Ser Pro
    690                 695                 700
Thr Leu Leu Glu Ser Thr Ser Leu Ile Phe Ala Phe Gly Gly Asp Val
705                 710                 715                 720
Phe Gly Thr Arg Ala Thr Pro Ser Gln Ala Phe Asp Val Leu Gly Lys
                725                 730                 735
Gly Phe Ser Lys Leu Gln Leu Ile Met Thr Val Leu Ala Leu Ser Val
            740                 745                 750
Gly Val Ile Ile Leu Ala Pro Met Val Arg Phe Pro Asp Leu Pro Pro
        755                 760                 765
Thr Leu Thr Pro Ala Cys Thr Pro His Asp Leu Gln Asn Thr Asp Gln
    770                 775                 780
Ser Thr Gly Ala Glu Glu Ala Asp Gln Ser Ala Val Glu Gly Ser Leu
785                 790                 795                 800
Glu Lys Asp Arg Glu Thr Gly Ser Ile Tyr Thr Thr Ser Leu His Asp
                805                 810                 815
Cys Val Tyr
```

<210> 39368
<211> 159
<212> PRT
<213> A.fumigatus

<400> 39368
Val Arg Ser Leu Ile Arg Thr Ser Leu Thr Tyr Thr Met Phe Arg Ser
1 5 10 15
Thr Ile Phe Arg Gln Ala Ala Lys Ala Phe Ser Gln Arg Ser His Pro
20 25 30
Ala Pro Phe Ala Ala Pro Leu Arg Cys Ser Ala Ser Asn Thr Phe Phe
35 40 45
Arg Pro Leu Ser Tyr Thr Ile Pro Arg Ser Thr Gly Gly Lys Lys Asp
50 55 60
Pro Glu Glu Ser Glu Val Glu Gly Arg Phe Ala Arg Thr Asp Glu Ser
65 70 75 80
Val Val Ile Glu Tyr Pro Asn Asp Ala Asp Met Pro Arg Thr Pro Ile
85 90 95
Val Gln Gly Arg Gly Gly Met His Phe Lys Arg Thr Leu Ala Gln Phe
100 105 110
Ser Leu Lys Asn Lys Val Ser Leu Val Thr Gly Gly Ala Arg Gly Leu
115 120 125
Gly Leu Val Met Ser Gln Ala Leu Val Ala Ser Gly Ser Asp Leu Ala
130 135 140
Ile Val Asp Leu Asn Arg Met Phe Gln Ala Ile Asn Cys Asn Ser
145 150 155

<210> 39369
<211> 201
<212> PRT
<213> A.fumigatus

<400> 39369
Ile Pro Glu Met Thr Ala Asn Ala Ser Gln Glu Arg Lys Leu Lys Thr
1 5 10 15
Arg Leu Arg Ser Ser Ser Asn Ser Leu Arg Arg Lys Ile Arg Ala Trp
20 25 30
Asn Ser Lys Ser Ile Gly Gly Phe Gln Ala Phe Leu Ser Val Ala Asp
35 40 45
Ala Asn Val Leu Phe Thr Phe Leu Phe Ser Arg Met Pro Asn Val Thr
50 55 60
Ala His Tyr Ala Asp Val Ala Asn Pro Asp Ser Val Asn Thr Ala Ile
65 70 75 80
Ala Glu Val Ile Ser Lys His Gly Arg Ile Asp His Leu Val Thr Ser
85 90 95
Ala Gly Phe Thr Glu Asn Phe Asp Ala Ile Ser Tyr Pro Tyr Asp Arg
100 105 110
Met Gln Lys Leu Trp Gly Val Asn Val Asp Gly Thr Tyr Leu Phe Ala
115 120 125
Val Gly Val Ala Lys His Leu Met Glu Arg Lys Ala Pro Gly Ser Met
130 135 140
Val Leu Ile Gly Ser Met Ser Gly Ala Ile Val Asn Val Pro Gln Pro
145 150 155 160
Gln Ala Pro Tyr Asn Ala Ala Lys Ala Ala Val Arg His Leu Ala Ala
165 170 175
Ser Leu Ala Val Glu Trp Ala Pro His Gly Ile Arg Val Asn Cys Ile

```
            180                 185                 190
Ser Pro Gly Tyr Met Leu Thr Ala Leu
        195                 200

<210> 39370
<211> 78
<212> PRT
<213> A.fumigatus

<400> 39370
Thr Ala Leu Phe His Leu Val Val Phe Leu Ser Asp Arg Leu Thr Ser
1               5                   10                  15
Ile Ser Arg Thr Arg Lys Ile Leu Asp Glu Arg Pro Asp Leu Arg Asp
            20                  25                  30
Lys Trp Thr Ser Leu Ile Pro Val Gly Lys Met Gly Thr Pro Glu Asp
        35                  40                  45
Leu Met Gly Ala Val Thr Phe Leu Leu Ser Asp Ala Ser Lys Tyr Ile
    50                  55                  60
Thr Gly Ala Asp Leu Arg Val Asp Gly Gly Tyr Thr Leu Thr
65                  70                  75

<210> 39371
<211> 89
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (73)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39371
Ala Leu Ala Ser Gly Glu Pro Met Arg Pro Leu Lys Phe Arg Leu Leu
1               5                   10                  15
Ala Glu Ile Pro Thr Ser Pro Ser Leu Arg Arg Pro Ala Pro Arg Pro
            20                  25                  30
Ile Gln Thr Ala His Pro Ala Gly Arg Gly Ile Ala Pro Ala Ser Ile
        35                  40                  45
Arg Ala Cys Gln Ser Pro Ala Phe Ser Ala Ile Phe Cys Ser Ala Phe
    50                  55                  60
Gly Ser Arg Arg Asn Val Glu Leu Xaa Ala Val Arg Asp Pro His Arg
65                  70                  75                  80
Pro Thr Pro Ser Gly Gln Arg Arg Pro
                85

<210> 39372
<211> 95
<212> PRT
<213> A.fumigatus

<400> 39372
Ser Ser Thr Leu Arg Arg Leu Pro Lys Ala Glu Gln Lys Ile Ala Glu
1               5                   10                  15
Lys Ala Gly Asp Trp Gln Ala Leu Met Asp Ala Gly Ala Ile Pro Leu
            20                  25                  30
Pro Ala Gly Cys Ala Val Cys Ile Gly Leu Gly Ala Gly Leu Leu Lys
```

```
        35                  40                  45
Glu Gly Glu Val Gly Ile Ser Ala Ser Asn Arg Asn Phe Lys Gly Arg
    50                  55                  60
Met Gly Ser Pro Asp Ala Lys Ala Tyr Leu Ala Ser Pro Glu Val Val
65                  70                  75                  80
Ala Ala Ser Ala Arg Met Pro Leu Ser Ile Gly Val Pro Tyr Leu
                85                  90                  95
```

<210> 39373
<211> 203
<212> PRT
<213> A.fumigatus

<400> 39373

```
Glu Ser Ala Asn Ser Trp Leu Val Asn Gly Val Ile Ser Gly Pro Gly
1               5                  10                  15
Ile Tyr Lys Arg Pro Glu Asp Trp Thr Gly Val Ser Ile Gly Glu Gly
            20                  25                  30
Glu Val Val Glu Ser Gly Ser Arg Ile Asp Thr Thr Leu Glu Ala Met
        35                  40                  45
Glu Lys Phe Ile Gly Gln Leu Asp Ser Met Ile Asp Ser Ser Ser Lys
    50                  55                  60
Ala Val Met Pro Glu Glu Ser Thr Gly Ser Gly Ala Thr Glu Val Asp
65                  70                  75                  80
Ile Val Pro Gly Phe Pro Glu Lys Ile Glu Gly Glu Ile Leu Phe Leu
                85                  90                  95
Asp Ala Asp Asn Ile Ser Thr Asp Gly Ile Tyr Pro Gly Lys Pro Ser
            100                 105                 110
Gln Thr Gly Asn Thr Leu Leu Ala Leu Thr Asn Val Thr Gly Lys Tyr
        115                 120                 125
Thr Tyr Gln Asp Asp Val Thr Lys Asp Lys Met Ala Gln Val Cys Met
    130                 135                 140
Glu Asn Tyr Asp Pro Ala Phe Ser Gly Ile Ala Arg Ala Gly Gly Leu
145                 150                 155                 160
Ser Pro Ser Leu Phe Ser Ser Phe Leu Ser Ile Arg Lys Ser Leu Thr
                165                 170                 175
His Ile Asn Arg His Leu Arg Leu Arg Leu Gln Leu Arg Leu Trp Leu
            180                 185                 190
Val Pro Arg Ala Ser Arg His Leu His Pro Arg
        195                 200
```

<210> 39374
<211> 455
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (432)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39374

```
Leu Leu Lys Lys Arg Thr Gly Ser Leu Leu Leu Arg Cys Arg Ala Ser
1               5                  10                  15
Arg Val Pro Val Ile Gly Arg Pro Leu Ile Ser Leu Ser Thr Ser Ser
            20                  25                  30
```

```
Thr Ser Leu Ser Leu Ser Arg Pro Arg Ser Phe Ala Thr Thr Ser Leu
        35                  40                  45
Arg Arg Tyr Ala Glu Ala Ser Ser Ser Thr Thr Gln Thr Ser Pro Ser
    50                  55                  60
Ser Ser Ser Trp Pro Ala Pro Asp Ala Ala Pro Arg Val Pro Gln Thr
65                  70                  75                  80
Leu Thr Glu Lys Ile Val Gln Ala Tyr Ser Leu Gly Leu Ala Glu Gly
                85                  90                  95
Gln Tyr Val Lys Ala Gly Asp Tyr Val Met Leu Ser Pro His Arg Cys
            100                 105                 110
Met Thr His Asp Asn Ser Trp Pro Thr Ala Leu Lys Phe Met Ala Ile
        115                 120                 125
Gly Ala Ser Lys Val His Asn Pro Asp Gln Ile Val Met Thr Leu Asp
    130                 135                 140
His Asp Val Gln Asn Lys Ser Glu Lys Asn Leu Lys Lys Tyr Glu Ser
145                 150                 155                 160
Ile Glu Lys Phe Ala Asn Gln His Gly Ile Asp Phe Tyr Pro Ala Gly
                165                 170                 175
His Gly Val Gly His Gln Ile Met Ile Glu Glu Gly Tyr Ala Phe Pro
            180                 185                 190
Gly Thr Val Thr Val Ala Ser Asp Ser His Ser Asn Met Tyr Gly Gly
        195                 200                 205
Val Gly Cys Leu Gly Thr Pro Met Val Arg Thr Asp Ala Ala Thr Ile
    210                 215                 220
Trp Ala Thr Gly Arg Thr Trp Trp Lys Val Pro Pro Ile Ala Lys Val
225                 230                 235                 240
Gln Phe Thr Gly Thr Leu Pro Glu Gly Val Thr Gly Lys Asp Val Ile
                245                 250                 255
Val Ala Leu Ser Gly Leu Phe Asn Lys Asp Glu Val Leu Asn Tyr Ala
            260                 265                 270
Ile Glu Phe Thr Gly Ser Glu Glu Thr Met Lys Ser Leu Ser Val Asp
        275                 280                 285
Thr Arg Leu Thr Ile Ala Asn Met Thr Thr Glu Trp Gly Ala Leu Thr
    290                 295                 300
Gly Leu Phe Pro Ile Asp Ser Thr Leu Glu Gln Trp Leu Arg His Lys
305                 310                 315                 320
Ala Ala Thr Ala Ser Arg Thr Glu Thr Ala Arg Arg Phe Ala Glu Glu
                325                 330                 335
Arg Ile Asn Glu Leu Phe Ala Asn Pro Thr Val Ala Asp Arg Gly Ala
            340                 345                 350
Arg Tyr Ala Lys Tyr Leu Tyr Leu Asp Leu Ser Thr Leu Ser Pro Tyr
        355                 360                 365
Val Ser Gly Pro Asn Ser Val Lys Val Ala Thr Pro Leu Asp Glu Leu
    370                 375                 380
Glu Lys His Lys Leu Lys Ile Asp Lys Ala Tyr Leu Val Ser Cys Thr
385                 390                 395                 400
Asn Ser Arg Ala Ser Asp Ile Ala Ala Ala Ala Lys Val Phe Lys Asp
                405                 410                 415
Ala Val Ala Arg Arg Gly Trp Ala Cys Glu Gly Arg Gly Arg Arg Xaa
            420                 425                 430
Val Leu Arg Cys Gly Gly Phe Gln Arg Pro Asn Arg Arg Leu Gln Arg
        435                 440                 445
Arg Arg Val Thr Gly Lys Pro
    450                 455
```

<210> 39375

jc542 U.S. PTO
09/417507
10/14/99

<211> 130
<212> PRT
<213> A.fumigatus

<400> 39375

```
Thr Asp Ile Phe Val Ser Gly Phe Asn Phe Gly Cys Gly Ser Ser Arg
1               5                  10                  15
Glu Gln Ala Ala Thr Ser Ile Leu Ala Lys Gln Leu Pro Leu Val Val
            20                  25                  30
Ala Gly Ser Ile Gly Asn Thr Phe Ser Arg Asn Ala Val Asn Asn Ala
        35                  40                  45
Leu Pro Leu Leu Glu Met Pro Arg Leu Ile Glu Arg Leu Arg Glu Ala
    50                  55                  60
Phe Gly Ser Glu Lys Gln Pro Thr Arg Arg Thr Gly Trp Thr Phe Thr
65                  70                  75                  80
Trp Asn Val Arg Thr Ser Gln Val Thr Val Gln Glu Gly Pro Gly Gly
                85                  90                  95
Glu Thr Trp Ser Gln Ser Val Pro Ala Phe Pro Pro Asn Leu Gln Asp
            100                 105                 110
Ile Ile Ala Gln Gly Gly Leu Glu Lys Trp Val Lys Lys Glu Ile Ser
        115                 120                 125
Lys Ala
    130
```

<210> 39376
<211> 191
<212> PRT
<213> A.fumigatus

<400> 39376

```
Thr Phe Ser Asp Arg Gln Tyr Thr Ala Cys Ala Asn Glu Arg His Arg
1               5                  10                  15
Gln Ile His Ile Pro Gly Arg Arg His Gln Gly Gln Asp Gly Thr Gly
            20                  25                  30
Leu His Gly Glu Leu Arg Pro Cys Leu Gln Arg His Cys Pro Arg Arg
        35                  40                  45
Arg Phe Val Thr Phe Pro Phe Leu Val Ile Ser Phe Asp Pro Gln Glu
    50                  55                  60
Ser Asn Thr His Lys Gln Thr Ser Ser Ser Pro Ala Ser Thr Ser Ala
65                  70                  75                  80
Val Ala Arg Pro Ala Ser Lys Pro Pro Pro Pro Ser Ser Leu Ser Ser
                85                  90                  95
Ser Leu Ser Ser Ser Pro Ala Ala Ser Ala Thr Pro Ser Ala Ala Met
            100                 105                 110
Pro Ser Thr Thr Pro Ser Leu Ser Ser Arg Cys Leu Ala Ser Ser Ser
        115                 120                 125
Ala Cys Ala Lys Pro Leu Ala Ala Lys Ser Asn Gln Leu Val Ala Arg
    130                 135                 140
Ala Gly Pro Ser Pro Gly Thr Cys Ala Leu Pro Arg Ser Leu Ser Arg
145                 150                 155                 160
Lys Ala Arg Ala Val Lys Pro Gly Ala Arg Ala Tyr Leu Leu Ser Leu
                165                 170                 175
Pro Thr Cys Lys Thr Leu Leu Pro Arg Val Asp Trp Arg Ser Gly
            180                 185                 190
```

<210> 39377

<211> 367
<212> PRT
<213> A.fumigatus

<400> 39377
Tyr Leu Phe Tyr Gln Ser Ala Phe His Pro Gln Leu Asp Gln Val Leu
1 5 10 15
Thr Asp Val Gln Ile Ala Ser Tyr Trp Leu Thr Thr Thr Val Ile Met
20 25 30
Asp Leu Val Gly Thr Pro Ser Asp Asn Asn Gly Asn Lys Ala Phe Pro
35 40 45
Phe Gly Lys Thr Ala Thr Pro Ile Ile Asn Thr Ile Val Lys Tyr Val
50 55 60
Tyr Leu Gly Phe Leu Leu Leu Gln Phe Ile Leu Ala Leu Gly Asn Arg
65 70 75 80
Pro Lys Gly Ser Lys Phe Ser Tyr Leu Ala Ser Phe Val Val Phe Gly
85 90 95
Ile Ile Gln Val Tyr Val Val Ile Asp Ala Leu Tyr Leu Val Val Arg
100 105 110
Ala Phe Ser Gly Ser Ala Pro Met Asp Phe Thr Thr Asp Gln Gly Val
115 120 125
Gly Glu Phe Leu Lys Ser Phe Phe Ser Ser Ser Gly Ala Gly Ile Ile
130 135 140
Ile Ile Ala Leu Ala Ala Thr Phe Gly Leu Tyr Phe Val Ala Ser Phe
145 150 155 160
Met Tyr Leu Asp Pro Trp His Met Phe Thr Ser Phe Pro Ala Tyr Met
165 170 175
Cys Val Gln Ser Ser Tyr Ile Asn Ile Leu Asn Val Tyr Ala Phe Ser
180 185 190
Asn Trp His Asp Val Ser Trp Gly Thr Lys Gly Ser Asp Lys Ala Asp
195 200 205
Ala Leu Pro Ser Ala Lys Thr Thr Lys Asp Glu Gly Lys Glu Val Val
210 215 220
Ile Glu Glu Ile Asp Lys Pro Gln Ala Asp Ile Asp Ser Gln Phe Glu
225 230 235 240
Ala Thr Val Lys Arg Ala Leu Thr Pro Tyr Val Pro Pro Val Glu Lys
245 250 255
Glu Glu Lys Thr Leu Glu Asp Ser Tyr Lys Ser Phe Arg Thr Arg Leu
260 265 270
Val Thr Phe Trp Ile Phe Ser Asn Ala Phe Leu Ala Val Cys Ile Thr
275 280 285
Ser Asp Gly Val Asp Lys Phe Gly Phe Thr Val Cys Arg Arg Arg Gln
290 295 300
Ser Leu Leu Val Asp Cys Glu Thr Asn Ile Leu Gln Asn Ser Ala Thr
305 310 315 320
Asp Arg Thr Gln Arg Phe Leu Gln Ala Leu Leu Trp Ser Asn Ala Val
325 330 335
Val Ala Leu Phe Arg Phe Ile Gly Ala Cys Trp Phe Leu Gly Lys Thr
340 345 350
Gly Leu Met Cys Cys Tyr Ala Arg Pro Leu Glu Gly Arg Ser Ser
355 360 365

<210> 39378
<211> 76
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (9),(19)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39378
Gly Phe Arg Gly Val Asn Asp Leu Xaa Asp Ala Arg Leu His Pro Ala
1 5 10 15
Gly Val Xaa Arg Pro Pro Gly Gly Leu Arg Arg Tyr Ala Thr Arg Lys
20 25 30
Val Lys Leu Val Gln Gly Ser Val Leu Ser Val Asp Tyr Pro Val Pro
35 40 45
Ser Ala Ile Gln Asn Ala Ile Gln Ala Lys Tyr Arg Asn Asp Leu Glu
50 55 60
Gly Gly Ser Glu Glu Phe Thr His Met Arg Cys Glu
65 70 75

<210> 39379
<211> 114
<212> PRT
<213> A.fumigatus

<400> 39379
Gln Ile Ala Trp Glu Leu Asp Leu Gln Glu Leu Thr Leu Gly Ser Thr
1 5 10 15
Met Lys Met Asn Phe Pro Asn Pro Asp Asp Ile Leu Asn Phe Thr Leu
20 25 30
Thr Ile Glu Pro Asp Glu Gly Met Tyr Lys Gly Gly Ala Phe His Phe
35 40 45
Asn Phe Ser Val Asn Gln Asn Phe Pro His Asp Pro Pro Lys Val Lys
50 55 60
Cys Thr Gln Lys Ile Tyr His Pro Asn Ile Asp Leu Glu Gly Asn Val
65 70 75 80
Cys Leu Asn Ile Leu Arg Glu Asp Trp Lys Pro Val Leu Asn Leu Asn
85 90 95
Ala Val Ile Val Gly Met Gln Val Gly Leu Arg Asp Gly Arg Cys Arg
100 105 110
Cys Val

<210> 39380
<211> 195
<212> PRT
<213> A.fumigatus

<400> 39380
Val Ser Ile Ile Leu Phe Arg Ala Arg Ser Arg Met Leu Phe Arg Pro
1 5 10 15
Ser Thr Glu Met Ile Ser Arg Val Glu Val Arg Asn Leu Arg Thr Cys
20 25 30
Asp Val Ser Asp Leu Arg Arg Cys Thr Trp Pro Phe Tyr Phe Val His
35 40 45
Ile Ala Asp Asn Pro Ser Tyr Lys Ser Gln Asp Thr Ala Ala Thr Cys
50 55 60
Asp Pro Asn Glu Phe Thr Leu His Asn Gly Tyr Asn Leu Arg Pro Ala

65 70 75 80
Met Tyr Asn Arg His Thr Glu Leu Leu Ile Ala Ile Thr Tyr Tyr Asn
85 90 95
Glu Asp Lys Thr Leu Thr Ser Arg Thr Leu His Gly Val Met Gln Asn
100 105 110
Ile Arg Asp Ile Val Asn Leu Lys Lys Ser Glu Phe Trp Asn Lys Gly
115 120 125
Gly Pro Ala Trp Gln Lys Ile Val Val Cys Leu Val Phe Asp Gly Ile
130 135 140
Asp Pro Cys Asp Lys Asp Thr Leu Asp Val Leu Ala Thr Ile Gly Val
145 150 155 160
Tyr Gln Asp Gly Val Met Lys Arg Asp Val Asp Gly Lys Glu Thr Val
165 170 175
Ala His Ile Val Cys Ala Leu Arg Pro Val Gly Ile Thr Gly Arg Thr
180 185 190
Asn Trp Ser
195

<210> 39381
<211> 302
<212> PRT
<213> A.fumigatus

<400> 39381
Phe Glu Tyr Thr Thr Gln Leu Ser Val Thr Pro Asn Gln Gln Leu Ile
1 5 10 15
Arg Pro Thr Asp Asp Gly Pro Ser Thr Leu Pro Pro Val Gln Met Met
20 25 30
Phe Cys Leu Lys Gln Lys Asn Ser Lys Lys Ile Asn Ser His Arg Trp
35 40 45
Leu Phe Asn Ala Phe Gly Arg Ile Leu Asn Pro Glu Val Cys Ile Leu
50 55 60
Leu Asp Ala Gly Thr Lys Pro Gly Pro Lys Ser Leu Leu Ser Leu Trp
65 70 75 80
Glu Ala Phe Tyr Asn Asp Lys Asp Leu Gly Gly Ala Cys Gly Glu Ile
85 90 95
His Ala Met Leu Gly Lys Gly Trp Lys Asn Leu Ile Asn Pro Leu Val
100 105 110
Ala Ala Gln Asn Phe Glu Tyr Lys Ile Ser Asn Ile Leu Asp Lys Pro
115 120 125
Leu Glu Ser Ser Phe Gly Tyr Val Ser Val Leu Pro Gly Ala Phe Ser
130 135 140
Ala Tyr Arg Phe Arg Ala Ile Met Gly Arg Pro Leu Glu Gln Tyr Phe
145 150 155 160
His Gly Asp His Thr Leu Ser Lys Gln Leu Gly Lys Lys Gly Ile Glu
165 170 175
Gly Met Asn Ile Phe Lys Lys Asn Met Phe Leu Ala Glu Asp Arg Ile
180 185 190
Leu Cys Phe Glu Leu Val Ala Lys Ala Gly Ser Lys Trp His Leu Thr
195 200 205
Tyr Val Lys Ala Ser Lys Ala Glu Thr Asp Val Pro Glu Gly Ala Pro
210 215 220
Glu Phe Ile Ser Gln Arg Arg Arg Trp Leu Asn Gly Ser Phe Ala Ala
225 230 235 240
Gly Ile Tyr Ser Leu Met His Phe Gly Arg Met Tyr Lys Ser Gly His
245 250 255

```
Asn Ile Val Arg Met Phe Phe Leu His Ile Gln Met Leu Tyr Asn Ile
            260                 265                 270
Phe Ser Thr Val Leu Thr Trp Phe Ser Leu Gly Lys Leu Ile Phe Ile
        275                 280                 285
Leu Ser Lys Arg Val Pro Pro Pro Thr Gly Pro Ser Ser Asp
    290                 295                 300
```

<210> 39382
<211> 71
<212> PRT
<213> A.fumigatus

<400> 39382

```
Arg Pro Ala Ile Met Val Asp Gln Glu Ser Asn Pro Ala Met Asp Glu
1               5                   10                  15
Leu Glu Gln Gly Ser Pro Met Ser Gly Val Glu Asn Gly Lys Arg Glu
            20                  25                  30
Gln Val Glu Asp Val Glu Glu Met Asp Val Lys Ser Lys Ala Leu Met
        35                  40                  45
His Leu Leu Asn Thr Ser Glu Val Cys Phe Pro Leu Ser Tyr Val Ile
    50                  55                  60
Leu Tyr Phe Ile Met Lys His
65                  70
```

<210> 39383
<211> 289
<212> PRT
<213> A.fumigatus

<400> 39383

```
Val Phe Val Ala Ile Met Ala Asp Lys Met Lys Lys Gln Gln Glu Glu
1               5                   10                  15
Ala Arg Leu Glu Ala Ala Lys Gln Gln Gln Gln Arg Gln Gln Lys Leu
            20                  25                  30
Thr Glu Asp Gln Lys Lys Pro Thr Ala Thr Arg Ser Val Ala Arg Arg
        35                  40                  45
Glu Thr Arg Ala Arg Ala Lys Gln Pro Ser Ala Asp Glu Thr Thr Pro
    50                  55                  60
Ala Val Ser Glu Gln Ala Asp Glu Lys Thr Ala Thr Ser Ser Arg Arg
65                  70                  75                  80
Gly Arg Gly Lys Lys Gly Ala Ser Ala Met Asn Gly Asn Ser Ile Ala
                85                  90                  95
Ser Tyr Phe Lys Lys Val Asp Met Glu Asp Pro Glu Asp Lys Pro Thr
            100                 105                 110
Val Gln Glu Ala Leu Glu His Ala Ala Asp Glu Tyr Glu Ala Asn Pro
        115                 120                 125
Ser Ala Leu Gly Gly Gln Asp Leu Val Ala Thr Gln Gln Pro Glu Leu
    130                 135                 140
Val Thr Gly Gly Arg Met Arg Lys Tyr Gln Leu Glu Gly Leu Glu Trp
145                 150                 155                 160
Leu Lys Ser Leu Trp Met Asn Gly Leu Cys Gly Ile Leu Ala Asp Glu
                165                 170                 175
Met Gly Leu Gly Lys Thr Val Gln Ala Ile Ser Leu Ile Ala Phe Phe
            180                 185                 190
Lys Glu Lys Asn Val Ser Gly Pro Phe Leu Ile Ala Ala Pro Leu Ser
        195                 200                 205
```

```
Thr Val Ser Asn Trp Val Asp Glu Phe Ala Lys Trp Thr Pro Ser Ile
    210                 215                 220
Lys Thr Val Leu Tyr His Gly Ser Lys Asp Glu Arg Ala Thr Ile Arg
225                 230                 235                 240
Arg Asn Leu Met Lys Leu Lys Asp Gln Arg Ser Ala Asp Phe Pro Val
                245                 250                 255
Val Cys Thr Ser Tyr Glu Ile Cys Met Asn Asp Arg Lys Phe Leu Ala
            260                 265                 270
Gln Tyr Gln Trp Arg Tyr Ile Ile Val Val Ser Ser Ala Leu Pro Ser
        275                 280                 285
Thr
```

<210> 39384
<211> 272
<212> PRT
<213> A.fumigatus

<400> 39384

```
Lys Gly Cys Ala Ser Leu Thr Arg Gly Gln Asp Glu Gly His Arg Leu
1               5                   10                  15
Lys Asn Met Asn Cys Lys Leu Ile Lys Glu Leu Leu Ser Tyr Asn Ser
            20                  25                  30
Ala Asn Arg Leu Leu Ile Thr Gly Thr Pro Leu Gln Asn Asn Ile Thr
        35                  40                  45
Glu Leu Trp Ser Leu Leu His Phe Leu Leu Pro Glu Ile Phe Asn Asp
    50                  55                  60
Leu Asn Ser Phe Gln Ser Trp Phe Asp Phe Ser Ser Met Leu Asp Ser
65                  70                  75                  80
Ser Gly Gln Thr Asp Val Ile Glu Arg Arg Lys Arg Thr Leu Val Ser
                85                  90                  95
Thr Met His Ser Ile Leu Lys Pro Phe Leu Leu Arg Arg Val Lys Ser
            100                 105                 110
Asp Val Glu Thr Ala Leu Pro Lys Lys Arg Glu Tyr Ile Leu Tyr Ala
        115                 120                 125
Pro Leu Thr Ala Glu Gln Lys Asp Leu Tyr Arg Glu Ile Leu Asn Gly
    130                 135                 140
Thr Gly Arg Gln Tyr Leu Glu Asp Lys Ala Ala Glu Arg Leu Leu Ala
145                 150                 155                 160
Lys Asn Glu Arg Leu Ser Arg Ser Ala Ser Leu Lys Arg Ser Ala Glu
                165                 170                 175
Ser Ser Asn Ala Ser Thr Pro Asn Lys Ser Leu Lys Ser Ser Arg Asp
            180                 185                 190
Ser Thr Pro Ala Ser Val Ala Ser Ser Thr Arg Arg Arg Arg Ala Pro
        195                 200                 205
Gln Asn Tyr Lys Glu Leu Ser Asp Arg Glu Phe Asn Ala Gln Leu Arg
    210                 215                 220
Arg Leu Glu Gln Gly Leu Glu Asp Asp Leu Asp Ile Gln Gln Ser Pro
225                 230                 235                 240
Thr Asp Thr Glu Gln Glu Glu Ile Glu Arg Ala Asn Thr Ile Lys Leu
                245                 250                 255
Ala Ser Thr Tyr Met Ala Gly Ser Asn Leu Glu Ala Thr Asp Ser Cys
            260                 265                 270
```

<210> 39385
<211> 292

<212> PRT
<213> A.fumigatus

<400> 39385
Arg Thr Tyr Thr Glu Lys Glu Ile Ala Gln Lys Lys Leu Gln Asn Pro
1 5 10 15
Val Met Gln Ala Arg Leu Ala Cys Asn Ser Pro His Asn Phe Tyr Trp
20 25 30
Pro Trp Ser Asp Asp Pro Ala Ala Ile Asp Glu Thr Leu Val Thr Ala
35 40 45
Ser Gly Lys Met Leu Leu Leu Asp Arg Leu Val Pro Cys Leu Leu Lys
50 55 60
Lys Gly His Lys Ile Leu Ile Phe Ser Gln Phe Lys Thr Gln Leu Asp
65 70 75 80
Ile Leu Gln Asp Trp Ala Thr Gln Leu Arg Gly Trp Asn Cys Cys Arg
85 90 95
Ile Asp Gly Ala Ile Ser Gln Thr Asp Arg Gln Ala Gln Ile Lys Ala
100 105 110
Phe Asn Ser Asp Pro Gly Tyr Lys Ile Phe Leu Leu Ser Thr Arg Ala
115 120 125
Gly Gly Gln Gly Ile Asn Leu Val Ala Ala Asp Thr Val Ile Leu Tyr
130 135 140
Asp Ser Asp Trp Asn Pro Gln Gln Asp Leu Gln Ala Gln Asp Arg Ala
145 150 155 160
His Arg Ile Gly Gln Thr Lys Pro Val Ile Val Tyr Arg Leu Ala Thr
165 170 175
Lys Gly Thr Val Glu Gln Thr Leu Leu Glu Lys Ala Asp Ser Lys Arg
180 185 190
Arg Leu Glu Arg Leu Val Ile Gln Lys Gly Lys Phe Arg Ser Leu Leu
195 200 205
Asp Ser Ser Ser Val Asn His Ser Asp Val Glu Glu Leu Lys Lys Ala
210 215 220
Leu Gly Glu Asp Glu Phe Glu Arg Phe Glu Thr Gly Ala Asp Pro Thr
225 230 235 240
Ala Leu Leu Ser Gln Lys Asp Leu Glu Ile Leu Thr Asp Arg Ser Glu
245 250 255
Glu Ala Tyr Ala Arg Ala Glu Lys Gly Leu Glu His Thr Gly Arg Ala
260 265 270
Phe Lys Ala Val Glu Thr Lys Lys Glu Gly Asn Ser Leu Met Ala Gln
275 280 285
Ile Thr Gly Lys
290

<210> 39386
<211> 222
<212> PRT
<213> A.fumigatus

<400> 39386
Ser Thr Leu Leu Pro Ser Pro Ala Ile Asn Lys Asp Ala Thr Leu Pro
1 5 10 15
Ser Leu His Ile Val Asn Tyr Arg Gln Lys Gly Phe Arg Ile Pro Arg
20 25 30
Thr Ile Pro Ala Ser Leu Arg Ala Ser Phe Glu Asn Asn Lys Ile Asp
35 40 45
Tyr Gln Ile Asp Asn Ala Arg Pro Ala Gln Arg Trp Gly Ala Asp Gly

```
    50                  55                  60
Asp Thr Glu Thr Pro Thr Gly Arg Lys Ala Lys Phe Gly Asp Thr Tyr
65                  70                  75                  80
Leu Ser Arg Leu Gly Val Gly Gly Lys Gly Ser Tyr Thr Pro Lys Gly
                85                  90                  95
Thr Asp Phe Ser Asp Thr Ile Gln Asp Glu Glu Trp Glu Lys Val Arg
            100                 105                 110
Leu Arg Arg Glu Leu Ser Glu Leu Gln Ala Lys Leu Glu Ala Ala Asn
        115                 120                 125
Lys Ala Ser Glu Ser Arg Arg Asp Arg Pro Arg Asn Asp Gly Arg Pro
    130                 135                 140
Asn Trp Thr Leu Ile Lys Lys Glu Ala Leu Gln Leu Leu Glu Tyr Lys
145                 150                 155                 160
Glu Arg Glu Leu Arg Glu Leu Arg Glu Gly Thr Gly Arg Ala Lys Ala
                165                 170                 175
Gly Gln Asp Leu Glu Arg Leu Arg Glu Asp Ile Arg Thr Val Gly Glu
            180                 185                 190
Gln Val Glu Gly Leu Lys Ser His Leu Ala Gln Arg Lys Glu Val Leu
        195                 200                 205
Ala Asp Leu Arg Ser Gln Ile Glu Glu Glu Arg Ala Arg Arg
    210                 215                 220

<210> 39387
<211> 256
<212> PRT
<213> A.fumigatus

<400> 39387
Arg Ser Thr Thr Pro Pro Ser Met Ala Ser Ala Ser Ser Pro Thr Thr
1               5                   10                  15
Ser Pro Ser Arg Thr Ser Ser Ser Thr Thr Pro Pro Val Pro Ser Ser
            20                  25                  30
Ala Thr Ile Pro Met Pro Leu Thr Ser Val Pro Ala Pro Thr Ser Leu
        35                  40                  45
Leu Thr Ala Pro Pro Ser Thr Thr Arg Thr Thr Ala Trp Pro Ser Thr
    50                  55                  60
Pro Val Ser Thr Ser Pro Ser Pro Thr Ala Thr Ala Thr Val Val Thr
65                  70                  75                  80
Val Ser Pro Ser Ala Pro Ser Ala Ala Ala Val Thr Met Ser Ser Thr
                85                  90                  95
Thr Ser Pro Ser Pro Thr Pro Arg Ser Ser Thr Pro Arg Thr Val Leu
            100                 105                 110
Gly Ser Arg Pro Ser Thr Ala Arg Leu Ala Leu Ser Pro Ala Ser Ser
        115                 120                 125
Ser Arg Ile Ser Pro Ser Lys Val Ser Pro Ser Thr Val Leu Leu Ser
    130                 135                 140
Ser Arg Thr Thr Arg Thr Ala Ser Pro Leu Ala Ser Pro Pro Thr Ala
145                 150                 155                 160
Ser Arg Ser Pro Ile Ser Pro Ser Arg Arg Ser Pro Val Pro Ser Pro
                165                 170                 175
Ala Pro Pro Leu Ile Phe Thr Phe Ser Ala Asp Leu Ala Ala Ala Pro
            180                 185                 190
Thr Gly Pro Gly Leu Ala Ile Ala Ser Pro Val Ala Arg Arg Ala Pro
        195                 200                 205
Val Ala Arg Thr Phe Leu Leu Ala Pro His Ala Arg Leu Ala Ser Arg
    210                 215                 220
```

```
Asn Trp Pro Ala Gly Ala Val Glu Ser Val Leu Phe Val Ser Pro Leu
225                 230                 235                 240
Leu Asp Ser Cys Leu Val Phe Asp His Glu Gly Trp Lys Tyr Arg Val
                245                 250                 255

<210> 39388
<211> 65
<212> PRT
<213> A.fumigatus

<400> 39388
Thr Asn Glu Pro Gly His Ala Ala His Leu Pro Arg Glu Arg Asn Gln
1               5                   10                  15
Val His Ser Leu Cys Gly Asp Lys Ser Thr Pro Ile Ser Leu Thr His
            20                  25                  30
Gly Asn Asp Lys Val Gly Val Leu Asn Pro Gln Trp Val Glu His Gly
        35                  40                  45
Ser Val Thr Gln Tyr Glu Gln Ser Ser Gln Cys Pro Gly Ala Thr Ser
    50                  55                  60
His
65

<210> 39389
<211> 68
<212> PRT
<213> A.fumigatus

<400> 39389
Gly Glu Tyr Glu Tyr Leu Thr Ala Leu Val Ser Phe Leu Ile Ala Phe
1               5                   10                  15
Lys Arg Arg Thr Arg Thr Ile Arg Ser Ala Cys Ser Trp Asp Lys Lys
            20                  25                  30
Glu Thr Arg Lys Leu Val Thr Ala Asn Glu His Met Leu Asn Met Asp
        35                  40                  45
Ser Leu Phe Leu Val Phe Ile Tyr Phe Leu Gly Leu Phe Thr Pro Ile
    50                  55                  60
Ser Asn Cys Ile
65

<210> 39390
<211> 402
<212> PRT
<213> A.fumigatus

<400> 39390
Pro Glu Pro Cys Pro Ile Phe Leu Asn Arg Val Pro Thr Ile Asp Phe
1               5                   10                  15
Arg Ser Ser Thr Met His Phe Phe Gln Ser Ser Leu Val Ala Ala Thr
            20                  25                  30
Met Gly Ala Ala Leu Val Ala Ala Ala Pro Ala Ala Asp Leu Glu Thr
        35                  40                  45
Arg Gly Ser Cys Thr Phe Thr Ser Thr Ser Ala Leu Lys Ser Gly Lys
    50                  55                  60
Ala Ser Cys Ser Thr Ile Thr Leu Gln Asn Ile Ala Val Pro Ala Gly
65                  70                  75                  80
Glu Thr Leu Asp Leu Thr Gly Leu Lys Thr Gly Thr Thr Val Ser Leu
```

```
                85                  90                  95
Thr Leu Glu Leu Ser Glu Cys His Arg Leu Met Cys Cys Gln Lys Val
            100                 105                 110
Val Phe Asp Gly Thr Thr Thr Phe Gly Tyr Lys Glu Trp Glu Gly Pro
        115                 120                 125
Leu Ile Ser Ala Ser Gly Thr Ser Ile Thr Ile Lys Gln Asn Pro Gly
    130                 135                 140
Ala Lys Ile Asp Cys Asp Gly Ala Arg Trp Trp Asp Gly Lys Gly Gly
145                 150                 155                 160
Asn Gly Gly Lys Lys Lys Pro Lys Phe Phe Ser Ala His Lys Leu Asn
                165                 170                 175
Lys Ser Asn Ile Thr Gly Leu Lys Val Tyr Asn Thr Pro Val His Gly
            180                 185                 190
Phe Ser Ile Gln Ser Asp His Leu Thr Ile Lys Asp Val Leu Leu Asp
        195                 200                 205
Asn Ser Ala Gly Thr Lys Leu Gly His Asn Thr Asp Ala Phe Asp Val
    210                 215                 220
Gly Ser Ser Thr Tyr Ile Thr Ile Asp Gly Ala Thr Val Tyr Asn Gln
225                 230                 235                 240
Asp Asp Cys Leu Ala Val Asn Ser Gly Glu His Ile Thr Phe Thr Asn
                245                 250                 255
Gly Tyr Cys Asn Gly Gly His Gly Leu Ser Ile Gly Ser Val Gly Gly
            260                 265                 270
Arg Ser Asn Asn Val Val Asn Asp Val Thr Ile Ser Asn Ser Gln Val
        275                 280                 285
Ile Asn Ser Gln Asn Gly Ala Arg Ile Lys Thr Val Tyr Gly Ala Thr
    290                 295                 300
Gly Ser Val Thr Gly Val Lys Phe Gln Asp Ile Ser Leu Lys Gly Ile
305                 310                 315                 320
Thr Lys Tyr Gly Ile Val Val Gln Gln Asp Tyr Glu Asn Gly Lys Pro
                325                 330                 335
Thr Gly Lys Pro Thr Asn Gly Val Lys Val Ser Asp Ile Thr Phe Glu
            340                 345                 350
Lys Val Thr Gly Thr Val Thr Ser Ser Ala Thr Asp Ile Tyr Ile Leu
        355                 360                 365
Cys Gly Ser Gly Ser Cys Thr Asn Trp Thr Trp Ser Gly Asn Ser Val
    370                 375                 380
Thr Gly Gly Lys Lys Ser Ser Ser Cys Lys Asn Val Pro Ala Gly Ala
385                 390                 395                 400
Ser Cys
```

<210> 39391
<211> 88
<212> PRT
<213> A.fumigatus

<400> 39391

```
Thr Ser Ser Val Cys His Phe Ser Arg Ser Val Leu Asn Asn Ile Ile
1               5                   10                  15
Gly Gly Pro Asp Glu Val Tyr Met Ala Gly Leu Val Ser Val Cys Pro
            20                  25                  30
Cys Ser Thr Val Trp Pro Leu Met Thr Ser Gln Thr Asn Tyr Ile Thr
        35                  40                  45
Ser Thr Gly Ala Tyr Ala Leu Ile Asp Pro Arg Thr Leu Ala Asp Ser
    50                  55                  60
```

```
Lys Ser Ser Leu Gln Pro Arg Met Lys Thr Leu Ile Glu Pro Ala Met
65                  70                  75                  80
Ala Ser Leu Pro Met Ser Ile Ile
                85
```

<210> 39392
<211> 89
<212> PRT
<213> A.fumigatus

<400> 39392

```
Thr Ala His Ser Leu Pro Ser Thr Gly Val Gly Ser Asn Glu Ser Gly
1               5                  10                  15
Ala Glu Phe Gly Ser Gly Thr Ile Pro Gly Val Pro Gly Lys Asp Cys
            20                  25                  30
Ile Trp Leu Asn Thr Thr Ala Ile Gly Ile Met Lys Glu Ala Gly Thr
        35                  40                  45
Arg Val Glu His Leu Pro Cys Ala Ile Ser His Gly Ala Ser Ser Thr
    50                  55                  60
Thr Ser Leu Glu Ala Leu Met Arg Cys Thr Trp Leu Val Trp Ser Leu
65                  70                  75                  80
Tyr Val His Ala Gln Leu Tyr Gly Pro
                85
```

<210> 39393
<211> 108
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (78)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39393

```
Pro Pro Ala Glu Asn Glu Asn Thr Asn Arg Thr Ser Tyr Gly Glu Phe
1               5                  10                  15
Ala Tyr Glu Tyr Tyr Leu Lys Val Phe Gly Ala Ile Phe Ser Lys Val
            20                  25                  30
Glu Leu Tyr Gly Asn Val Asp Gly Glu Gly Asp Cys Tyr Gly Asp Cys
        35                  40                  45
Phe Glu Tyr Glu Leu Asp Asn Arg Gly Asn Arg Asp Val Tyr Cys Ser
    50                  55                  60
Cys Thr Val Leu Gly Ser Met Gly Ser Leu Gly Leu Asn Xaa Ala Asp
65                  70                  75                  80
Asp Leu Cys Ile Pro Tyr Ile Cys Gln Val Gln Asn Ala Tyr Val Arg
                85                  90                  95
Ser Val Cys Met Cys Cys Trp Asn Gly Ser Gln Gly
            100                 105
```

<210> 39394
<211> 105
<212> PRT
<213> A.fumigatus

<400> 39394

```
Arg Leu Arg Ser Cys Tyr Asn Ala Phe Ser His Leu Asp Met Arg Val
1               5                  10                  15
Glu Val Lys Ile Pro Gly Ser Leu Glu Ser Tyr Cys Ile Asp Glu Arg
            20                  25                  30
Gly Asp Lys Arg Val Ala Thr Glu Ala Leu Trp Leu Glu Thr Phe Leu
        35                  40                  45
Cys Gly Val Leu Arg Ala Tyr Ser Tyr Ala Asp Asp Gly Ser Gly Asp
    50                  55                  60
Ala Ile Arg Lys Ile Val Gly Val Arg Arg Phe Asn Pro Val Thr Asn
65                  70                  75                  80
Thr Glu Met Glu His Lys Phe Leu Asp Ala Ala Glu Arg Leu Phe Phe
                85                  90                  95
Leu Gly Ala Leu His Cys Lys Phe Cys
            100                 105
```

<210> 39395
<211> 74
<212> PRT
<213> A.fumigatus

```
<400> 39395
Thr Gly Val Tyr His His Val Thr Gly Val Asp Ala Ser Ser Ser Ala
1               5                  10                  15
Ser Leu Ala Ala Tyr Val Asn Thr Leu Thr Phe Ser Pro Leu Asp Lys
            20                  25                  30
Thr His Lys Val Val Ser Gly Ile Tyr Trp Ser Glu Thr Gln Met Asn
        35                  40                  45
Glu Arg Asn Asp Ser Val Met Val Asn Val Cys Ala Ala Val Thr Met
    50                  55                  60
Pro Ser Arg Ile Ser Ile Cys Val Ser Lys
65                  70
```

<210> 39396
<211> 340
<212> PRT
<213> A.fumigatus

```
<400> 39396
Gln Glu Leu Ile Gly Arg Gln Leu Ser Ser Asp Pro Glu Thr Gln Val
1               5                  10                  15
Pro Ser Thr Val Ser Asn His Leu Thr Ala Gly Leu Leu Lys Tyr Ile
            20                  25                  30
Gln Thr Thr Gly Arg Tyr Thr Ser Gly Val Asn Leu Phe Glu Lys Leu
        35                  40                  45
Arg Thr Arg Asp Val Glu Val Ser Ser Leu Leu Ala Arg Val Leu Leu
    50                  55                  60
Met Ala Asp Glu Glu Val Gln Ala Val Arg Leu Met Tyr Asp Ala Leu
65                  70                  75                  80
Gln Asp Val Pro Met Asp Tyr Ala Leu Leu Asp Cys Gln Ala Ala Phe
                85                  90                  95
Cys Met Ser Lys Gly Glu Gly Glu Leu Ala Leu Glu Cys Ala Lys Arg
            100                 105                 110
Ala Val Thr Ala Ala Pro Ser Glu Phe Ser Thr Trp Ala Arg Leu Ala
        115                 120                 125
Glu Val Tyr Val Ser Leu Glu Gln Trp Asp Leu Ala Leu Leu Thr Leu
    130                 135                 140
```

```
Asn Ser Cys Pro Met Phe Thr Tyr Gln Asp Lys Asp Thr Pro Arg Met
145                 150                 155                 160
Pro Gln Pro Ser Arg Ile Met Leu Pro Ile Leu Ala Glu Ser Ile Leu
                165                 170                 175
Asp Glu Ile Asp Glu Gly Gln Pro Lys Gln Gly Asp Pro His Asp Tyr
            180                 185                 190
Ile His Pro Ser Leu Arg Lys Leu His Ala Ala Ser Tyr Gln Gly Thr
        195                 200                 205
Phe Leu Lys Ala Tyr Asn Leu Leu Thr Lys Ile Ala Ala Ser Ile Gly
    210                 215                 220
Trp Asp Gln Leu Leu Lys Ile Arg Ser Glu Val Phe Val Met Glu Glu
225                 230                 235                 240
Glu Tyr Arg Val Glu Arg Gln His Ser Thr Ser Lys Pro Gly Lys Ser
                245                 250                 255
Asp Ser Val Ala Glu Ile Gln Gly Val Glu Thr Asn Gly Asn Gly Glu
            260                 265                 270
Asn Gly Asp Gly Ser Gly Ala Glu Asp Ala Asp Gln Ser Ala Glu Thr
        275                 280                 285
Ala Ala Ser Asn Asn Gly Val Asn Glu Thr Gln Val Glu Ser Ser Ile
    290                 295                 300
Glu Lys Pro Glu Gln Ser Met Ala Ser Glu Val Val Lys Ser Ser Asn
305                 310                 315                 320
Asp Asp Val Ser Leu Ser Thr Ser Pro Leu Leu Leu Pro Arg Met Leu
                325                 330                 335
Met Met Asn Phe
            340
```

<210> 39397
<211> 112
<212> PRT
<213> A.fumigatus

<400> 39397

```
Ala Asp Pro Ser His Ser Ser Tyr Thr Gln Phe Lys Asn Lys Arg Leu
1               5                   10                  15
Cys Glu Arg Trp Leu Asp Asn Leu Phe Met Val Leu Tyr Glu Asp Leu
            20                  25                  30
Arg Ile Tyr Thr Ile Trp Arg Thr Glu Met Ala Gln Phe Arg Gln Gln
        35                  40                  45
Ala Ile Glu Tyr Lys Lys Ser Ala Thr Glu Trp Glu Ile Leu Gly Glu
    50                  55                  60
Leu Ala Glu Arg Leu His His Phe Asp Glu Ala Ile Glu Ala Tyr Gln
65                  70                  75                  80
His Cys Leu Ser Ile Arg Phe Ser Pro Lys Ala Met Arg Gly Ile Leu
                85                  90                  95
Lys Met Tyr Asp Asn Arg Asn Asp Thr Arg Gly Ile Pro Arg Leu Ala
            100                 105                 110
```

<210> 39398
<211> 104
<212> PRT
<213> A.fumigatus

<400> 39398

```
Pro Leu Arg Ser Ile Gln Lys Leu Val Leu His Leu Arg Val Gly Tyr
1               5                   10                  15
```

```
Arg Val Glu Ser Ser Asn Thr Asp Asp Phe Ser Asp Gly Ile Thr Thr
            20                  25                  30
Thr Val Val Arg Val Arg Ile Cys Ser Gln Tyr Thr Thr Glu Glu Gly
        35                  40                  45
Phe Lys Pro Gln Arg Leu Arg Ser Asn Thr Leu Ile Ala Ser Leu Ile
    50                  55                  60
Asp Ala Ile Ala Leu Gln Thr Pro Trp Tyr Leu His Phe Asp Thr His
65                  70                  75                  80
Ile Glu Met Arg Glu Gly Ile Val Thr Ala Ala Gln Thr Leu Thr Ile
                85                  90                  95
Thr Glu Ser Leu Arg Ser Phe Ile
            100
```

<210> 39399
<211> 143
<212> PRT
<213> A.fumigatus

<400> 39399

```
Asp Gly Val His His Ser Gln Phe Ile Ala Gly Val Arg Asp Leu Phe
1               5                   10                  15
Ala Gly Arg Val Asp Ala Val Met Ser Ser Trp Val Ala Leu Asn Ile
            20                  25                  30
Glu Pro Asp Glu Ala Ile Glu Glu Glu Val Asp Asp Thr Lys Glu Ile
        35                  40                  45
Gln Ile Glu Glu Ala Leu Lys Leu Tyr Gln Asn Ala Leu Lys Leu His
    50                  55                  60
Ser Gln Gly Pro Gln Phe Tyr Ala Gln Ala Ala Glu Ala Tyr Glu Ala
65                  70                  75                  80
Leu Leu Ser Ser Asp Ile Phe Lys Tyr Pro Glu Ser Ile Ser Asp Phe
                85                  90                  95
Lys Arg Ser Ala Leu Gln Asp Ser Glu Ala His Leu Asp Asp Asp Val
            100                 105                 110
Ala Val Ile Asp Ala Val Glu Thr Phe Pro Glu Phe Ser Val Asn Asp
        115                 120                 125
Ser Thr Ser Ser Thr Leu Leu Gln Thr Ser Ser Leu Ser Tyr Lys
    130                 135                 140
```

<210> 39400
<211> 264
<212> PRT
<213> A.fumigatus

<400> 39400

```
Thr Val Ser Leu Ser Val Thr Asp Arg Glu Pro Phe Leu Thr Asp Ile
1               5                   10                  15
Ala Ile Gly Val Phe Gln Asp Tyr Tyr Gln His Asn Gln Leu Arg Glu
            20                  25                  30
Tyr Ser Ala Ser Ser Ile Ser Trp Ile Leu Ser Leu Glu Pro Phe Val
        35                  40                  45
Leu Phe Ala Ala Gly Ile Val Leu Gly Arg Val Phe Asp Asn Tyr Gly
    50                  55                  60
Pro Lys Trp Met Leu Leu Ile Gly Thr Phe Leu His Val Phe Gly Leu
65                  70                  75                  80
Met Met Ile Ser Val Ser Ser Glu Tyr Tyr Gln Phe Leu Leu Ala Gln
                85                  90                  95
```

```
Gly Ile Cys Ser Pro Leu Gly Ala Ser Phe Val Phe Tyr Pro Ala Ser
            100                 105                 110
Ala Cys Thr Ala Thr Trp Phe Asp Lys Arg Arg Ala Leu Ala Phe Gly
        115                 120                 125
Ile Met Ser Ser Gly Ser Ser Ile Gly Gly Val Val Phe Pro Ala Met
    130                 135                 140
Leu Ser Arg Leu Leu Pro Arg Val Gly Phe Gly Trp Ser Leu Arg Ile
145                 150                 155                 160
Ser Ala Phe Val Val Leu Ala Leu Leu Ala Val Ala Asn Met Thr Val
                165                 170                 175
Arg Ser Arg Ile Ala Pro Val Pro Arg Arg Val Gln Phe Ser Asp Tyr
            180                 185                 190
Ile Gly Pro Phe Ser Glu Val Pro Phe Val Leu Leu Met Leu Ala Ser
        195                 200                 205
Cys Cys Gly Phe Trp Ala Met Phe Val Pro Ile Asn Tyr Val Ile Leu
    210                 215                 220
Glu Ala Gln Glu Asp Gly Val Arg Arg Ser Leu Ala Glu Tyr Leu Leu
225                 230                 235                 240
Thr Ile Leu Asn Ala Ala Arg Leu Val Cys Pro Ser Leu Gln Leu Arg
                245                 250                 255
Gly Leu Thr Cys Met Leu Met Ser
            260
```

<210> 39401
<211> 150
<212> PRT
<213> A.fumigatus

<400> 39401

```
Ala Ser Leu Pro Gly Arg Ile Leu Pro Gly Tyr Leu Gly Asp Lys Leu
1               5                   10                  15
Gly Arg Phe Asn Val Met Ile Ala Met Cys Thr Leu Ser Ala Leu Thr
            20                  25                  30
Ile Leu Val Leu Trp Ile Pro Gly Thr Leu Leu Ala Pro Gly Ser Ala
        35                  40                  45
Ala Val Tyr Val Ile Phe Ser Leu Leu Tyr Gly Phe Ala Ser Gly Ala
    50                  55                  60
Phe Val Gly Met Val Pro Ala Leu Leu Ser Gln Ile Thr Ala Asp Met
65                  70                  75                  80
Ser Lys Thr Gly Val Arg Gln Gly Val Leu Tyr Thr Cys Met Ser Ile
                85                  90                  95
Ala Thr Leu Thr Gly Ser Pro Ile Ala Gly Ala Ile Leu Asn Arg Gln
            100                 105                 110
Gln Glu Thr Tyr Trp Gly Leu Gln Val Phe Ala Gly Ala Met Met Val
        115                 120                 125
Gly Ser Val Val Phe Phe Val Ala Ala Arg Val Val Leu Gln Gly Thr
    130                 135                 140
Ser Leu Arg Lys Lys Val
145                 150
```

<210> 39402
<211> 93
<212> PRT
<213> A.fumigatus

<400> 39402

```
Ser Lys Gln Gly Phe Ser Val Trp Leu Ile Thr Ala Lys Asp Lys Asp
1               5                  10                  15
Thr Leu Asp Ala Trp Phe Arg Ala Met Glu Thr Ser Gln Phe Gly Asn
            20                  25                  30
Ile Ala Arg Ile Asn Ala Glu Trp Tyr Arg Tyr Gln Asn Phe Arg Ile
        35                  40                  45
Glu His Ser Thr Thr Asp Tyr Cys Leu Thr Gln Arg Phe Asp Gly Leu
    50                  55                  60
Ile Leu Phe Lys Pro Leu Tyr Gly Tyr Asn Asp Ser Trp His Thr Ile
65                  70                  75                  80
Asn Asn Gly Pro Phe Val Asp Cys Phe Gln Tyr Asn Trp
                85                  90
```

<210> 39403
<211> 129
<212> PRT
<213> A.fumigatus

<400> 39403

```
Leu Thr Cys Asp Ser Cys Arg Tyr Tyr Ile Arg Ser Lys Lys Ser Lys
1               5                  10                  15
Ser Leu Tyr Trp Asp Val Lys Arg Lys Ser Glu Ala Glu Ser Leu Gln
            20                  25                  30
Val Tyr Val Ser Thr Lys Ser Arg Ala Arg Phe Gln Ala Ile Lys Ile
        35                  40                  45
Leu Cys Pro Asn Tyr Ala Pro Ser Pro Val Asp His Arg Ile Leu Gly
    50                  55                  60
Asp Asp Arg Met Ser Leu His His Ala Ala Gly Pro Val Ser Phe Ile
65                  70                  75                  80
Arg Asn Asp Met Gly Phe Leu Ile Leu Thr Ile Ser Cys Leu Asn Pro
                85                  90                  95
His Phe Arg Ile Ser Glu Leu Thr Thr Ser Phe Ala Pro Gln Pro Asp
            100                 105                 110
Asn Arg Ile Ala Tyr Ile Pro Gly Phe Gly Ala Glu Trp Glu Leu Val
        115                 120                 125
Tyr
```

<210> 39404
<211> 226
<212> PRT
<213> A.fumigatus

<400> 39404

```
Asp Glu Cys Arg Thr Cys Ser Ala Leu Arg Thr Asp Tyr Ile Val Ile
1               5                  10                  15
Asp Asp Arg Asp Ala Glu Lys Arg Ser Gln Lys Asp Ser Gly Ser Ser
            20                  25                  30
Glu Trp Ala Ser Val Glu Glu Glu Ser Pro Asp Asp Leu Gly Ala Leu
        35                  40                  45
Ser Ser Ser Glu Val Ala Arg Leu Gly Leu Asn Thr Val Ser Tyr Val
    50                  55                  60
Met Asp Ser Glu Glu Pro Leu Asp Thr Leu Val Arg Ile Ser Gln Asp
65                  70                  75                  80
Phe Pro Lys His Ser Ala Lys Ile Ala Ala Tyr Asn Ala Ser Asp Ala
                85                  90                  95
```

```
Leu Leu Lys Asp Ile Arg Thr Ser Arg Leu Gly Met Leu Pro Ser Gly
            100                 105                 110
Val Asn Val Met Trp Ile Asn Gly Val Gln Ile Asp Pro Arg Gln Ile
        115                 120                 125
Asp Ala Phe Ser Leu Leu Asp His Leu Arg Arg Glu Arg Lys Leu Ile
    130                 135                 140
Asp Lys Phe Arg Ser Ile Gly Leu Ser Ala Gln Glu Ala Val Asp Leu
145                 150                 155                 160
Leu Cys His Gln Thr Leu Gly Glu Thr Leu Ala Lys Asp Ser Pro Pro
                165                 170                 175
Arg Tyr Asn Tyr Arg Asp Gln Ile Glu Gly Gly Gly Val Ile Ile Trp
            180                 185                 190
Met Asn Asp Leu Glu Lys Asp Thr Lys Tyr Gln Ser Trp Pro Asp Asp
        195                 200                 205
Leu Ser Ala Val Ser Phe His Leu Gln Phe Cys Val Cys Val Ala Tyr
    210                 215                 220
Leu Pro
225
```

<210> 39405
<211> 277
<212> PRT
<213> A.fumigatus

<400> 39405

```
Cys Glu Thr Pro Ser Ile Pro Ser Asn Ser Gly Leu Leu Asn Asn Ser
1               5                   10                  15
Ser Arg Leu His Ser Asn Pro Ser Phe Leu Ile Trp Gln Glu Asn Met
            20                  25                  30
Ala Phe Arg Thr Lys Trp Ser Pro Asn Asn Gly Pro His Trp Leu Arg
        35                  40                  45
Ala Gln Arg Glu Lys Gln Arg Arg Ser Gly Glu Tyr Lys Ile Leu Phe
    50                  55                  60
Leu Asp Val Leu Phe Pro Leu Ser Leu Asp Lys Phe Ile Phe Leu Asp
65                  70                  75                  80
Ala Asp Gln Ile Val Arg Thr Asp Met Tyr Asp Ile Val Ser Leu Asp
                85                  90                  95
Leu Glu Gly Ala Pro Tyr Gly Ser Thr Pro Met Cys Asp Ser Arg Glu
            100                 105                 110
Glu Met Glu Gly Phe Arg Phe Trp Lys Gln Gly Tyr Trp Lys Asn Phe
        115                 120                 125
Leu Arg Gly Leu Pro Tyr His Ile Ser Ala Leu Tyr Val Val Asp Leu
    130                 135                 140
Asn Arg Phe Arg Ala Leu Ala Ala Gly Asp Arg Leu Arg Gly Gln Tyr
145                 150                 155                 160
Gln Met Leu Ser Ala Asp Pro Asn Ser Leu Ser Asn Leu Asp Gln Asp
                165                 170                 175
Leu Pro Asn His Met Gln His His Ile Pro Ile Lys Ser Leu Pro Gln
            180                 185                 190
Glu Trp Leu Trp Cys Glu Thr Trp Cys Ser Asp Asp Ser Leu Ser Thr
        195                 200                 205
Ala Arg Thr Ile Asp Leu Cys Asn Asn Pro Gln Thr Lys Glu Pro Lys
    210                 215                 220
Leu Asp Arg Ala Arg Arg Gln Val Pro Glu Trp Thr Lys Tyr Asp Asp
225                 230                 235                 240
Glu Ile Ala Ala Leu Ala Glu Arg Val Ala Leu Glu Gln Gln Arg Gln
```

```
                245                 250                 255
Gln Leu Glu Glu Met Glu Ser Ala Asp Glu Asp Glu Glu Ser Gly Trp
            260                 265                 270
Glu Lys Asp Glu Leu
        275
```

<210> 39406
<211> 719
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (643)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39406

```
Ser Ala Ala Lys Lys Lys Ile Gly Ser Pro Asp Lys Ala Ile Phe Gln
1               5                  10                  15
His Ala Ile Lys Asp Arg Thr Ser Arg Pro Asn Lys Gln Ile Leu Ser
            20                  25                  30
Phe Asp Glu Ile Leu Lys Ser Asp Glu Leu Glu Ile Leu Val Ser Arg
        35                  40                  45
Thr Lys Gln Tyr Gln Asp Arg Leu Gly Ile Lys Gly Asn Ala Ser Tyr
    50                  55                  60
Ile Leu Val Asn Gly Val Phe Val Pro Arg Asp Asp Asn Trp Pro Gln
65                  70                  75                  80
Glu Met Ser Met Arg Val Gly Arg Asp Leu Gln Thr Ile Gln Gln Gly
                85                  90                  95
Val Val Asp Gly Ser Ile Glu Glu Asp Thr Trp Leu Pro Glu Leu Phe
            100                 105                 110
Leu Ser Glu Ala Phe Asp Arg Arg Asn Pro Leu Ile Ile Pro Glu Asp
        115                 120                 125
Ser Lys Asp Ile Arg Ile Val Asp Ile Ser Lys Leu Ala Lys Ser Arg
    130                 135                 140
Gly Asp Ser Ala Asp Thr Leu Arg Ile Ala Ser Glu Met Asp Thr Leu
145                 150                 155                 160
Asp Ser Lys His Leu Ile Val Val Gly Asp Phe Asp Ser Glu Asn Gly
                165                 170                 175
Leu Lys Leu Leu Val Glu Ala Leu Glu Leu Arg Ala Thr His Gly Glu
            180                 185                 190
Val Glu Met Val Leu Ile His Asn Pro Ala Pro Asp Val Glu Thr Glu
        195                 200                 205
Ser Gly Ser Ala Leu Ile Tyr Asn Ala Leu Lys Gly Thr Asp Lys Val
    210                 215                 220
Asp Ala Ser Arg Val Leu Arg His Leu Lys Thr Ala Glu Asn Thr Asn
225                 230                 235                 240
Phe Pro Glu Ala Glu Ala Lys Lys Met Ser Gln Phe Trp Glu Ala Gln
                245                 250                 255
Gln Ala Leu Ala Arg Asp Leu Gly Phe Leu Pro Gly Thr Asn Gly Val
            260                 265                 270
Ile Val Asn Gly Arg Ala Ile Gly Pro Leu Pro Asp Gly Ser Thr Leu
        275                 280                 285
Ser Lys Glu Asp Leu Asp Gly Leu Leu Thr Tyr Glu Glu Ala Arg Arg
    290                 295                 300
Ile Gly Pro Val Ala Lys Ala Ala Lys Asp Leu Gly Leu Glu Ser Lys
```

```
305                 310                 315                 320
Leu Ser Gly Pro Leu Ala Leu Ala Glu Leu Ser Ser Leu Ala Ala Leu
                325                 330                 335
Ser Thr Val Ser Asp Val Pro Glu Gly Ile Phe Glu Gln Met Ser Ser
            340                 345                 350
Ile Arg Met Asp Leu Phe Lys Lys Trp Asn Asp Leu Leu Ser Val Ile
        355                 360                 365
Thr Val Ser Thr Ser Glu Asp Pro Ala Ile Ile Ile Ala Ala Ser Ile
    370                 375                 380
Asp Pro Thr Ser Glu Thr Ala Gln Arg Trp Leu Pro Ile Leu Lys Val
385                 390                 395                 400
Leu Ser Arg Leu Ala Gly Val Arg Val Thr Leu Ala Leu Asn Pro Arg
                405                 410                 415
Asp Gln Ile Gln Glu Leu Pro Thr Lys Arg Phe Tyr Arg Tyr Val Leu
            420                 425                 430
Asp Ser Glu Pro Ser Phe Asn Asp Asp Gly Thr Leu Ala Arg Pro Thr
        435                 440                 445
Ala Thr Phe Ser Gly Val Pro Val Glu Ala Leu Leu Thr Leu Gly Met
    450                 455                 460
Asp Val Pro Ser Pro Trp Leu Val Ala Pro Lys Glu Ser Ile Tyr Asp
465                 470                 475                 480
Leu Asp Asn Ile Lys Leu Ser Ser Leu Lys Pro Asp Ala Asn Val Asp
                485                 490                 495
Ala Ile Tyr Ala Leu Glu His Ile Leu Ile Glu Gly His Ser Arg Asp
            500                 505                 510
Val Thr Val Lys Thr Ala Pro Arg Gly Val Gln Leu Ile Leu Gly Thr
        515                 520                 525
Glu Asp Asn Pro His Phe Ala Asp Thr Ile Ile Met Ala Asn Leu Gly
    530                 535                 540
Tyr Phe Gln Phe Lys Ala Gln Pro Gly Leu Trp Lys Ile Asn Leu Lys
545                 550                 555                 560
Pro Gly Arg Ser Gln Arg Ile Phe Asn Leu Asp Ser Val Gly Gly Gln
                565                 570                 575
Gly Tyr Ser Pro Gln Pro Gly Asp Glu Asn Asn Glu Val Ala Leu Leu
            580                 585                 590
Ser Phe Gln Gly Lys Thr Leu Phe Pro Arg Leu Ser Arg Lys Lys Gly
        595                 600                 605
Gln Glu Met Glu Asp Val Leu Asp Thr Asp Val Lys Ser Gly Ser Ala
    610                 615                 620
Met Asp Tyr Val Ser Lys Gly Phe Asn Phe Ala Gln Gly Val Leu Ser
625                 630                 635                 640
Ser Val Xaa Val Gly Ser Lys Asp Gly Leu Ala Glu Lys Gln Ala Asp
                645                 650                 655
Ile Asn Ile Phe Ser Val Ala Ser Gly His Leu Tyr Glu Arg Met Leu
            660                 665                 670
Asn Ile Met Met Val Ser Val Met Arg Asn Thr Lys His Thr Val Lys
        675                 680                 685
Phe Trp Phe Ile Glu Gln Phe Leu Ser Pro Ser Phe Lys Ser Phe Leu
    690                 695                 700
Pro His Leu Ala Arg Glu Tyr Gly Phe Ser Tyr Glu Met Val Thr
705                 710                 715
```

<210> 39407
<211> 91
<212> PRT
<213> A.fumigatus

<400> 39407
Pro Phe Thr Leu Ala Phe Cys Ile Asp Val Gly Ala Phe Gly Val Thr
1 5 10 15
Phe Ala Gly Phe Leu Ser Glu Gly Ser Ser Gly Pro Asp Thr Asp Ser
20 25 30
Ser Ser Glu Ser Glu Val Ser Asp Ala Asp Ser Glu Ser Asp Ser Asp
35 40 45
Ser Asp Asn Val Ser Cys Gly Gly Ser Ser Ser Leu Ile Val Gly Phe
50 55 60
Asp Gly Phe Glu Ala Leu Gly Arg Gly Val Val Phe Val Ser Ala Leu
65 70 75 80
Thr Thr Glu Ser Glu Ala Asp Phe Phe Val Ala
85 90

<210> 39408
<211> 654
<212> PRT
<213> A.fumigatus

<400> 39408
Thr Ser Ser Gln Lys Pro His His Trp Thr His Glu Gln Asp Asp Glu
1 5 10 15
Leu Ile Asp Leu Val Gly Gln Tyr Gly Pro Arg Phe Ala His Ile Ala
20 25 30
Lys Ile Leu Gly Arg Val Glu Asp Asp Val Val Gln Arg Trp Lys Asn
35 40 45
Arg Leu Glu His Arg Ser Thr Met Arg Arg Gly Ala Trp Ser Glu Glu
50 55 60
Glu Val Arg Gly Leu Leu Asp Ala Leu Gln Glu Ser Trp Asn Asn Leu
65 70 75 80
Lys Lys Asp Gly Gln Asp Val Gly Arg Asp Ile Tyr Glu Met Asp Glu
85 90 95
Gly Leu Val Ser Trp Gly Thr Val Ser Asn Lys Leu Gln Asn Cys Arg
100 105 110
Ser Arg Gln Gln Cys Ala Asp Lys Trp Arg Lys Ile Arg Arg Lys Ile
115 120 125
Met Gly Gln Arg Arg Thr Gly Asn Gln Asp Ala Ile Tyr Asp Pro Ala
130 135 140
Thr Glu Ala Lys Pro Gln Gly Arg Ala Lys Ser Ile Thr Leu Ala Glu
145 150 155 160
Gln Met Glu Met Glu Arg Met Leu Lys Ser Ser Glu Tyr Val Asp Ser
165 170 175
Glu Asp Gly Asp Glu Glu Asp Val Glu Gln Ser Leu Gly Thr Glu Ser
180 185 190
Gln Ser Pro Asn Ile Lys Asp Glu Gly Glu Ser Ala Glu Lys Glu Ser
195 200 205
Ile Ile Ile Pro Ala Pro Glu Lys Pro Pro Ala Pro Ser Val Lys Ala
210 215 220
Leu Asn Glu Thr Ser Gln Phe Lys Glu Ser Gln Thr Glu Asn Asp Val
225 230 235 240
Asp Ser Glu Ser Asp Ala Ser Ser Asp Ser Ala Asp Ser Ala Ser Asp
245 250 255
Asp Ala Ser Glu Ala Glu Ile Lys Leu Gly Ser Glu Ser Gly Ser Asp
260 265 270
Ala Asp Ser Ser Val Glu Ser Asp Ala Lys Val Asp Ala Arg Met Arg

```
        275                 280                 285
Ala Gln Ser Ser Lys Arg Gln Glu Lys Asp Val Arg Asn Asn Lys Ala
    290                 295                 300
Ser Ser Val Lys Ser Ser Leu Glu Pro Thr Lys Pro Met Pro Lys Gln
305                 310                 315                 320
Lys Leu Val Glu Arg Ser Lys Pro Lys Thr Ser Asp Gly Lys Gln Ser
                325                 330                 335
Gly Ser Gln Ala Thr Lys Lys Ser Ala Ser Asp Ser Val Val Asn Ala
            340                 345                 350
Glu Thr Asn Thr Thr Pro Arg Pro Lys Ala Ser Lys Pro Ser Lys Pro
        355                 360                 365
Thr Ile Lys Glu Glu Glu Pro Pro Gln Glu Thr Leu Ser Glu Ser Glu
    370                 375                 380
Ser Asp Ser Glu Ser Ala Ser Asp Thr Ser Asp Ser Glu Asp Glu Ser
385                 390                 395                 400
Val Ser Gly Pro Glu Glu Pro Ser Asp Arg Lys Pro Ala Lys Val Thr
                405                 410                 415
Pro Lys Ala Pro Thr Ser Met Gln Lys Ala Ser Val Lys Gly Gln Val
            420                 425                 430
Ser Gln Lys Thr Gln Lys Lys Asp Glu Pro Glu Glu Ser Ser Ser Thr
        435                 440                 445
Ser Asp Glu Thr Ser Ser Gly Asp Asp Asn Thr Asp Asp Ser Glu Ala
    450                 455                 460
Asp Asp Asp Ser Asp Ser Asp Ser Asp Asn Ser Ser Ser Ala Ser Ala
465                 470                 475                 480
Asp Lys Pro Val Glu Ser Pro Lys Ala Ala Ala Leu Lys Gly Thr Lys
                485                 490                 495
Arg Lys Ala Gln Gln Pro Ala Asp Lys Ala Gly Thr Ser Glu Ser Lys
            500                 505                 510
Arg Pro Lys Thr Gly Gln Lys Pro Ser Lys Lys Leu Ser Thr Ser Ser
        515                 520                 525
Ala Ser Ala Thr Ser Ser Ser Glu Asp Ser Glu Ser Glu Asp Asp Ala
    530                 535                 540
Asp Ser Asp Ser Glu Ala Asp Thr Asp Glu Ser Ser Ser Ala Ser Asp
545                 550                 555                 560
Ser Ser Asp Ser Thr Ser Glu Pro Gln Pro Lys Ser Lys Ser Asp Pro
                565                 570                 575
Lys Gln Pro Ser Ala Gln Pro Lys Val Asp Lys Ala Val Asn Gly Gln
            580                 585                 590
Lys Pro Glu Leu Ser Lys Pro Arg Thr Pro Val Ser Lys Glu Gly Gly
        595                 600                 605
Asn Val Lys Asn Gly Gln Ser Gly Ala Lys Gln Lys Ser Lys Gln Val
    610                 615                 620
Lys Pro Ser Leu Pro Gln Val Gly Lys Asp Gly Lys Lys Glu Lys Ser
625                 630                 635                 640
Lys Leu Gly Ser Ala Pro Val Ser Lys Gly Lys Asn Ser Lys
                645                 650
```

<210> 39409
<211> 67
<212> PRT
<213> A.fumigatus

<400> 39409

```
Asn His Asn Ile Pro Asn Ser Leu Ile Thr Thr Val Glu Ala His Met
1               5                   10                  15
```

```
Pro Leu Ser Ala Phe Ser Pro Pro Ser Leu Glu His Arg Lys Ala Asp
            20                  25                  30
Gly Ser Asn Glu Lys Val Ala Asp Thr Asp Ile Val Arg Thr Asp Phe
        35                  40                  45
Gly Thr Gly Thr Ser Lys Leu Pro Ser Asn Lys Arg Tyr Asp Ser Cys
    50                  55                  60
Asn Ser Ser
65
```

<210> 39410
<211> 1088
<212> PRT
<213> A.fumigatus

<400> 39410

```
Tyr Arg Ile Gln Leu Ala Ala Leu His Thr Thr Val Thr Ser Ala Ser
1               5                   10                  15
Phe Phe Ala Ala Ala Thr Phe His Phe Ser Ser Thr Thr Leu Ser Ser
            20                  25                  30
Ala Ala His Val Ser Gln Ala Leu Leu Ser Thr Leu Asp Ala Ile Leu
        35                  40                  45
Gly Ser Thr Glu Ser Ser Arg Ala Ile Ala Ala Ile Ile Thr Leu Ile
    50                  55                  60
Arg Arg Glu Phe Arg Ser Pro Ser Ala Glu Ile Gly Thr Asp Asn Ile
65                  70                  75                  80
Gly Val Gly Asp Leu Leu Val Gly Thr Val Gly Phe Ala Met Leu Gln
                85                  90                  95
Arg Trp Gly Arg Lys Ser Thr Glu Arg His Met Arg Leu Asn Gly Gly
            100                 105                 110
Tyr Glu Thr Val Trp Asp Val Val Ile Leu Asp Asn Gly Ala Arg Ala
        115                 120                 125
Asp Val Ile Gly Thr His Pro Ile Glu Pro Ala Glu Tyr Ser Arg Ser
    130                 135                 140
Ala Leu Gly Ser Ala Thr Arg Arg Ser Ser Phe Ile Ser Pro Gly Asn
145                 150                 155                 160
Glu Glu Glu Arg Phe Asp Ala Val Gln Arg Pro Ser Ser Val Val Glu
                165                 170                 175
His Ala Glu Val Pro Glu Met Val Leu Pro Ala Ser Asp Gln Gln Val
            180                 185                 190
Ser Asp Glu Asp Val Arg Leu His Ile Met Lys Gln Leu Pro His Gly
        195                 200                 205
Cys Arg Ala Ser Ile Arg Ser Asp Val Val Thr Thr Arg Thr Ile Thr
    210                 215                 220
Val Asp Ile Tyr Asp Asp Asp Asn Ala Glu Leu Ala Ala Pro Pro Gly
225                 230                 235                 240
Met Met Met Ile Glu Glu Arg Phe His Asn Asp Arg Pro Asp Glu Asn
                245                 250                 255
Ser Gly Leu Leu Ser Thr Met Asn Gln Leu Pro Lys His Thr Val Val
            260                 265                 270
Phe Arg Thr Ala Phe Asn Lys Thr Gln Asn Ala Asp Val Arg Pro Ser
        275                 280                 285
Leu Arg Pro Glu Ala Phe Asp Ser Arg Glu Leu Glu Asn Pro Ile Ala
    290                 295                 300
Thr Lys Ser Leu Pro Ala Leu Pro Ser Thr Leu Leu Asp Thr Thr Thr
305                 310                 315                 320
Pro Thr Asp Asn Lys Asn Glu Ala Asp Ser Gln Ala Arg Ile Ser Asp
```

```
                325                 330                 335
Ser Arg Gly Leu Ser Gly Glu Gln Pro Ser Thr Thr Glu His Met Glu
            340                 345                 350
Ser Leu Glu Tyr Asp Lys Pro Arg Ser Arg Ala Ala Pro Glu Ser Ser
        355                 360                 365
Ser Glu Gly Phe Ser Ser Ala Gly Ala Ala Arg Asp Thr Arg Ser Gly
    370                 375                 380
Gly Gly Ala Lys Lys Ser Arg Glu Val Ser Ser Ser Gly Pro Val Asn
385                 390                 395                 400
Glu Leu Ser Thr Gly Ser Lys Gly Thr Phe Gly Lys Ala Ser Leu Thr
                405                 410                 415
Arg Leu Ala Gln Lys Val Lys Pro Ala Asn Val Glu Arg Asp Glu Thr
            420                 425                 430
Gly Gln Arg Ile Ala Gln Arg Ser Thr Leu Asp Lys Ala Gln Lys Phe
        435                 440                 445
Ser Lys Asn Gly Thr Gln Arg Asn Lys Met Gln Lys Gly Pro Leu Val
    450                 455                 460
Asp Lys Lys Ser Ala His His Asp Met Ser Thr Thr Pro Thr Ala Ala
465                 470                 475                 480
Glu Ser Ala Thr Lys Met Thr Gly Ser His Thr Asn Arg Thr Leu Leu
                485                 490                 495
Pro Val Ala Asn Arg Gly Val Pro Arg Ser Ala Leu His Asp Pro Arg
            500                 505                 510
Leu Arg Ile Ser Pro Ser Gln Thr Arg Gln Val Gln Thr Pro Ser Arg
        515                 520                 525
Ser Gln Arg Asp Ala Gln Pro Asp Tyr Phe Thr Val His Glu Val Asn
    530                 535                 540
Gln Glu Thr Phe Ile Thr Lys Ser Asp Ser Phe Ser Leu Arg Ser Ala
545                 550                 555                 560
Gly Thr Arg Ala Asn Ser Pro Ala Ala Thr Arg Thr His Val Arg Ser
                565                 570                 575
Ser Ser Ser Leu Ser Leu Thr Arg Ser Glu Thr Asp Met Ala Leu Ser
            580                 585                 590
Leu Ser Ala Asp Gly Arg Pro Thr Ser Ser Gly Trp Gln Gln Arg Thr
        595                 600                 605
Thr Ser Phe Ala Pro Ser Ile Tyr Ser Leu Ala Thr Ala Gly Ser Glu
    610                 615                 620
Thr Ser Leu Ile Leu Ala His Arg Ala Arg Lys Ser Ala Tyr Asp Asp
625                 630                 635                 640
Ile Asp Thr Ile Arg Ser Leu Thr Arg Asp Gly Arg Ile Pro Gly Ile
                645                 650                 655
Phe Pro Glu Gln His Phe Val Gln Asn Ile Arg Arg Phe Cys Arg Phe
            660                 665                 670
Ser Ser Ala Ser Tyr Gly Ser Asn Ala Leu Lys Val Met Gly Val Thr
        675                 680                 685
Arg Gln Thr Gln Ala Ile Pro His Leu Glu Ser Asp Asn Gln Glu His
    690                 695                 700
Ser Asp Phe Ser Val His Thr Gly Leu Pro Ala Ser Thr Ile Leu Leu
705                 710                 715                 720
Ser Ser Phe Val Asp Pro Ala Gly Gly Thr Asn Ala Ala Gly Glu Thr
                725                 730                 735
Asp Ser Gly Phe Pro Leu Val His Tyr Val Cys Leu Asp His Ala Ser
            740                 745                 750
Lys Ala Val Val Leu Thr Leu Arg Gly Thr Trp Gly Phe Glu Asp Val
        755                 760                 765
Leu Thr Asp Met Thr Cys Asp Tyr Asp Asp Leu Val Trp Gln Gly Arg
```

770 775 780
Ser Trp Lys Val His Lys Gly Met His Ala Ser Ala Lys Arg Leu Leu
785 790 795 800
Met Gly Gly Gly Gly Arg Val Met Ile Thr Ile Arg Thr Ala Leu Glu
805 810 815
Glu Phe Pro Asp Tyr Gly Val Val Leu Cys Gly His Ser Leu Gly Gly
820 825 830
Gly Val Ala Ala Leu Leu Ala Thr Met Ile Ser Ile Pro Asn Ser Glu
835 840 845
Gln Phe Gly Thr Ser Phe Val Thr Ala Thr Pro Gln Ser Ala Ala Arg
850 855 860
Arg Met Leu Leu Gly Asn Asn Asp Asp Glu Asp Glu Glu Ser Arg Leu
865 870 875 880
Pro Phe Tyr Leu Pro Thr Gly Arg Pro Ile His Val Tyr Ala Tyr Gly
885 890 895
Pro Pro Ser Ala Met Ser Pro Phe Leu Arg Arg Ala Thr Arg Gly Leu
900 905 910
Ile Thr Thr Ile Val Asn Gly Gln Asp Val Val Pro Ser Leu Ser Leu
915 920 925
Gly Ile Leu His Asp Met His Ala Val Ser Val Ala Phe Lys Ser Asp
930 935 940
Thr Ser Gly Thr Lys Ser His Val Arg Tyr Arg Val Trp Glu Gly Leu
945 950 955 960
Arg Gln Ser Ile Val Asn Lys Phe Tyr Val Asn Glu Thr Pro Met Leu
965 970 975
Leu His Ala Gly Asp Gly Leu Gly Glu Asp Ala Trp Ala Trp Lys Thr
980 985 990
Leu Lys Ala Leu Arg Glu Glu Met Cys Ala Pro Lys Leu Leu Pro Pro
995 1000 1005
Gly Glu Val Phe Val Val Lys Thr Met Arg Val Leu Gln Arg Asn Ala
1010 1015 1020
Phe Thr Ser Asp Phe Gly Gly Asp Gly Tyr Pro Met Leu Gly Arg Pro
1025 1030 1035 1040
Ala Thr Arg Val Gln Leu Lys Phe Ile Arg Asp Val Glu Ser Leu Phe
1045 1050 1055
Gly Glu Leu Arg Phe Gly Ser Gly Met Phe Ser Asp His Asn Pro Ala
1060 1065 1070
Arg Tyr Glu Ala Ser Leu Ala Ala Leu Ala Gln Gly Ile Leu Asp Asp
1075 1080 1085

<210> 39411
<211> 86
<212> PRT
<213> A.fumigatus

<400> 39411
Leu Leu Cys Thr Ala Leu Ser Ala Ser Ala Asp Leu Asn Phe Ala Ser
1 5 10 15
Ser Phe Leu Tyr Gln Ser Leu Lys Val Ser Thr Phe Cys Phe Leu His
20 25 30
Pro Ser Arg Thr Phe Thr Leu Arg Lys Asn Trp Ile Pro Ala Ile Leu
35 40 45
Thr Met Gly Lys Asp Asn Phe Ile Arg Gln Val Glu Asn Ser Ala Glu
50 55 60
Phe Lys Leu Leu Asp Lys Val Val Lys Asp Gln Val Thr Val Gln Asp
65 70 75 80

```
Ala Val Gln Glu Ser His
                85

<210> 39412
<211> 128
<212> PRT
<213> A.fumigatus

<400> 39412
Leu Arg Thr Lys Ser Gln Cys Lys Met Arg Ser Lys Lys Val Ile Asp
1               5                  10                  15
Met Thr Met Thr Ala Leu Ser Val His Gly Pro Ser Lys Gln Gly Gly
            20                  25                  30
Ile Gly Val Pro Asp Tyr Asn Ile Ser Leu Ala Val Met Glu Leu Ala
        35                  40                  45
Gln Arg Arg Glu Pro Ala Glu His Thr Lys Leu Ala Lys Phe Val Ser
    50                  55                  60
His Leu Gln Lys Gln Ile Ala Ile Asp Pro Ser Thr Asn Glu Pro Leu
65                  70                  75                  80
Thr Val Gln Arg Asp Ile Leu Trp Thr Asp Met Pro Ser Phe Gly Tyr
                85                  90                  95
Thr Glu Leu Glu Thr Trp Ser Glu Phe Gly Gly Asp Tyr Lys Gly Asn
            100                 105                 110
Thr Ser Cys His Ser Ser Ser Gln Asn Ala Asn Val Cys Arg Ser Leu
        115                 120                 125

<210> 39413
<211> 152
<212> PRT
<213> A.fumigatus

<400> 39413
Leu Val Asn Val Asp Leu Ser Val Ala Asn Val Ala Gln Arg Leu Ala
1               5                  10                  15
Asp Arg His Ala Arg Tyr Ser Lys Arg Met His Cys Met Asp Asp Arg
            20                  25                  30
Thr Asp Cys Ser Ser Asp Val Leu Leu Leu Leu Pro Leu Ser Ser Thr
        35                  40                  45
Phe Gly Thr Leu Phe Ser Gln Ile Asn Ser Thr Gln Asp Val His Leu
    50                  55                  60
Thr Glu Pro Ala Cys Thr Val Thr Asn Ser Leu Pro Ala Ala Thr Cys
65                  70                  75                  80
Ala Ile Tyr Thr Val Leu Ala Ile Pro Ile Leu Tyr Leu Leu Val Arg
                85                  90                  95
His Gly Arg Asp Gly Leu Leu Gly Trp Leu Phe Leu Phe Phe Phe Cys
            100                 105                 110
Thr Leu Arg Ile Ile Gly Gly Ala Leu Ala Val Asn Ser Pro Ser Thr
        115                 120                 125
Ala Ala Thr Val Ile Ser Ser Val Gly Leu Ser Pro Val Leu Leu Ala
    130                 135                 140
Thr Ala Gly Thr Leu Gln Glu Ala
145                 150

<210> 39414
<211> 82
<212> PRT
```

<213> A.fumigatus

<400> 39414
Val Pro Thr His Lys Tyr Ser Ile Asn Ala Asn Met Ile Ser Arg His
1 5 10 15
Tyr Arg Ile Gln Pro Leu His Lys Lys Met Glu Trp Val Ser Val Leu
20 25 30
Ala Tyr His Met Leu Val Val Ala Gly Val Ala Leu Thr Ala Ala Gly
35 40 45
Pro Val Lys Leu Gln Glu His Lys Gln Pro Leu Asp Lys Ala Ala Lys
50 55 60
Ile Ala Lys Glu Gly Ile Ala Ile Leu Ala Val Ala Trp Gly Val Leu
65 70 75 80
Val Val

<210> 39415
<211> 159
<212> PRT
<213> A.fumigatus

<400> 39415
Asp Glu Leu Asp Asp Ser Gly Asp Ile Lys Ile Tyr Gly Ser Cys Glu
1 5 10 15
Thr Phe His His Arg Gln Gln His His Ser Asn Pro Phe Pro Leu Gly
20 25 30
Ser Val Ser Pro Pro Tyr Tyr Arg Pro Lys His Gln Pro Leu Glu Met
35 40 45
Leu Phe Asp Met Lys Ser Val Val Leu Tyr Gly Leu Met Ala Leu Val
50 55 60
His Ala Ser Pro Leu Ser Asp Leu Ser Lys Arg Ala Lys Leu Gly Asp
65 70 75 80
Phe Gln Cys Pro Asp Asp Thr Leu Ser Glu His Asp Ile Arg Glu Ala
85 90 95
Leu His Glu Cys Arg Arg Leu Asp Asp Gly Ser Ile Gly Lys Tyr Pro
100 105 110
Ala Phe Phe Gly Asn Lys Ser Asn Asn Gln Lys Val Phe Gly Asn Ile
115 120 125
Pro Asp Gly Thr Asp Leu Arg Glu Phe Pro Ile Ile Val Gly Gly Val
130 135 140
Tyr Ser Gly Gly Lys Leu Arg Glu Arg Lys Asp Thr Glu Pro Ser
145 150 155

<210> 39416
<211> 157
<212> PRT
<213> A.fumigatus

<400> 39416
Cys Ser Ile Leu Val Leu Leu Leu Gly Ala Pro Ile Arg Pro Ala His
1 5 10 15
Ala Ser Gln Ile Gln Ser Val Glu Pro Gly Arg Asp Lys Asp Asp Lys
20 25 30
Asn Lys His Asp Lys Asp Glu Gly Asp Met Lys Ser Asn Asn Glu Glu
35 40 45
Arg Ser Val Gln Glu Thr Glu Thr Glu Val Glu Glu Pro Thr Gly His

```
    50                  55                  60
Ile Val Ser Asp Leu Thr Thr Arg Ser Lys Lys Arg Arg Leu Gly Ser
65                  70                  75                  80
Ala Thr Cys Thr Asp Gly Val Thr Leu Ser His Asp Asp Val Val Asn
                85                  90                  95
Ala Phe Arg Glu Cys Lys Lys Trp Asp Asp His Gly Arg Gly Gly Tyr
            100                 105                 110
Pro His Lys Phe Gly Asn Lys Ser Gly Asn Ser Gln Val Phe Glu Gly
        115                 120                 125
Ile Thr Lys Asp Leu Arg Glu Tyr Pro Ile Ile Gln Ser Gly Thr Trp
    130                 135                 140
Thr Gly Lys Ser Ser Thr Leu Ser Leu Trp Asp Ala Asp
145                 150                 155
```

<210> 39417
<211> 107
<212> PRT
<213> A.fumigatus

<400> 39417

```
Val Val Tyr Leu Leu Val Met Ala Ala Lys Phe Ile Pro Arg Gln Ala
1               5                   10                  15
Phe Pro Ser Tyr Ala Ser Ile Pro Arg Ser Tyr Tyr Leu Gly His His
            20                  25                  30
Lys Ala Gly Leu Lys Lys Met Gln Asn Met Leu Ser Ser Ile Asp Tyr
        35                  40                  45
Val Ile Glu Cys Arg Asp Tyr Arg Val Pro Ile Thr Ser Ile Asn Pro
    50                  55                  60
Met Phe Glu Glu Ala Leu Gly Lys Thr Arg Arg Leu Val Val Tyr Thr
65                  70                  75                  80
Lys Arg Asp Leu Gly Ala Glu Pro Arg Ser Ser Ala Gln Arg Thr Val
                85                  90                  95
Ser Pro Arg Ser Lys Phe Gly Pro Tyr Leu Ser
            100                 105
```

<210> 39418
<211> 269
<212> PRT
<213> A.fumigatus

<400> 39418

```
Val Gln Asp Arg Ser Leu Ala His Thr Cys His Asn Ala Asp Gly Trp
1               5                   10                  15
Phe Cys Met Gln Ala Glu Lys Ile Ile Lys Lys Phe Asp Ser Ser Ser
            20                  25                  30
Ala Val Phe Phe Val Ser Ser Ser Ser Arg Ala Asp Val Ser Ser Ile
        35                  40                  45
Leu Ala His Leu Arg Asn Asp Ala Glu Gly Pro Asp Lys Leu Val Gly
    50                  55                  60
Cys Arg Val Met Val Val Gly Met Pro Asn Val Gly Lys Ser Thr Leu
65                  70                  75                  80
Ile Asn Asn Leu Arg Asn Gln Gly Val Lys Arg Ala Lys Ala Val Gln
                85                  90                  95
Thr Gly Gly Gln Pro Gly Ile Thr Arg Lys Ile Gly Thr Pro Val Lys
            100                 105                 110
Ile Ile Glu Arg Asp Asn Gly Ala His Val Tyr Val Leu Asp Thr Pro
```

```
        115                 120                 125
Gly Val Phe Met Pro Tyr Val Pro Asp Ala Glu Lys Met Leu Lys Leu
    130                 135                 140
Ala Leu Cys Gly Cys Val Lys Asp Ser Val Ile Ser Pro Val Thr Leu
145                 150                 155                 160
Ala Asp Tyr Leu Leu Tyr His Ile Asn Leu His Asn Pro Gly Gln Tyr
                165                 170                 175
Glu Arg Trp Ser Gln Pro Thr Asn Glu Ile Ser Pro Leu Leu Asp Ser
            180                 185                 190
Phe Ala Arg Gln Thr Gly Leu Leu Ala Lys Gly Gly Ile Pro Asn Ile
        195                 200                 205
Asp Leu Ala Ala Leu His Leu Ile Gln Lys Trp Arg Ser Gly Glu Leu
    210                 215                 220
Gly Arg Phe Met Leu Asp Asp Leu Gln Ala Glu Gln Arg Arg Ile Asp
225                 230                 235                 240
Glu Gly Ile Glu Asn Asp Val Gly Ile Ser Ile Ser Gln Ala Leu Lys
                245                 250                 255
Ala Glu Arg Met Ser Arg Lys Gln Pro Ala Ser Asn Ser
            260                 265
```

<210> 39419
<211> 465
<212> PRT
<213> A.fumigatus

<400> 39419

```
Ser Ser Ala Arg Phe Pro Ser Ser Pro Val Val Lys Thr Val Asn Trp
1               5                   10                  15
Arg Asp Ala Gly Glu Ala Gln Gln Ala Val Glu Ile Leu Pro Lys Trp
            20                  25                  30
Thr Glu Ile Asp Val Asp Asp Ala Leu Glu Leu Leu Gly Pro Thr Phe
        35                  40                  45
Asp Asn Thr Thr Val Arg Ser Tyr Ala Val Asp Arg Leu Arg Lys Ala
    50                  55                  60
Asp Asp Glu Glu Leu Leu Leu Tyr Leu Leu Gln Leu Val Gln Ala Leu
65                  70                  75                  80
Lys Tyr Glu Glu Asn Ser Arg Gly Ala Ala His Asp Ser Ser Leu Ala
                85                  90                  95
Asn Phe Leu Ile Thr Arg Ala Ala Asn Asn Phe Lys Leu Gly Ser Tyr
            100                 105                 110
Leu His Trp Tyr Leu Met Val Glu Cys Asp Asp Thr Ser Pro Gly Thr
        115                 120                 125
Leu Ser Thr Gln Arg Arg Leu Phe Ala Arg Val Glu Tyr Tyr Phe Met
    130                 135                 140
Ala Glu Leu Glu Gln Val Ser Pro Glu His Arg Lys Thr Leu Leu Arg
145                 150                 155                 160
Gln Gly Glu Leu Val Ala Val Leu Thr Lys Ile Ala Lys Asp Ile Arg
                165                 170                 175
Phe Ala Arg Glu Thr Arg Pro Leu Lys Ile Glu Lys Leu Lys Lys Tyr
            180                 185                 190
Leu Lys Asp Pro Lys Asn Glu Leu Val His Ile Asp Pro Pro Leu Pro
        195                 200                 205
Leu Pro Leu Asp Pro Glu Val Ser Val Thr Gly Cys Phe Pro Glu Glu
    210                 215                 220
Ser Asn Val Phe Lys Ser Ser Leu Ser Pro Leu His Ile Thr Phe Lys
225                 230                 235                 240
```

Thr Ser Glu Gly Arg Lys Tyr Pro Ile Leu Phe Lys Val Gly Asp Asp
245 250 255
Leu Arg Gln Asp Gln Leu Val Ile Gln Ile Ile Ile Leu Met Asp Arg
260 265 270
Leu Leu Gln Lys Glu Asn Leu Asp Leu Lys Leu Thr Pro Tyr Arg Ile
275 280 285
Leu Ala Thr Asn Ala Thr Ala Gly Ala Val Gln Phe Ile Pro Ser Thr
290 295 300
Ser Leu Ser Ala Val Ser Ala Lys Tyr Lys Ser Val Leu Ala Tyr Leu
305 310 315 320
Gln Ala Asn Asn Pro Asp Glu Asn Glu Pro Leu Gly Val Arg Lys Glu
325 330 335
Thr Met Asp Thr Tyr Val Lys Ser Cys Ala Gly Tyr Cys Val Ile Thr
340 345 350
Tyr Leu Leu Gly Val Gly Asp Arg His Leu Glu Asn Leu Leu Leu Ala
355 360 365
Pro Asp Gly His Phe Phe His Ala Asp Phe Gly Phe Ile Leu Gly Arg
370 375 380
Asp Pro Lys Pro Phe Ala Pro Met Met Lys Leu Cys Lys Glu Met Val
385 390 395 400
Glu Gly Met Gly Gly Thr Thr Ser Pro Gln Tyr Leu Gln Phe Lys Gln
405 410 415
Tyr Cys Phe Thr Ala Tyr Thr Thr Leu Arg Lys Ser Ala Asn Leu Ile
420 425 430
Leu Asn Leu Phe Ser Leu Met Val Asp Ala Asn Ile Pro Asp Ile Arg
435 440 445
Val Glu Pro Asp Lys Ala Val Phe Lys Val Lys Glu Arg Phe Thr Ser
450 455 460
Arg
465

<210> 39420
<211> 252
<212> PRT
<213> A.fumigatus

<400> 39420
Ala Arg Asn Ser Glu Lys Ala Gln Ser Met Leu Phe Arg Phe Arg Ala
1 5 10 15
Gln Gln Ala Ala Asp Leu Gly Ile Ile Asp Ile Gly Arg Thr Arg Arg
20 25 30
Pro Lys Ala Ile Thr Ser Val Asp Ser Ile Pro Ser Cys Glu Lys Trp
35 40 45
Arg Gly Gln Val Leu Lys Glu Ile Ser Arg Lys Val Ser Arg Ile Gln
50 55 60
Glu Pro Ser Leu Ser Asp Tyr Gln Ile Arg Asp Leu Asn Asp Glu Ile
65 70 75 80
Asn Lys Leu Met Arg Glu Lys Trp Ala Trp Glu Met Gln Ile Arg Asn
85 90 95
Leu Gly Gly Pro Asn Tyr Met Arg Gly Ser Gly Arg Val Tyr Asp Asp
100 105 110
Glu Gly Arg Glu Ile Pro Gly Gly Gly Lys Gly Tyr Arg Tyr Phe Gly
115 120 125
Arg Ala Arg Glu Leu Pro Gly Val Lys Glu Met Phe Glu Ala Ala Ala
130 135 140
Arg Arg Gly Arg Arg Pro Pro Glu Glu Glu Glu Glu Glu Glu Gly Lys

```
145                 150                 155                 160
Gly Arg Gly Gly Asp Ile Ala Thr Lys Lys Val Asp Ala Asn Tyr Phe
                165                 170                 175
Gly Tyr Gly Leu Asp Glu Glu Asp Gly Ser Leu Leu Ala Tyr Glu Arg
            180                 185                 190
Gln Lys Glu Lys Glu Ala Val Glu Tyr Leu Arg Gly Gln Lys Asp Ser
        195                 200                 205
Asp Ala Glu Asp Gly Trp Glu Pro Leu Pro Gly Asp Ala Gly Asp Gly
    210                 215                 220
Val Glu Trp Arg Leu Pro Thr Leu Glu Glu Val Gln Glu Glu Leu Val
225                 230                 235                 240
Asp Arg Arg Arg Arg Arg Leu Leu Asp Lys Ile Ser
                245                 250
```

<210> 39421
<211> 103
<212> PRT
<213> A.fumigatus

<400> 39421

```
Thr Gly Gly Glu Asn Ile Ser Ser Val Ala Leu Glu Ser Met Leu Val
1               5                   10                  15
Thr His Pro Asp Ile Leu Glu Ala Gly Val Val Ala Val Pro Asp Ala
            20                  25                  30
His Trp Gly Glu Arg Pro Lys Ala Phe Val Thr Val Lys Gln Gly Lys
        35                  40                  45
Gln Ile Asp Gly Gln Glu Val Ile Ala Trp Ala Lys Asn Asn Ser Ala
    50                  55                  60
Ile Ser Lys Phe Met Val Pro Arg Glu Val Glu Val Val Ala Glu Leu
65                  70                  75                  80
Pro Lys Thr Ser Thr Gly Lys Val Arg Lys Asn Val Leu Arg Glu Trp
                85                  90                  95
Ala Lys Arg Gly Ser Arg Thr
            100
```

<210> 39422
<211> 252
<212> PRT
<213> A.fumigatus

<400> 39422

```
Asn Ala Ser Asp Arg Phe Pro Leu Pro Leu Leu Thr Ser Ile Ser Gln
1               5                   10                  15
Leu Lys Leu Asn Gly Val Val Gln Val Thr Asp Arg Ser Ile Leu Ser
            20                  25                  30
Phe Ala Glu Asn Cys Pro Ala Ile Leu Glu Ile Asp Leu His Asp Cys
        35                  40                  45
Lys Leu Val Thr Asn Pro Ser Val Thr Ser Leu Met Thr Thr Leu Arg
    50                  55                  60
Ser Leu Arg Glu Leu Arg Leu Ala His Cys Val Glu Ile Ser Asp Ala
65                  70                  75                  80
Ala Phe Leu Asn Leu Pro Glu Ser Leu Ser Phe Asp Ser Leu Arg Ile
                85                  90                  95
Leu Asp Leu Thr Ala Cys Glu Asn Val Lys Asp Asp Ala Val Glu Arg
            100                 105                 110
Ile Val Ser Ala Ala Pro Arg Leu Arg Asn Leu Val Leu Ala Lys Cys
```

```
        115                 120                 125
Arg Phe Ile Thr Asp Arg Ala Val Gln Ala Ile Cys Lys Leu Gly Lys
    130                 135                 140
Asn Leu His Tyr Val His Leu Gly His Cys Ser Asn Ile Thr Asp Pro
145                 150                 155                 160
Ala Val Ile Gln Leu Val Lys Ser Cys Asn Arg Ile Arg Tyr Ile Asp
                165                 170                 175
Leu Ala Cys Cys Asn Arg Leu Thr Asp Asn Ser Val Gln Gln Leu Ala
            180                 185                 190
Thr Leu Pro Lys Leu Arg Arg Ile Gly Leu Val Lys Cys Gln Leu Ile
        195                 200                 205
Thr Asp Gln Ser Ile Leu Ala Leu Ala Arg Pro Lys Val Ser Pro Asp
    210                 215                 220
Pro Leu Gly Thr Ser Ser Leu Glu Arg Val His Leu Ser Tyr Cys Val
225                 230                 235                 240
Asn Leu Thr Val Pro Val Ser Phe Arg Thr Ser Val
                245                 250
```

<210> 39423
<211> 153
<212> PRT
<213> A.fumigatus

<400> 39423

```
His Gln Leu Ala Val Asn Tyr Arg Leu Lys Glu Asp Asp Ile Ala Tyr
1               5                   10                  15
Ile Phe Thr His Ser Asp Ala Asp Val Ile Ile Val Asp Lys Glu Tyr
            20                  25                  30
Leu Pro Leu Leu Gln Ala Tyr Arg Ala Ala Lys Pro Glu Ile Pro Val
        35                  40                  45
Ile Val Asp Thr Asp Thr Asp Ser Thr Glu Gly Gln Leu Ser Gly Pro
    50                  55                  60
Phe Asp Glu Ala Val Leu Leu Gly Leu Lys Tyr Asp Ala Asp Thr Gly
65                  70                  75                  80
Ala Lys Gly Trp Asp Gly Leu Glu Ser Gln Ala Ala Ser Glu Asp Asp
                85                  90                  95
Val Ile Ala Leu Ala Tyr Thr Ser Gly Thr Thr Ala Arg Pro Lys Gly
            100                 105                 110
Val Glu Phe Thr His Arg Gly Cys Tyr Leu Ala Ala Leu Ala Asn Val
        115                 120                 125
Ile Glu Ser Gly Leu Asn Ser Gln Gln Gly Arg Cys Arg Tyr Leu Trp
    130                 135                 140
Thr Leu Pro Met Phe His Ala Met Gly
145                 150
```

<210> 39424
<211> 238
<212> PRT
<213> A.fumigatus

<400> 39424

```
Ser Ala Val Ile Arg Leu Thr Leu Pro Gly Trp Thr Phe Pro Trp Ala
1               5                   10                  15
Val Thr Ala Val Arg Gly Thr His Tyr Cys Leu Arg Lys Ile Asp Tyr
            20                  25                  30
Pro Glu Ile Trp Arg Leu Leu Lys Gln Glu His Ile Thr His Phe Asn
```

```
        35                  40                  45
Ala Ala Pro Thr Val Asn Thr Leu Leu Cys Ala Ala Asn Glu Ala Glu
    50                  55                  60
Arg Leu Pro Arg Pro Val Gln Val Thr Val Ala Ala Ser Pro Pro Thr
65                  70                  75                  80
Pro His Leu Phe Glu Gln Met Thr Asn Leu Asn Leu His Pro Val His
                85                  90                  95
Val Tyr Gly Met Thr Glu Thr Tyr Gly Pro Ile Thr Lys Gly Tyr Tyr
            100                 105                 110
Met Pro Gln Trp Asp Gln Leu Pro Ala Glu Glu Lys Tyr Lys Lys Met
        115                 120                 125
Ala Arg Gln Gly His Gly Phe Val Thr Ser Leu Pro Val Arg Val Ile
    130                 135                 140
Lys Thr Asp Val Pro Glu Gly Thr Ile Ile Asp Val Gln Arg Asp Gly
145                 150                 155                 160
Lys Glu Ile Gly Glu Ile Ala Phe Val Gly Asn Ile Cys Ser Arg Gly
                165                 170                 175
Tyr Tyr Lys Asp Pro Glu Ala Thr Arg Lys Leu Phe Ala Gly Gly Val
            180                 185                 190
Leu His Ser Gly Asp Leu Ala Val Trp His Pro Asp Gly Ala Val Gln
        195                 200                 205
Ile Leu Asp Arg Ala Lys Asp Ile Ile Ile Ser Gly Arg Gln Tyr Leu
    210                 215                 220
Ser Ser Val Leu Phe Phe Phe Pro Val His Ser Ser Gln Cys
225                 230                 235

<210> 39425
<211> 108
<212> PRT
<213> A.fumigatus

<400> 39425
Glu Val Gln Arg Arg Asp Trp Asn His Gln Phe Leu Phe Ala Ser His
1               5                   10                  15
Arg Pro Ser Thr Asn His Pro Ser Leu Trp Gln Pro Pro Pro Thr Leu
            20                  25                  30
Tyr Cys Ala Asp Ser Leu Phe Ser Ser Arg Pro Ile Lys Gln Leu Ala
        35                  40                  45
Leu Trp Val Pro Ser Arg Asp Pro Thr His Pro Pro Tyr Leu Lys Phe
    50                  55                  60
Ser Phe Ser His Ile Thr Thr Gln Arg Ile Asp Arg Leu Asp Asn Ala
65                  70                  75                  80
Thr Tyr Ser Glu His Lys Ile Ser Ile Thr Pro Pro Arg Thr Ser Phe
                85                  90                  95
Pro Pro Arg Ser Ser Val Cys Arg Phe Pro Gly Gln
            100                 105

<210> 39426
<211> 286
<212> PRT
<213> A.fumigatus

<400> 39426
Ile Ala Tyr Leu Met Leu Leu Glu Asn Leu Asp Gln Thr Thr Leu Ile
1               5                   10                  15
Thr Arg Pro Pro Gln Ala Ser His Pro Leu Ser Arg Met Pro Arg Ser
```

```
            20                  25                  30
Arg Gln Pro Leu Arg Phe Ser Ser Glu Val Pro Ser Glu Ser Ser Ser
        35                  40                  45
Ser Thr Ser Pro Asp Arg Thr Val Asp Asp Asp Thr Asp Phe Phe Met
    50                  55                  60
Ala Gln Ala Asn Asp Ser Gln Ser Ser Val Gly Val Gly Asn Phe Arg
65                  70                  75                  80
Glu Pro Arg Asp Gln Gly Pro Arg Asn Thr Val Ile Pro Pro Ile Gly
                85                  90                  95
Arg Leu Pro Pro Glu Leu Leu Ile Ser Ile Phe Ala Lys Leu Ser Ser
            100                 105                 110
Thr Ala Asp Leu Leu Ser Cys Met Leu Val Cys Arg Gly Trp Ala Ala
        115                 120                 125
Asn Cys Val Ala Ile Leu Trp His Arg Pro Ser Cys Asn Asn Trp Asp
    130                 135                 140
Asn Leu Lys Ser Val Thr Ala Ser Val Gly Lys Pro Asp Gly Leu Phe
145                 150                 155                 160
Ala Tyr Ser Glu Leu Ile Lys Arg Leu Asn Leu Ser Ala Leu Thr Glu
                165                 170                 175
Asp Val Ser Asp Gly Thr Val Val Pro Phe Ala Gln Cys Lys Arg Ile
            180                 185                 190
Glu Arg Leu Thr Leu Thr Asn Cys Ser Lys Leu Thr Asp Lys Gly Val
        195                 200                 205
Ser Asp Leu Val Glu Gly Asn Arg His Leu Gln Ala Leu Asp Val Ser
    210                 215                 220
Asp Leu Arg Tyr Leu Thr Asp His Thr Leu Tyr Thr Val Ala Arg Asn
225                 230                 235                 240
Cys Pro Arg Leu Gln Gly Leu Asn Ile Thr Gly Cys Ile Arg Val Thr
                245                 250                 255
Asp Asp Ser Leu Ile Val Ile Ser Gln Asn Cys Arg Gln Ile Lys Arg
            260                 265                 270
Val Ser Phe Lys Met Leu Leu Ile Asp Ser Arg Cys Leu Cys
        275                 280                 285
```

<210> 39427
<211> 113
<212> PRT
<213> A.fumigatus

<400> 39427

```
Gly Ile His Ala Leu Leu Asn Asn Cys Pro Arg Leu Thr His Leu Ser
1               5                   10                  15
Leu Thr Gly Val Gln Ala Phe Leu Asp Pro Ala Val Thr Gln Phe Cys
            20                  25                  30
Arg Glu Ala Pro Pro Glu Phe Thr Gln Gln Gln Arg Glu Val Phe Cys
        35                  40                  45
Val Phe Ser Gly Glu Gly Val Asn Arg Leu Arg Asp Tyr Leu Asn Arg
    50                  55                  60
Ser Pro Asp Pro Pro Arg Glu Met Thr Glu Ala Thr Met Tyr Asp Asp
65                  70                  75                  80
Asp Glu Glu Leu Asp Glu Asp Glu Gly Gln Val Thr Gly Leu Met His
                85                  90                  95
Ala Thr Val Ile Asn Asp Glu Asp Tyr Ile Asp Ile Gly His Ala His
            100                 105                 110
Gly
```

<210> 39428
<211> 192
<212> PRT
<213> A.fumigatus

<400> 39428
Tyr Pro Ser Ser Leu Leu Pro Leu Thr Ile Glu Met Ile Gln Tyr Leu
1 5 10 15
Gly Cys Leu Leu Gln Val Arg Ile Ile Ala Cys His His Arg Leu Gly
20 25 30
Ser Ser Gly Ser His Arg Gly Leu Val Ser Ile Val Gly Lys Met Ser
35 40 45
Arg Phe Ser Ala Cys His Gln Lys Gly Ala Gly Pro Trp Ile Pro Ser
50 55 60
Thr Ala Leu Ala Ile Ser Tyr Ser Gln Trp Asp Ser Thr Ser Ala Asp
65 70 75 80
Thr Gly His Val Arg Leu Pro Leu Phe Ala His Ser Arg Arg Thr Phe
85 90 95
Phe Leu Thr Phe Pro Val Leu Val Leu Gly Ser Ser Ala Thr Thr Ser
100 105 110
Thr Ser Arg Gly Thr Met Asn Leu Leu Ile Ala Leu Leu Phe Leu Ala
115 120 125
His Ala Ile Thr Ser Cys Pro Ser Ile Cys Phe Pro Cys Phe Thr Val
130 135 140
Thr Asn Ala Leu Gly Arg Ser Pro Gln Cys Ala Ser Gly Thr Ala Thr
145 150 155 160
Thr Pro Ala Ser Arg Met Ser Gly Trp Val Thr Ser Ile Asp Ser Arg
165 170 175
Ala Thr Asp Glu Met Phe Ser Pro Pro Val Gln Leu Trp Ser Ala Leu
180 185 190

<210> 39429
<211> 135
<212> PRT
<213> A.fumigatus

<400> 39429
Ala Ser Ala Gln Tyr Thr Asp Ser Thr Val Ser Lys Tyr Trp Cys Glu
1 5 10 15
Pro Gly Arg Asn Ser Arg Lys Met Ala Glu Ser Thr Gly Arg Phe Pro
20 25 30
Pro Thr Pro Met Asp His Ser Ala Leu Lys Thr His Thr Ala Ala Lys
35 40 45
Val Gly Glu Pro Ala Ala Thr Ser Pro Asn Thr Ala Val Arg Pro Met
50 55 60
Val Arg Leu Lys Ala Gln Arg Arg Pro Lys Ile Ser Gln Pro Lys Pro
65 70 75 80
Gln Asn Arg Ala Pro Met Ser Arg Pro Ile Phe Trp Ala Arg Val Lys
85 90 95
Asn Gly Gly Leu Glu Met Trp Asn Ser Asp Val Thr Gly Pro Arg Met
100 105 110
Ser Glu Val Thr Ile Gly Gln Arg Leu Ser Leu Ala Gln Pro Lys Pro
115 120 125
Met Thr Ile Lys Ser Cys His
130 135

<210> 39430
<211> 75
<212> PRT
<213> A.fumigatus

<400> 39430
Thr Lys Leu Thr Met Gln Ala Leu Ile Leu Gly Ser Arg Gly Thr Cys
1 5 10 15
Leu Val Ile Ile Trp Leu Ile Lys Val Thr Phe Tyr Asp Tyr Asp His
20 25 30
Asp Thr His Asp Gln Met Arg Leu Lys Ser Gly Ile Glu Thr Ser Cys
35 40 45
Gly Pro Lys Ser Lys Arg Met Glu Ser Ile Gln Leu Glu Asn Val Val
50 55 60
Gly Met Tyr Gly Thr Leu Ile Ile Asp Arg Asp
65 70 75

<210> 39431
<211> 297
<212> PRT
<213> A.fumigatus

<400> 39431
Asp Pro His Leu Tyr Asn Val Asn Gln Ala Asn Gly Ala Lys Asn Glu
1 5 10 15
Asn Gly Thr Leu Pro Arg Ile Lys Ile Ala Lys Phe Asp Gly Phe Ser
20 25 30
Gln Thr Pro Arg Leu Leu Gln Glu Ile Leu Thr Trp Phe Thr Gly Leu
35 40 45
Glu His Phe Ala Phe Thr Tyr Ile Tyr Asn Arg Ser Tyr Ala Trp Tyr
50 55 60
Tyr Arg Trp Asn Tyr Ser Asn Ile Gly Ala Ala Leu Asp Arg His Lys
65 70 75 80
Glu Thr Leu Lys Ser Ile Leu Ile Gln Leu Phe Gly Tyr Ser Arg Ile
85 90 95
Gly Ser Phe Asp Leu Arg Ser Tyr Lys Ser Leu Arg Val Leu Glu Leu
100 105 110
Ser Leu Gln Asn Ile Val Val Glu Ser Pro Glu Ala Ala Ala Thr Lys
115 120 125
Leu Leu Ala Pro Asn Leu Glu Leu Leu Val Leu Asn Phe Gly Thr Val
130 135 140
Asp Arg Lys Lys Ala Lys Tyr Asn Cys Ile Glu Lys Arg Asp Glu Glu
145 150 155 160
Trp Leu Val Gln Phe Gly Glu His Ala Ser Lys Ile Arg Lys Ser Leu
165 170 175
Pro Arg Val His Ala Lys Ile Pro Ala Tyr Ala Phe Arg Gly Thr Glu
180 185 190
Thr Glu Leu Trp Asp Ala Arg Cys Thr Phe Glu Asp Leu Asp Asn Ile
195 200 205
Gln Asp Glu Leu Gln Gly Tyr Gly Ile Asp Phe Thr Tyr Asn Asp Pro
210 215 220
Pro Val Ser Glu Glu Glu Phe Arg Glu Trp Ile Arg Asp Lys Asp Glu
225 230 235 240
Met Asp Leu Leu Gly Gly Leu Trp Arg Tyr Met Asn Arg Tyr Ala Ala
245 250 255

```
Tyr His Ser Asp Glu Ser Asp Ser Gly Phe Glu Ser Asn Ala Leu Asp
            260                 265                 270
Thr Lys Asp His Asp Glu Met Ala Gln Gln Ser Thr Asp Lys Leu Asp
        275                 280                 285
Thr Glu Val Glu Glu Glu Ala Gln Ile
    290                 295
```

<210> 39432
<211> 278
<212> PRT
<213> A.fumigatus

<400> 39432

```
Ser Ile Ile Arg Gln Asn Ser Lys Val Ile Arg Ser Ser Ser Ser Met
1               5                   10                  15
Asp Pro Asn Asp Ile Asn Ile Leu Ala Asp Phe Leu Ala Phe Asn Gln
            20                  25                  30
Ile Pro Ser Thr Phe Pro Pro Ser Asp Ala Ala Asp Val Leu Val Leu
        35                  40                  45
Cys Val Ser Ala Ile Leu Pro Val Ala Glu Lys Val Phe Ala His Leu
    50                  55                  60
Glu Lys Asn Pro Thr Ala Ile Lys Thr Leu Val Leu Cys Gly Gly Ile
65                  70                  75                  80
Gly His Ser Thr Pro His Leu Tyr Glu Ala Ile Ala Asn Asp Pro Arg
                85                  90                  95
Tyr Ala His Leu Leu Pro Glu Ile Asp Gly Leu Pro Glu Ala Gln Val
            100                 105                 110
Leu His His Ile Phe Arg Gln Cys Phe Asp Ala Pro Arg Ile Leu Ser
        115                 120                 125
Ser Cys Arg Val Leu Ile Glu Asp Arg Ser Thr Asn Cys Gly Ala Asn
    130                 135                 140
Ala Ile Glu Thr Lys Arg Leu Leu Glu Val Asn Gly Ile Cys Pro Glu
145                 150                 155                 160
Ser Met Leu Ile Val Gln Asp Pro Thr Met Ser Arg Arg Thr Val Ala
                165                 170                 175
Ser Phe Glu Lys Ala Phe Ser Gly Gln Arg Thr Leu Arg Phe Thr Ser
            180                 185                 190
Trp Pro Thr Phe Val Pro Lys Val Arg Leu Glu Gly Gly Arg Leu Val
        195                 200                 205
Tyr Asp Glu Ser Ala Gly Ile Glu Ala Ser Arg Leu Trp Arg Leu Pro
    210                 215                 220
Arg Phe Leu Gly Leu Val Met Gly Glu Ile Pro Arg Leu Arg Asp Asp
225                 230                 235                 240
Glu Glu Gly Tyr Gly Pro Lys Gly Lys Gly Phe Ile Val His Val Asp
                245                 250                 255
Val Pro Asp Glu Val Glu Glu Ala Trp Lys Arg Ile Lys Asp Ala Glu
            260                 265                 270
Met Glu Trp Glu Arg Arg
        275
```

<210> 39433
<211> 174
<212> PRT
<213> A.fumigatus

<400> 39433

```
Thr Ala Asn Arg Trp Phe Ser Val Thr Met Gly Thr Gly Ile Val Ser
1               5                  10                  15
Ile Leu Leu Asn Thr Leu Pro Tyr Asn Ala Gln Trp Leu Tyr Trp Ile
            20                  25                  30
Ser Val Val Ile Phe Ala Ile Asn Val Leu Leu Phe Ile Thr Gly Cys
        35                  40                  45
Ile Ile Ser Phe Leu Arg Tyr Thr Leu Tyr Pro Glu Ile Phe Gly Ala
    50                  55                  60
Met Ile Val His Ser Val Gln Ser Met Phe Ile Gly Thr Phe Pro Met
65                  70                  75                  80
Gly Leu Asn Thr Ile Ile Asn Met Cys Cys Phe Val Cys Val Pro Ala
                85                  90                  95
Trp Gly Glu Trp Thr Arg Asn Phe Ala Trp Gly Leu Trp Ile Phe Asp
            100                 105                 110
Ala Ile Leu Ser Val Val Thr Ala Leu Ser Leu Pro Phe Leu Leu Tyr
        115                 120                 125
Val Phe Pro Leu Phe Gln Thr Tyr Pro Thr Val Thr Leu Lys Ser Tyr
    130                 135                 140
Ser Met Ala His Gly Asn Glu Thr Gln Leu Ser Ser Met Thr Ala Ile
145                 150                 155                 160
Trp Leu Leu Pro Ile Val Ser Cys Ile Val Ala Ala Ser Ser
                165                 170
```

<210> 39434
<211> 84
<212> PRT
<213> A.fumigatus

<400> 39434

```
Gln Ala Ser Gln Arg Ile Phe Gln Ser His Val Asp Lys Asp Leu Asp
1               5                  10                  15
Ile Val Thr Phe His Ile His Ile Ser Val Ala Cys Lys Tyr Ser Ser
            20                  25                  30
Phe Phe Tyr Pro Ala Val Ile Trp Ser Gly Val Arg Ser Thr Gly Asp
        35                  40                  45
Val Val Asn Leu Pro Asp Tyr Glu Ser Asp Thr Phe Gly Leu Tyr Leu
    50                  55                  60
Gln Trp Cys His Ala Asn Ile His Pro Val Ser Glu Glu Ser Glu Glu
65                  70                  75                  80
Lys Pro Glu Tyr
```

<210> 39435
<211> 355
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (353)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39435

```
Ile Lys Met Ala Asp Asp His Asp Lys Leu Asn Asp Tyr Arg Leu Asn
1               5                  10                  15
Ala Ala Thr Leu Asn Thr Ala Ile Gln Ser Ile Gly Met Gly Ala Tyr
```

```
            20                  25                  30
Gln Trp Gln Leu Phe Ile Val Ile Gly Phe Gly Trp Ala Ser Asp Asn
        35                  40                  45
Leu Trp Pro Ile Val Thr Ser Leu Ile Leu Gly Pro Val Thr Ser Glu
    50                  55                  60
Phe His Ile Ser Ser Pro Pro Phe Leu Thr Leu Ala Gln Asn Ile Gly
65                  70                  75                  80
Leu Leu Ile Gly Ala Leu Phe Trp Gly Phe Gly Cys Asp Ile Phe Gly
                85                  90                  95
Arg Arg Trp Ala Phe Asn Leu Thr Ile Gly Leu Thr Ala Val Phe Gly
            100                 105                 110
Leu Val Ala Ala Gly Ser Pro Thr Phe Ala Ala Val Cys Val Phe Asn
        115                 120                 125
Ala Leu Trp Ser Ile Gly Val Gly Gly Asn Leu Pro Val Asp Ser Ala
    130                 135                 140
Ile Phe Leu Glu Phe Leu Pro Gly Ser His Gln Tyr Leu Leu Thr Val
145                 150                 155                 160
Leu Ser Val Tyr Trp Ala Leu Ala Gln Leu Leu Ala Asn Leu Ile Ala
                165                 170                 175
Trp Pro Ile Leu Gly Asn Leu Thr Cys Pro Asp Glu Glu Thr Cys Thr
            180                 185                 190
Arg Ala Asn Asn Met Gly Trp Arg Tyr Phe Leu Ile Ala Met Gly Gly
        195                 200                 205
Ile Ala Ala Val Met Cys Leu Leu Arg Trp Thr Cys Phe Thr Leu Tyr
    210                 215                 220
Glu Ser Pro Lys Phe Leu Met Gly Lys Gly Arg Tyr Glu Asp Ala Val
225                 230                 235                 240
Ala Val Val His Glu Val Ala Arg Arg Asn Gly Ser Ser Ala Ser Leu
                245                 250                 255
Ser Val Asp Asp Leu Ile Thr Pro Glu Thr Ser Ala Glu Gln Pro Pro
            260                 265                 270
Thr Val Gly Thr Asn Val Leu Ile Arg His Arg Leu Asp His Leu Thr
        275                 280                 285
Leu Ser His Ile Arg Ala Leu Phe Asp Thr Pro Gly Arg Ala Cys Ser
    290                 295                 300
Thr Ser Leu Leu Ile Val Val Trp Gly Leu Ile Gly Leu Gly Phe Pro
305                 310                 315                 320
Leu Tyr Asn Ala Phe Leu Pro His Ile Gln Gln Thr Lys Ala Ala Glu
                325                 330                 335
Phe Gly Asp Gly Ser Thr Gly Ser Glu Leu Thr Gly Leu Pro Asp His
            340                 345                 350
Xaa Arg Arg
        355
```

<210> 39436
<211> 168
<212> PRT
<213> A.fumigatus

<400> 39436

```
Leu Leu Ile Ser Thr Ser Leu Val Asn Ile Ser Ser Thr Leu Ile Ser
1               5                   10                  15
Arg Leu Ser Phe Asp Ser Ser Ile Cys Met Val Phe Ile Lys Val Tyr
            20                  25                  30
Asp Phe Arg Arg Gly Cys Glu Trp Val Arg Thr Phe Ala Asp Pro Leu
        35                  40                  45
```

```
His His Ile Val Ser Asp Val Phe His Thr Gly Ser Pro Asp Ser Ala
    50                  55                  60
Leu Trp Glu Phe Lys His Gly Asn Gly Asn Phe Lys Arg Gly Asp Leu
65                  70                  75                  80
Val Gly Leu Arg Glu Ile Lys Arg Arg Ala Ser Arg His Ala Leu Ile
                85                  90                  95
His Arg Asp Ser Phe Pro Gly His Lys Thr Ala Val Ser Gln Pro Gly
            100                 105                 110
Thr Pro Ala Glu Pro Val Pro Asp Ala Thr Glu Ala Arg Leu Leu Asn
        115                 120                 125
Leu Glu His Ser Leu Tyr Asp Met His Thr Arg Leu Ser Arg Ala Glu
    130                 135                 140
Glu Ala His Thr Ala Leu Asn Leu Arg Cys Gln Ala Met Ala Glu Ser
145                 150                 155                 160
Leu Ala Arg Cys His His Val Arg
                165
```

<210> 39437
<211> 75
<212> PRT
<213> A.fumigatus

```
<400> 39437
Gln Leu Leu Val Ile Cys Arg Ser Asp Leu Leu Thr Arg Leu Val Arg
1               5                   10                  15
Asp Thr Phe Leu Ser Phe His Gly Ser Pro Ser Arg Pro Ser Ser Ile
            20                  25                  30
Ser Cys Tyr Thr Phe Phe Arg Asp Tyr Gly Val Asp Trp Asn Glu Trp
        35                  40                  45
Arg Thr Lys Gly Gln Arg Gly Thr Leu Asp Trp Ser Lys Thr Leu His
    50                  55                  60
Pro Pro Leu Ser Leu Val Gly Asp Lys Asn Ser
65                  70                  75
```

<210> 39438
<211> 865
<212> PRT
<213> A.fumigatus

```
<400> 39438
Gln Asn Glu Ser Arg Ala Ala Ala Glu Glu Ala Thr Arg Leu Val Leu
1               5                   10                  15
Glu Leu Gln Thr Ile Ala Arg Asp Ala Gly His Pro Val Pro Leu Leu
            20                  25                  30
Ile Ala Leu Asp Gln Glu Asn Gly Gly Val Asn Ser Leu Tyr Asp Glu
        35                  40                  45
Ile Tyr Ile Arg Gln Phe Pro Ser Ala Met Gly Ile Ala Ala Thr Gly
    50                  55                  60
Ser Lys Ser Leu Ala His Asp Val Ala Tyr Ala Thr Ala Gln Glu Leu
65                  70                  75                  80
Lys Ala Val Gly Val Asn Trp Ile Leu Gly Pro Val Leu His Val Leu
                85                  90                  95
Thr Asn Val Arg Thr Gln Pro Leu Gly Val Arg Thr Thr Gly Asp Asp
            100                 105                 110
Pro Gln Glu Val Ser Gln Tyr Gly Val Glu Phe Met Lys Gly Tyr Lys
        115                 120                 125
```

```
Lys Ala Gly Leu Val Thr Cys Gly Lys His Phe Pro Ser Tyr Gly Asn
    130                 135                 140
Leu Glu Phe Leu Gly Ser Gln Thr Asp Val Pro Ile Ile Thr Glu Ser
145                 150                 155                 160
Leu Glu Gln Leu Ser Leu Thr Ala Leu Val Pro Phe Arg Asn Ala Ile
                165                 170                 175
Val His Gly Leu Asp Ser Met Met Val Gly Gly Val Ser Met Ser Ser
            180                 185                 190
Ala Gly Val Asn Val Met His Ala Cys Leu Ser Glu Gln Val Val Asp
        195                 200                 205
Asp Leu Leu Arg Lys Asp Leu Lys Phe Asn Gly Val Val Val Ser Glu
    210                 215                 220
Cys Leu Glu Met Glu Ala Leu Thr His Asn Ile Gly Val Gly Gly Gly
225                 230                 235                 240
Thr Val Met Ala Lys Asn Ala Gly Cys Asp Ile Ile Leu Leu Cys Arg
                245                 250                 255
Ser Phe Pro Val Gln Gln Glu Ala Ile Asn Gly Leu Lys Leu Gly Val
            260                 265                 270
Glu Asn Gly Ile Ile Gly Arg Ala Arg Ile Glu Gln Ser Leu Arg Arg
        275                 280                 285
Val Leu Lys Met Lys Ala Lys Cys Thr Ser Trp Asp Gln Ala Leu Asn
    290                 295                 300
Pro Pro Gly Leu Pro Ser Leu Met Gln Met Gln Pro Ser His Thr Ser
305                 310                 315                 320
Leu Ser Lys Arg Ala Tyr Asn Asn Ser Ile Ser Val Val Arg Asp Lys
                325                 330                 335
Gln Asn Leu Leu Pro Leu Ser Asn Ile Ile Glu Pro Asn Glu Glu Leu
            340                 345                 350
Leu Leu Leu Thr Pro Leu Val Lys Pro Leu Pro Ala Ser Ala Val Ser
        355                 360                 365
Arg Ser Val Thr Glu His Met Asn Leu Ser Ile Asp Pro Ile Ala Ser
    370                 375                 380
Asp Arg Thr Ala Ser Val Leu Ser Gly Glu Ser Val Phe Lys Glu Leu
385                 390                 395                 400
Gly Arg Ser Leu Ser Arg Gln Arg Ser Gly Arg Val Leu His Thr Ser
                405                 410                 415
Tyr Thr Ala Asn Gly Val Arg Pro Ile His Glu Asn Leu Ile Asp Arg
            420                 425                 430
Ala Ser Ala Val Ile Val Val Thr Ala Asp Ala Asn Arg Asn Leu Tyr
        435                 440                 445
Gln His Gly Phe Thr Lys His Val Ser Leu Ile Cys Arg Ser Gln Phe
    450                 455                 460
Ser Pro Ser Gly Glu Pro Arg Glu Lys Pro Met Ile Val Ile Ala Ala
465                 470                 475                 480
Ser Ser Pro Tyr Asp Phe Ala Met Asp Thr Ser Ile Gly Thr Tyr Val
                485                 490                 495
Cys Thr Tyr Asp Phe Thr Glu Thr Ala Leu Glu Ala Leu Val Lys Val
            500                 505                 510
Leu Tyr Gly Glu Leu Thr Pro Lys Gly Ser Leu Pro Gly Ser Ile Ser
        515                 520                 525
Arg Ser Gln Lys Leu His Gln Ala Arg Gln His Trp Leu Val Glu Asn
    530                 535                 540
Trp Asn Glu Glu Arg Asp Ala Gln Ser Leu Asp Thr Leu Leu Asp Ala
545                 550                 555                 560
Val Arg Ala Asp Cys Ala Gln Gly Gln Arg Ser Glu Leu Leu Gly Val
                565                 570                 575
```

```
Thr Ser Ser Ser Phe Leu Leu Arg Ser Glu Glu Ile Asp Glu Ala His
            580                 585                 590
Phe Val Val Arg Asn Ser Ser Thr Gln Ala Leu Tyr Val Phe Cys Ser
        595                 600                 605
Thr Tyr Phe Phe Arg Ser Thr Gly Thr Gly Val Ile Gly Ser Leu Ile
    610                 615                 620
Val Asp Pro Ala Arg Arg Lys Leu Ser Ile Gly Asn Ser Leu His Asn
625                 630                 635                 640
Arg Ala Ile Arg Thr Leu Leu Gln Arg Lys Gly Met Arg Arg Phe Gln
                645                 650                 655
Leu Gly Ser Arg Leu Pro Gly Ile Tyr Leu Gly Ile Pro Ser Ser Asn
            660                 665                 670
Pro Val Glu Arg Lys Arg Leu Arg Gln Trp Phe Ala Asn Leu Gly Trp
        675                 680                 685
Asn Thr Ala Leu Ser Arg Pro Val Cys Ser Val Val Leu Arg Asn Leu
    690                 695                 700
Pro Thr Trp Thr Pro Pro Asp Gly Leu Ile Gln Gly Leu Lys Asn Ala
705                 710                 715                 720
Asp Val Ser Tyr Asp Leu Val His Gly Trp Asp Tyr Ala Glu Pro Ile
                725                 730                 735
Leu Asp His Ile Lys Thr Asn Ser Arg Gln Gly Leu Ile Asp Ile Tyr
            740                 745                 750
Lys Ile Ala Leu Gly Gly Ala Pro Asn Cys Gly Ile Ile Arg Ala Met
        755                 760                 765
Arg Pro Ser Asp Gly Ala Ile Leu Gly Thr Val Val Ile Tyr Asn Gly
    770                 775                 780
Arg Ser Ser Leu Ala Glu His Val Pro Val Leu Lys Ala Thr Gln Pro
785                 790                 795                 800
Ser Ser Gly Gly Ile Ser Ser Pro Val Ile Ser Pro Ser Val Gly Glu
                805                 810                 815
Tyr Ala Thr Val Met Gln Gly Leu Val Leu Leu Gly Ile Lys Gln Ile
            820                 825                 830
Arg Arg Gln Gly Ala Glu Ala Val Val Ile Asp Cys Val Ser Ser Asn
        835                 840                 845
Pro Leu Tyr Pro Ala Phe Gln Ser Phe Arg Ser Leu Pro Arg Leu Thr
    850                 855                 860
Gly
865
```

<210> 39439
<211> 94
<212> PRT
<213> A.fumigatus

<400> 39439

```
Leu Arg Cys Ile Pro Asn His Thr Leu Tyr Val Val Gly Asn Asn Asp
1               5                   10                  15
Gly Gly Leu Leu Asn Glu His Tyr Leu Pro Ser Ser Thr Cys Gly Pro
            20                  25                  30
Phe Asn Leu Ile Ser Glu Phe Asp Ser Val Leu Val His Gly Tyr Val
        35                  40                  45
Arg Lys Glu Thr Lys Asp Glu Ile Glu Ala Glu Pro Leu Leu Trp Asn
    50                  55                  60
Asp Lys Pro Leu Gly Gly Glu Gly Leu Asn Ser Val Ser Lys Ser Asp
65                  70                  75                  80
His Ala Glu Glu Gln Gly His Pro Ala Asn Asp His Phe Cys
```

85 90

<210> 39440
<211> 191
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (186)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39440
Leu Val Ser Leu Pro Ser Ile Met Ala Ser Val Asp Pro Ser Leu His
1 5 10 15
Asp Pro Leu Leu Ala Leu Arg Arg Ala Ile Ala Ala Gly Ser Leu Pro
20 25 30
Thr Pro Thr Thr Thr Ser Asp Leu Ser Asp Asp Asn Ala Thr Glu Asp
35 40 45
Leu Ala Lys Ala Thr His Leu Tyr Phe Arg Gln Pro Ile Pro Gln Thr
50 55 60
Ile Pro Leu Thr Ala Ser Thr Arg Phe Val Ser Ala Ser Ser Asp Ser
65 70 75 80
Ala Val Asp Leu Arg Ser Ile Phe Phe Ala Trp Gln Lys Lys Asp Val
85 90 95
Ala Ile Pro Glu Tyr Ile Ala Ser Ala Gln Glu Leu Asn Glu Ser Leu
100 105 110
Lys Gln Lys Glu Arg Lys Glu Gly Glu Pro Glu Glu Lys Val Gln Asn
115 120 125
Leu Val Phe Val Glu Arg Leu Asp Leu Ile Thr Trp Leu Glu Gly Ala
130 135 140
Ser Asp Glu Ser Glu Tyr Ile Lys Pro Leu Glu Gly Ala Ala Ala Ala
145 150 155 160
Ala Pro Ser Ala Ala Pro Ala Asp Ala Ser Ala Ala Ile Ala Pro Gly
165 170 175
Ala Ala Gly Ser Ser Pro Arg Gly Cys Xaa Trp Thr Ser Ile Asp
180 185 190

<210> 39441
<211> 976
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (292)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39441
Ser Pro Gln Pro Pro Asn Asn Thr Pro Gln Arg Val Phe His Leu Phe
1 5 10 15
Val Glu Gly Val Leu Cys Gln Ile Met Thr Asp Thr Ser Pro Val Ala
20 25 30
Ile Thr His Ser Thr Thr Glu Pro Tyr Pro Val Thr Val Pro Leu Asn
35 40 45
Ser Pro Ala Leu Asn Gly Ala Val Ser Asp Ser Ala Ala Pro Asp Glu

```
    50                  55                  60
Glu Glu Pro Tyr Thr Ile Lys Cys Ile Cys Ala Phe Glu Asp Asp Asp
65                  70                  75                  80
Gly Asn Thr Val Phe Cys Glu Gly Cys Glu Thr Trp Gln His Ile Glu
                85                  90                  95
Cys Tyr Tyr His Gly Arg His Val Pro Glu Val His Asn Cys Val Asp
            100                 105                 110
Cys Glu Pro Arg Tyr Leu Asp Ala Lys Arg Ala Thr Glu Arg Gln Arg
        115                 120                 125
Arg Leu Arg Glu Ile Gly Asp Ser Gly Asp Arg Lys Ala Lys Arg Ala
    130                 135                 140
Gly Ala Lys Gly Gln Arg Lys Arg Val Lys Asp His Gly Asp Lys Val
145                 150                 155                 160
Asn Gly Phe His Gln Arg Ala Asp Ser Ile Ala Arg Asp Gln Pro Pro
                165                 170                 175
Ala Lys Lys Ala Lys Ala Thr His Arg Ala Ser Gly Ser Ile Ser Ser
            180                 185                 190
Leu Pro Gly Ala Ala Pro Phe Pro Leu Asp Ala Arg Arg Arg Val Ala
        195                 200                 205
Thr Ser Met Ser Pro Thr Lys Ser Leu Gly Pro Ser Ile Pro Leu Tyr
    210                 215                 220
Ser Asn Glu Phe Leu His Leu Tyr Asp His Asp Gln Asp Tyr Ala Pro
225                 230                 235                 240
Met Asn Ser Asn Leu Phe Val Asn Leu Pro Leu Ala Ala Asp Leu Ala
                245                 250                 255
Ser Trp Val Thr Glu Pro Thr Ala Leu Ala Arg Val Ser Asn Gly Arg
            260                 265                 270
Ser Ser Arg Asp Ile Phe Thr Trp Ser Asp Thr Ala Leu Asp Arg Ser
        275                 280                 285
Leu Trp Pro Xaa Leu Ser Thr Glu Thr Ile Thr Asp Pro Ser Ile Asn
    290                 295                 300
Ile Glu Gly Arg His Pro Thr Trp Lys Val Leu Arg Thr Arg Glu Ser
305                 310                 315                 320
Val Ser Lys Asp His Ile Val Gly Glu Ile Thr Gly Lys Ile Gly Leu
                325                 330                 335
Leu Arg Asp Tyr Cys Leu Asp Pro Ser Asn Arg Trp Gln Glu Leu Arg
            340                 345                 350
His Pro Glu Pro Phe Val Phe Phe His Pro Gln Leu Pro Ile Tyr Ile
        355                 360                 365
Asp Ser Arg His Glu Gly Ser Ile Leu Arg Tyr Val Arg Arg Ser Cys
    370                 375                 380
Arg Pro Asn Val Thr Ile Lys Thr Tyr Ile Thr Asn Glu Val Glu Tyr
385                 390                 395                 400
His Phe Cys Phe Val Ala Lys Glu Asp Ile Ser Ala Asn Ser Glu Ile
                405                 410                 415
Thr Ala Met Trp Tyr Leu Asp Pro Gln Leu Phe Glu Ser Thr His Gly
            420                 425                 430
Leu Val Lys Gln Glu Pro Asn Asp Ser Ala Gln Glu Val Ala Ala Ile
        435                 440                 445
Cys Ile Ser Asn Val Leu Ala Asn Phe Gly Gly Cys Ala Cys Glu Pro
    450                 455                 460
Pro Ala Asn Cys Leu Leu Ala Ser Val Asp Arg Arg Arg His Pro Lys
465                 470                 475                 480
Ala Leu Glu Ser Lys Gln Val Asn Gly Lys Arg Lys Lys Ala Lys Ala
                485                 490                 495
Lys Ser Ala Ala Ser Pro Pro Ala Thr Asn Ser Arg Ala Ser Ser Glu
```

```
                500                 505                 510
Thr Thr Lys Asn Met Glu Asp Asp Asp Gln Pro Asp Ser Arg Ser Thr
        515                 520                 525
Ser Gly Ser Ser Arg Gly Gln Pro Arg Ser Arg Asp Leu Thr Pro Thr
    530                 535                 540
Leu Gln His Asp Gly Glu Ser Glu Leu Ser Ala Arg Glu Lys Arg Lys
545                 550                 555                 560
Ile Ala Ala Ala Glu Lys Lys Phe Gln Gln Leu Glu His Asp Gln Gln
                565                 570                 575
Ala His Lys Lys Lys Lys Arg Asn Ser Gly Gln Ala Thr Leu Val Pro
            580                 585                 590
Gln Ala Gln Val Ser Gln Ser Ala His Gln Ala Val Ser Ala Gln Gly
        595                 600                 605
His Ser Arg Ser Ser Ser Ser Ala Gln Pro Ser Gly Ser Met Ser Arg
    610                 615                 620
Lys Pro Ser Ser Ile Glu Ala Ser His Gly Arg Ser Pro Leu Arg Arg
625                 630                 635                 640
Ser His Tyr Val Asp Ser Ala Ile Gln Thr Glu Pro Glu Ala Asp Thr
                645                 650                 655
Ser Met Leu Ser Val Ala Pro Pro Leu Arg Arg Pro Ser Tyr Val Pro
            660                 665                 670
Leu Thr Gln Arg Leu Leu Arg Arg Cys His Ala Asp Arg Val Arg Leu
        675                 680                 685
Glu Glu Asp Ser Arg Arg Leu Pro Ser Ser Ser Pro Ala Ala Leu Ser
    690                 695                 700
Pro Leu Ser Ser Ser Ser His Gly Ala Leu Gly Pro Asn Val Thr Pro
705                 710                 715                 720
Leu Lys Thr Pro Leu Ile Glu Lys Glu Asp Val Glu Met Lys Asp Ser
                725                 730                 735
Asp Ser Pro Thr Thr Val Val Ser Ala Gly Gln Ser Pro Thr Gln Glu
            740                 745                 750
Thr Glu Gln Lys Ala Ser Thr Pro Pro Ser Ala Pro Trp Met Leu Thr
        755                 760                 765
Lys Pro Pro Phe Pro Pro Pro Trp Pro Ser Thr Ala Ala His Asn Ala
    770                 775                 780
Arg Leu Pro Gly Ser Arg Val Asn Asn His Arg Thr Asn Leu Trp Val
785                 790                 795                 800
Pro Leu Pro Pro Ala Thr His Pro Ala Gly Pro Thr Ala Ile Ser Pro
                805                 810                 815
Gly Ser Ala Thr Gly Ser Thr Val Ser Ser Pro Ser Thr Leu Asp Ala
            820                 825                 830
Pro Ala Gln Pro Ala Ala Ala Thr Pro Gly Ser Gly Val Thr Ala Pro
        835                 840                 845
Ser Pro Val Lys Lys Lys Leu Ser Leu Gly Asp Tyr Leu Ser Arg Arg
    850                 855                 860
Gly Ala Leu Thr Thr Pro Thr Ser Glu Lys Ser Gln Ala Gln Ala Thr
865                 870                 875                 880
Ala Met Leu Pro Pro Gln Lys Pro Val Ser Asp Gln Ser Thr Ala Thr
                885                 890                 895
Arg Asp Val Ser Ala Pro Val Asp Thr Leu His Pro Glu Ile Lys Val
            900                 905                 910
Thr Gly Glu Ala Glu Ala Thr Lys Arg Glu Ser Pro Thr Ser Pro Asp
        915                 920                 925
Val Thr Val Lys Gly Ala Ser Ser Ser Gly Pro Thr Ser His Val Pro
    930                 935                 940
Ser Ser Phe Ser Lys His Asn Cys Leu Leu Val Thr Leu Ala Ala Leu
```

945 950 955 960
Leu Trp Gln Phe Ala Gly Ser Phe Phe Leu Phe Phe His Val Val Ser
965 970 975

<210> 39442
<211> 71
<212> PRT
<213> A.fumigatus

<400> 39442
Met Arg Asp Gly Asp Trp Gly Gly Ile Cys His Asn Leu Thr Glu Tyr
1 5 10 15
Pro Leu His Glu Gln Met Lys Asn Ala Leu Trp Cys Ile Val Gly Arg
20 25 30
Leu Arg Ala Ser Asn Asn Pro Phe Arg Pro Asn Arg His Ala Thr Tyr
35 40 45
His Gln Ile Asp Gly Tyr Thr Ser Leu Leu Ser Ser Cys Pro Ile Ile
50 55 60
Tyr Asn Thr Cys Gly Ile Glu
65 70

<210> 39443
<211> 79
<212> PRT
<213> A.fumigatus

<400> 39443
Lys Met Ala Phe Pro Tyr Lys Asn Val Phe Ile Ile Gly Ala Thr Ser
1 5 10 15
Gly Ile Gly Lys Ala Leu Ala Asn Lys Leu Val Gln Asn Gly Ile Pro
20 25 30
Thr Ile Ile Ala Gly Arg Arg Gln Gly Asn Leu Val Asp Phe Val Gln
35 40 45
Gln His Gly Thr Asp Lys Val Lys Ser Lys Val Ile Asp Val Leu Gln
50 55 60
Leu Asp Lys Val Cys Leu Ser Thr Arg Phe His Asn Ala Cys Ser
65 70 75

<210> 39444
<211> 201
<212> PRT
<213> A.fumigatus

<400> 39444
Ile Pro Gln Phe Val Ala Asp Val Ile Asp Glu Asn Pro Asp Leu Asp
1 5 10 15
Cys Val Phe Val Asn Ser Gly Ile Gln Arg Pro Phe Asp Phe Ser Lys
20 25 30
Pro Glu Ser Val Asp Met Asp Val Phe Asp Gln Glu Leu Ile Thr Asn
35 40 45
Tyr Ser Ser Ala Val Arg Leu Ala Lys Ala Phe Ile Pro His Leu Gln
50 55 60
Arg Gln Ser Thr Ala Ala Ile Ala Phe Thr Thr Ser Gln Met Ala Leu
65 70 75 80
Val Pro Met Lys Arg Cys Pro Asn Tyr Gly Ala Ser Lys Ala Ala Leu
85 90 95

```
His His Phe Ile Leu Ala Leu Arg Thr Gln Leu Gln Asp Gly Pro Gly
            100                 105                 110
Asn Val Lys Val Ile Glu Ile Tyr Pro Pro Ala Val Gln Thr Glu Leu
        115                 120                 125
His Asp Ala Lys His Gln Pro Asp Leu Lys Asp Gly His Leu Ile Gly
    130                 135                 140
Met Pro Leu Cys Glu Phe Ile Glu Asp Val Trp Cys Gln Leu Cys His
145                 150                 155                 160
Gly Lys Glu Gln Val Ala Val Gly Ser Ala Arg Glu Ile Phe Glu Ala
                165                 170                 175
Phe Glu Ile Lys Arg Gln Glu Val Tyr Tyr Gln Met Thr Glu Met Leu
            180                 185                 190
Ser Lys Leu Leu Arg Gln Phe Leu Arg
        195                 200
```

<210> 39445
<211> 225
<212> PRT
<213> A.fumigatus

```
<400> 39445
Gln Asp Ile Phe Val Cys Pro Lys Ser Ile Ser Met Leu Met Lys Trp
1               5                   10                  15
Pro Tyr Arg Pro Arg Gly His Arg Ala Ala Ala Lys Ala Asn Thr His
            20                  25                  30
Gly Asn Arg Tyr Asp Thr Arg Asp Ser Ser Ser Ser Phe Val Gly His
        35                  40                  45
Arg Pro Ser Ser Ser Ala Asn Ser Val Tyr Ser Ala Val Arg Ala Ser
    50                  55                  60
Glu Ser Ser Ala Ser Leu Pro Gly Thr Asn Ser Gln Ser Pro Met Ser
65                  70                  75                  80
Asp Ala Ser Met Leu Thr Pro Pro Ala Ile Asn Ser Ala His Glu Pro
                85                  90                  95
Ser Leu Asp Ser Asp Ser His Tyr Arg Ser Arg Arg Gln Ser Leu Gly
            100                 105                 110
Arg Pro Ser Ser Gly Ala Glu Asp Pro Asn Arg Arg Ser Val Glu Gly
        115                 120                 125
Ile Ser Ala Arg Ala Thr Pro Asp Tyr Thr Glu Ile Leu Met Glu Met
    130                 135                 140
Arg Asp Leu Asp Pro His Asp Pro Leu Ala His Glu Trp Asn Thr Asp
145                 150                 155                 160
Pro Phe Glu His Asp Ala Glu Leu Thr Thr His Tyr Val Glu Asn Tyr
                165                 170                 175
Phe Thr Tyr Val Asn Asp Ser Leu Tyr Tyr Ile Phe Pro Arg Arg Arg
            180                 185                 190
Phe Leu Leu Trp Leu Arg Ser Cys His Ala Lys Ser Leu Glu Asp Lys
        195                 200                 205
Met Leu Leu Tyr Ser Met Met Thr Leu Gly Ser His Phe Leu Arg Ser
    210                 215                 220
Ala
225
```

<210> 39446
<211> 334
<212> PRT
<213> A.fumigatus

<400> 39446
Ile Ala Leu Arg Ser Ala Val Pro Phe Met Asn Val Met Ser Ala Tyr
1 5 10 15
Tyr Val Gly Pro Phe Gly Arg Met Leu Pro Val Thr Asp Arg Asn Ser
20 25 30
Pro Glu Arg Glu Pro Glu Arg Ser Ala Asn Glu Pro Val Ser Gly Asn
35 40 45
His Pro Tyr Gln Leu Pro Pro Pro Arg Thr Met Glu Ser Leu Gln Phe
50 55 60
Gly Thr Asp Pro Phe Leu Ser Arg Arg Asn Leu Glu Gly Asn Gly Asp
65 70 75 80
Ser Arg Leu Gly Ser Ser Ala His Gly His Gln Pro Val Ile Asn Glu
85 90 95
Gln Leu Pro Ser Val Ser Glu Leu Leu Thr Pro Ser Ser Arg Ser Ser
100 105 110
Gln Ser Val Ser Pro Asn Arg Ser Arg Leu Phe Gly Phe Tyr His Pro
115 120 125
Thr Gly Glu Ser Pro Lys Pro Ser Gln Pro Ser Gln Arg Pro His Thr
130 135 140
Thr Ser Arg His Asp Asp Thr Gly Val Pro Arg Thr Pro Gln Gly Arg
145 150 155 160
Pro Glu Ala Arg Ala Glu Arg Phe Ser Arg Pro Thr Ala Gly Asn Leu
165 170 175
Pro Ser Leu Ser Gln Met Ser Val Tyr Thr Ala Gly Asn Glu Ala Ser
180 185 190
Ile His Gly Gly Ile Arg Thr Asp Val Pro Gln Gln Gln Ala His Leu
195 200 205
Ser Pro Phe Thr Pro Gln Gly Arg Val Ser His Asp Lys Glu Ile Arg
210 215 220
Glu Glu Asn Ser Leu Pro Gly Thr His Glu Ile Gly Ser Ala Ala Ala
225 230 235 240
Asp Gln Ser Lys Met Ala Gln Val Arg Pro His Val Val Asp Glu Arg
245 250 255
Tyr Ile Glu Gly Glu Gly Trp Cys Tyr Ile Tyr Ala Asp Gly Ser His
260 265 270
Cys Pro Lys Thr Ile Asp Gly Val Pro Val Asn Ala Asn Trp Gly Val
275 280 285
Thr Lys Ala Gly Lys Pro Arg Lys Arg Leu Ala Gln Ala Cys Leu Thr
290 295 300
Cys Arg Glu Lys Lys Ile Lys Cys Gln Pro Asn Leu Pro Lys Cys Asp
305 310 315 320
Gln Cys Gln Lys Ser Gly Arg Glu Cys Arg Phe Glu Ser Ala
325 330

<210> 39447
<211> 66
<212> PRT
<213> A.fumigatus

<400> 39447
Arg Lys Glu Lys Asn Lys Lys Arg Lys Glu Glu His Ser Gly Glu Ser
1 5 10 15
Asn Gly Lys Trp Asn Arg Glu Arg Lys Arg Ile Ile Lys Lys Lys His
20 25 30
Lys Lys Asn Ser Asp Thr Leu Val Ile Pro Ala Ala Ile Ser Ser Ser

```
        35                  40                  45
Leu Thr Val Leu Leu Gly His Gly Val Tyr Gln Gln Thr Thr Phe Ser
    50                  55                  60
Phe Leu
65
```

<210> 39448
<211> 83
<212> PRT
<213> A.fumigatus

<400> 39448

```
Thr Ser Cys Arg Pro Ile Met Trp Asp Leu Ser Gly Val Cys Tyr Leu
1               5                   10                  15
Leu Pro Thr Glu Ile Leu Arg Arg Gly Asn Gln Ser Val Gln Leu Thr
            20                  25                  30
Ser Gln Tyr Leu Glu Thr Ile Pro Thr Asn Phe Pro His Arg Ala Gln
        35                  40                  45
Trp Ser Leu Cys Ser Leu Glu Gln Thr Pro Phe Ser Pro Gly Glu Ile
    50                  55                  60
Trp Lys Glu Met Glu Thr Pro Asp Ser Ala Gln Val Leu Met Asp Ile
65                  70                  75                  80
Ser Gln Ser
```

<210> 39449
<211> 139
<212> PRT
<213> A.fumigatus

<400> 39449

```
Arg Glu Asp Thr Gln Gly Pro Asp Gly Phe Tyr Leu Phe Leu Ser Pro
1               5                   10                  15
Ser Pro Leu Ser Ser Ile Glu Ser Ser Asp Tyr Arg Val Gly Leu Arg
            20                  25                  30
Pro Ser Glu Val Arg Tyr Trp Asp Val Arg Pro Arg Lys Pro Val Ile
        35                  40                  45
Asn Cys Ser Ala Gly Arg Asp Ser Asp Ser Arg Leu Thr Leu Val Asn
    50                  55                  60
Met Gly Gly Gln Val Ser Lys Met Leu Gly Lys Ile Phe Gly Thr Lys
65                  70                  75                  80
Glu Met Arg Ile Leu Met Leu Gly Leu Asp Ala Ala Gly Lys Thr Ser
                85                  90                  95
Glu Phe Gln Leu Arg Gly Arg Leu Asn Gly Ile Ala Trp Lys Leu Thr
            100                 105                 110
Ser Val Thr Arg Ser Tyr Pro Leu Gln Thr Lys Ala His Glu Ser Gly
        115                 120                 125
Cys His His Tyr Ser Tyr Cys Arg Phe Gln Arg
    130                 135
```

<210> 39450
<211> 85
<212> PRT
<213> A.fumigatus

<400> 39450

```
Met Glu Leu Pro Gly Ser Ser Pro Ala Ser Pro Ala Ala Ile Leu Tyr
1               5                  10                  15
Lys Leu Lys Leu Thr Asn Gln Asp Val Thr Thr Ile Pro Thr Val Gly
            20                  25                  30
Phe Asn Val Glu Ser Val Thr Tyr Lys Asn Val Lys Phe Asn Val Trp
        35                  40                  45
Asp Val Gly Gly Gln Asp Lys Ile Arg Pro Leu Trp Arg His Tyr Tyr
    50                  55                  60
Ser Gly Met Asn Arg His Val Trp Cys Asn Ile Ser Ser Ile Arg Val
65                  70                  75                  80
Leu Thr Ser Ile Arg
                85
```

<210> 39451
<211> 96
<212> PRT
<213> A.fumigatus

<400> 39451

```
Gln Thr Thr Gln His Ser Asp Phe Arg Ser Tyr Val Pro His Gly Phe
1               5                  10                  15
Ile Phe Phe Pro Val Phe His Phe Arg Ser Ser Ile Ser Phe Phe Ser
            20                  25                  30
Met Ile Ser Pro Ser Val Ser Val Arg Val Ile His Thr Tyr Pro Phe
        35                  40                  45
Thr Asn Asn Pro Pro Val Val Leu Cys Thr Ser Asp Cys Ser Ser Ala
    50                  55                  60
Ile Leu Val Glu Tyr Ile Cys Phe Arg Asp Phe Pro Cys Arg Lys Asn
65                  70                  75                  80
Pro Asn Arg Trp Gln Ile Trp Thr Ser Thr Tyr Asn Gly Ser Leu Gln
                85                  90                  95
```

<210> 39452
<211> 137
<212> PRT
<213> A.fumigatus

<400> 39452

```
Lys Leu Pro Leu Val Leu Glu Ile Trp Ile Thr Ser Leu Thr Gln Leu
1               5                  10                  15
Ile Tyr Arg Tyr Lys Ser Ser Gln Ala Lys Pro Ser Thr Thr Ser Ala
            20                  25                  30
Pro Ala Thr Ser Tyr Ser Thr Gly His Asn Ala Arg Leu Gln Lys Arg
        35                  40                  45
Arg Lys Ser Pro Leu Gln Ala Cys Arg Arg Tyr Val Leu Pro Gln Ser
    50                  55                  60
Ile Lys Thr Asn Gly Lys Arg Trp Leu Asp Ala Lys Leu Ile Arg Leu
65                  70                  75                  80
Gly Pro Glu Ser Lys Thr Ser Glu Ala Val Gly Ile Ile Arg Glu Val
                85                  90                  95
Ala Thr Glu Ser Thr Gln Met Thr Gly Arg Asn Val Ala Ala Ser Asp
            100                 105                 110
Glu Glu Pro Arg Tyr Thr Val Ser Tyr Tyr Phe Ile Gln Cys Val Ala
        115                 120                 125
Gly Gly Ala Asn Trp Gly Gly Lys Asp
    130                 135
```

<210> 39453
<211> 203
<212> PRT
<213> A.fumigatus

<400> 39453
Thr Thr Leu Thr Pro Met Ser Ile Pro Ala Ala Ser Pro Glu Leu Glu
1 5 10 15
Gln Ser Val Arg Gln Leu Ser Leu Arg Asp Asp Ala Pro Ile Lys Asp
20 25 30
Ile Pro Arg Pro Thr Val Lys Thr Pro Thr Arg Lys Lys Lys Ala Pro
35 40 45
Val Val Ala Asp Ser Trp Glu Asp Glu Ala Asp Ser Asp Pro Ser Leu
50 55 60
Ser Glu Val Glu Gln Ser Arg Ser Ser Ser Ala Ala Thr Pro Asp Leu
65 70 75 80
Ser Thr Leu Ser Pro Ser Val Ser Thr Ser Thr Glu Gly Pro Leu Asp
85 90 95
Pro Pro Pro Thr Pro Ile Ser Pro Gln Thr Ser Gln Leu Trp Gly Ser
100 105 110
Ser Ala Pro Leu Pro Gly Arg Gly Leu Ser Ser Ser Pro Pro Arg Gly
115 120 125
Ser Gly Ser Arg Ser Pro Ala Arg Arg Pro Glu Lys Gln Thr Ala Val
130 135 140
Ala Gly Arg Leu Ile Ala Gly Ala Leu Gly Ile Arg Ala Pro Lys Arg
145 150 155 160
Thr Glu Glu Gln Arg Ala Tyr Asp Arg Ala Ile Lys Glu Gln Glu Leu
165 170 175
Arg Arg Arg Asn Arg Glu Arg Glu Glu Glu Ala Lys Arg Lys Glu Glu
180 185 190
Glu Glu Arg Ala Lys Ala Ala Val Trp Asp Glu
195 200

<210> 39454
<211> 76
<212> PRT
<213> A.fumigatus

<400> 39454
Ser Pro Met Asp Ser Ile Met Ala Pro Asn Gly Lys His Ser Arg Leu
1 5 10 15
Thr Arg Val Ala Cys Leu Thr Lys Asn Ser Tyr Lys Glu Glu Arg Cys
20 25 30
Gln Ala Gln Ile Asn Ala Leu Tyr Glu Cys Cys Asn Ala Phe Tyr Gln
35 40 45
Glu Lys Gly Glu Asp Ala Lys Thr Pro Ser Cys Pro Lys Pro Ser Leu
50 55 60
Leu Lys Leu Arg Ile Lys Gln Gln Ser Gln Gly Asn
65 70 75

<210> 39455
<211> 63
<212> PRT
<213> A.fumigatus

<400> 39455
Ala Lys Pro Phe Val Val Arg Ser Tyr Ala Arg Ser Leu Asn Thr Leu
1 5 10 15
Ala Leu Arg Gln His Gln His Arg Arg Ala Ala Arg Ser Ser Pro Asp
20 25 30
Thr Tyr Leu Thr Thr Asp Ile Ser Ala Leu Gly Val Glu Arg Ala Leu
35 40 45
Thr Gly Ser Trp Val Glu Leu Val Pro Thr Ala Arg Val Arg Val
50 55 60

<210> 39456
<211> 67
<212> PRT
<213> A.fumigatus

<400> 39456
Thr Ser Gly Phe Glu Cys Phe Ser Met Asp Thr Cys Ser Arg Ile Gln
1 5 10 15
Ala Gln Glu Arg Ala Lys Pro Asp Ala Ser Ala Ile Tyr Val Pro Gly
20 25 30
Asn Gln Thr Ala Lys Ala Ile Glu Glu Ala Ile Glu Ala Glu Ile Pro
35 40 45
Leu Val Val Ala Val Ala Glu His Val Pro Ile His Asp Met Leu Arg
50 55 60
Val Ser Arg
65

<210> 39457
<211> 156
<212> PRT
<213> A.fumigatus

<400> 39457
Gly Met Leu Lys Pro Arg Met Ala Asp Leu Leu Gln Val His Ser Met
1 5 10 15
Leu Gln Thr Gln Ser Lys Thr Arg Leu Val Gly Ala Asn Cys Pro Arg
20 25 30
Leu Ile Ser Ala Ile Gly Lys Cys Arg Ile Gly Phe Gln Pro Leu Pro
35 40 45
Cys Phe Ser Pro Gly Lys Val Gly Ile Val Ala Lys Ser Gly Thr Ile
50 55 60
Ser Tyr Glu Thr Val Ala Ser Thr Thr Arg Ala Gly Leu Gly Gln Ser
65 70 75 80
Leu Cys Ile Ser Met Gly Gly Asp Val Leu Ala Gly Thr Asn Phe Val
85 90 95
Asp Ala Leu Lys Val Phe Glu Glu Asp Pro Asp Thr Glu Gly Ile Ile
100 105 110
Leu Val Gly Glu Ile Gly Gly Ile Ala Glu Ile Asp Ala Ala Asp Trp
115 120 125
Ile Arg Asp Tyr Asn Lys Arg Thr Ala Asn Pro Lys Tyr Ala Arg Phe
130 135 140
Glu His Val Leu Ala Tyr Val Arg Thr Asp Thr Ala
145 150 155

<210> 39458
<211> 87

<212> PRT
<213> A.fumigatus

<400> 39458
Glu Leu Thr Leu Pro Arg Pro Ile Met Ala Leu Val Gly Gly Arg Glu
1 5 10 15
Ala Leu Pro Gly Arg Val Met Gly His Ala Gly Ala Trp Ile Thr Pro
20 25 30
Gly Glu Pro Asp Ala Glu Ala Lys His Arg Ala Leu Glu Ser Ala Gly
35 40 45
Val Thr Met Val Asp His Pro Glu Lys Phe Gly Gln Gly Met Lys Ala
50 55 60
Leu Leu Ala Arg Arg Thr Leu Thr Ser Ala Thr Val Ser Ile Val Arg
65 70 75 80
Trp Pro Cys Ala Ser Arg Asp
85

<210> 39459
<211> 117
<212> PRT
<213> A.fumigatus

<400> 39459
Cys Thr Val Arg Ala Asp Gln Ile Val Asn Gly Ala Gly Leu Ala Met
1 5 10 15
Asn Thr Val Asp Ala Leu Ser Ile His Gly Gly His Cys Ala Asn Phe
20 25 30
Leu Asp Thr Gly Gly Lys Ala Thr Ser Glu Thr Val Lys Ser Ser Phe
35 40 45
Arg Ile Ile Arg Ser Asp Pro Arg Val Lys Ala Ile Phe Val Asn Ile
50 55 60
Phe Gly Gly Leu Thr Arg Cys Asp Met Ile Ala Glu Gly Ile Ile Met
65 70 75 80
Ala Phe Arg Asp Leu Glu Met Asn Val Pro Val Val Val Arg Leu Arg
85 90 95
Gly Thr Asn Glu Glu Ile Gly Gln Lys Met Val Ser Leu Val Pro Asp
100 105 110
Tyr Gly Ile Leu Asp
115

<210> 39460
<211> 94
<212> PRT
<213> A.fumigatus

<400> 39460
Leu Pro Val Ser Met Ala Asp Asn Gly Thr Pro Ser Glu Ala Pro Ala
1 5 10 15
Pro Pro Pro Val Glu His Leu Asn Ile Lys Val Thr Asp Asn Asn Asn
20 25 30
Glu Val Phe Phe Lys Ile Lys Arg Thr Thr Gln Leu Lys Lys Leu Met
35 40 45
Asp Ala Phe Cys Glu Arg Gln Gly Lys Gln Leu Ser Thr Val Arg Phe
50 55 60
Leu Phe Asp Gly Thr Arg Val Arg Pro Glu Asp Thr Pro Asp Ser Val
65 70 75 80

Arg Ala Ala Phe Pro Leu Ser Asp Val Tyr Ala Asn Ile Asp
85 90

<210> 39461
<211> 84
<212> PRT
<213> A.fumigatus

<400> 39461
Asp Thr Ala Ser Lys His Met Lys Pro Asn Ile Leu Ile His Pro Lys
1 5 10 15
Gln Gln Pro Ser Pro Ser Pro Pro Pro Leu Phe Ser Ser Pro Pro Pro
20 25 30
Pro Phe Pro Asp Ser Ala Gly Glu Ala Pro Ala Pro Leu Ser Pro Asp
35 40 45
His Thr Arg Ala Ala Pro Pro Ser Ser Leu Glu Pro Gly Ser Pro Thr
50 55 60
Arg Pro Gln Ser Ala Phe Pro Gln Gln Leu Ser Ala Ser Pro Ala Phe
65 70 75 80
Ser Pro Ala Thr

<210> 39462
<211> 197
<212> PRT
<213> A.fumigatus

<400> 39462
Asn Arg Phe Leu Arg Ser Asp Phe Ile Leu Lys Ile Gln Gln Thr Arg
1 5 10 15
Ala Cys Phe Ala Ala Leu Ala Leu Leu Leu Leu Leu Pro Pro Gly
20 25 30
Asn Pro Phe Leu Arg Gly Gly Gly Gly Leu Arg Leu Val Gly Ala Gly
35 40 45
Arg Ser Gly Gly Gly Gly Ser Leu Cys Ala Gly Gly Gly Leu Gly Gly
50 55 60
Ala Gly Phe Ala His Val Thr Gly Asn Val Phe Leu Gly Gly Arg Thr
65 70 75 80
Ile Arg Gly Arg Ser Ser Gly Arg Gly Val Gly Ser Arg Ala Glu Val
85 90 95
Arg Gly Asp Val Ser Ala Gly Ser Ala Arg Lys Leu Asp Leu Phe Leu
100 105 110
Arg Cys Leu Arg Gly Gly Arg Gly Arg Gly Ser Ala Gly Ser Leu Leu
115 120 125
Gly Ser Leu Ala Leu Ser Pro Ala Arg Ala Thr Ala Ser Thr Arg Asn
130 135 140
Glu Val Lys Ala Arg Ser Cys Pro Leu Asn Gly Pro Leu Glu Leu Ser
145 150 155 160
Ser Thr Gly Gly Arg Phe Cys Glu Ala Arg Leu Ser Ser Arg Thr Ala
165 170 175
Ser Leu Gly Phe Leu Leu Thr Leu Leu Leu Pro Leu Ser Asn Leu Val
180 185 190
Glu Ser Pro Val Leu
195

<210> 39463

<211> 734
<212> PRT
<213> A.fumigatus

<400> 39463

```
Ser Ile Arg Leu Ala Ala Gly Ala Asp Ala Leu Val Glu Leu Val Leu
1               5                  10                  15
Leu Leu Leu Glu Leu Gly Lys Leu Asp Gly Ala Gln Pro Val Gly Ile
            20                  25                  30
Gln Val Leu Gln Val Asn Leu Ala Asp Val Asp Ala Leu Asp Thr Thr
        35                  40                  45
Leu Lys Leu Leu Lys Leu Leu Leu Glu Leu Leu Leu Ala Asp Ala Leu
    50                  55                  60
Leu Phe Ile Pro Gln Thr Leu Leu Phe Ala Phe Pro Leu Leu Val Lys
65                  70                  75                  80
Gln Ser Leu Leu Leu Ser Leu Leu Gln Leu Leu Ile Thr Asn Thr Leu
                85                  90                  95
Ala Gly Leu Leu Leu Ser Leu Leu Ala Leu Gln Ser Ile Gly Gly Ser
            100                 105                 110
Phe Leu Leu Leu Leu Asp Glu Asp Thr Ala Gly Lys Gly Leu Leu Val
        115                 120                 125
Leu Leu Gly Ser Thr Ser Leu Gly Ala Gly Leu Gly Ser Leu Leu Gly
    130                 135                 140
Leu Asp Thr Gly Leu Val Ile Arg Arg Ile Asp Val His Ala Cys Asp
145                 150                 155                 160
Val Gln Gly Leu Gly Glu Thr Gly Glu Leu Gln Ala Gly Asp Phe Ser
                165                 170                 175
Arg Gly Val Leu Lys Thr Leu His Arg Ala Asp Leu Ala Leu Ser Arg
            180                 185                 190
Thr Gly Gly Ala Ala Gly Met Gln Ser Leu Gly Gly Arg Glu Asp Ile
        195                 200                 205
Gly Val Glu Gly Gln Asn Thr Cys Ser Met Val Asp Ala Asp Ser Glu
    210                 215                 220
Val Ala Leu Leu Ala Ser Val His Asp Glu Leu Leu Asp His Gly Arg
225                 230                 235                 240
Gly Asp Leu Glu Gly Ile Gly Glu Leu Cys Lys Leu Val Asp Lys Leu
                245                 250                 255
Glu Leu Asp Gly Phe Val Asn Leu Gly Gln Leu Leu Glu Glu Thr Gly
            260                 265                 270
Glu Asp Asp Leu Leu Gln Gly Gln Asp Val Leu Leu His Leu Gly Ile
        275                 280                 285
Gly Thr Asp Leu Leu Glu Asp Gly Gly Asp Leu Leu Ala Asp Gly Lys
    290                 295                 300
Arg Val Glu Val Asn Leu Glu Asp Val Val Glu Ile Pro Asn Phe Arg
305                 310                 315                 320
Thr Ser Thr Leu Glu Gln Ala Leu Ile Lys Ser Ile Pro Glu Lys His
                325                 330                 335
Arg Thr Ala Gly Trp Leu Ser His Thr Glu Gln Val Gly Gln Thr Gly
            340                 345                 350
Ile Leu Val Leu Ala Gly Leu Ile Asp Ile Asp Gln Gly Ala Ser Arg
        355                 360                 365
Ala Gly Gly Ala Asp Asp Gly Asp Arg Gln Ser Arg Gln Lys Asp Lys
    370                 375                 380
Gly Ser Gly Leu Gly His Val Ser Leu Gly His Arg Gly Val Leu Leu
385                 390                 395                 400
Leu Gly Ala Leu Ala Cys Gly Glu Arg Ser Gly Gly Leu Ala Glu Lys
```

```
                405                 410                 415
Val Val Val Ala Val Pro Ser Gly Gly Met Glu Lys Ile Val Leu Ala
            420                 425                 430
Asp Glu Glu Asp Pro Cys Lys Leu Phe Val Val Ile Ser His His Asp
        435                 440                 445
Val Leu Gly Gly Ala Leu Ala Lys Ala Glu Lys Ser Val Asn Val Phe
    450                 455                 460
Asn Ala Ala Glu Ser Leu Leu Pro Gln Leu Gln Leu His Gly Asn Ile
465                 470                 475                 480
Gln Leu Leu Glu Ala Gly Val Lys Met Ala Leu Gln Gly Val Gly Ile
                485                 490                 495
Ala Glu Val Asp Ser Val His Leu Ser Gly Val Leu Gly Gly Val Leu
            500                 505                 510
Asp Val Val Thr Glu Gln Leu Ala Lys Thr Ala Glu Leu Gly Leu Ala
        515                 520                 525
Gly Val Leu Glu Ala Lys Leu Glu Gly Leu Gln Gly Gly Gly Leu Val
    530                 535                 540
His Asp Leu Lys Ala Ser Ile Val Leu Gln Asp Leu Gln Asp Gly Thr
545                 550                 555                 560
Val Gly Leu Pro Glu Lys Leu Glu Pro Arg Ser Asp Asn Ser Ala Val
                565                 570                 575
Gly Ser Val Ala Arg Leu Phe Ala Arg Asn Ser Ser Lys Gln Asp Gly
            580                 585                 590
Leu Gly Gly Leu Asp Arg Phe Gln Ile Leu Asp Val Gly Arg Trp Gly
        595                 600                 605
Ser Gly Leu Gln Arg Gly Leu Asp Leu Val Gly Leu Gly Leu Gly Leu
    610                 615                 620
Gly His Leu Leu Leu Gly Glu Phe Asp Glu Leu Leu Glu Asp Asp Leu
625                 630                 635                 640
Phe Ser Ser Thr Asn Ile Ser Arg Cys Lys Ser His His Lys Ser Glu
                645                 650                 655
Lys Val Leu Ser Leu Pro Arg Trp Phe Pro Arg Trp Cys Ser Gly Arg
            660                 665                 670
Cys Ser Cys Thr Gly Arg Asp His Pro Trp Gln Pro Phe Leu Cys Gln
        675                 680                 685
Arg Ser Thr His Asn Ser Thr Lys Arg Ser Met Thr Gly Ser Arg Glu
    690                 695                 700
Ala Ile Gly Leu Leu Arg Val Leu Leu Glu Val Thr Cys Ser Trp Arg
705                 710                 715                 720
Thr Leu Arg Ala Ala Gly Ala Trp Pro Thr Ala Ile Ser Ser
                725                 730
```

<210> 39464
<211> 68
<212> PRT
<213> A.fumigatus

<400> 39464

```
Tyr Arg Arg Phe Gln Gln Lys Asn Tyr Gly Phe His Thr Val Gln Ile
1               5                   10                  15
Leu Lys Leu Asp His Cys Arg Gly Thr Pro Pro Leu Leu Ser Ala Gly
            20                  25                  30
Ser Thr Ile Tyr Phe Trp Ser Gln Tyr Gly Ser Thr Gln Lys Phe Ile
        35                  40                  45
Pro His Lys Ser Glu Asn Gly Leu Val Leu Ala Lys Val Gly Pro Trp
    50                  55                  60
```

Leu Asn His Ser
65

<210> 39465
<211> 91
<212> PRT
<213> A.fumigatus

<400> 39465
Pro Cys Val Leu Ser Leu Gln Arg Ala Gln Glu Leu Ile Ala Val Gly
1 5 10 15
Gln Ala Pro Ala Ala Leu Asn Val Leu His Glu His Val Thr Ser Lys
20 25 30
Arg Thr Arg Ser Ser Pro Ile Ala Ser Leu Glu Pro Val Met Leu Leu
35 40 45
Phe Val Glu Leu Cys Val Asp Leu Trp Gln Arg Lys Gly Cys Gln Gly
50 55 60
Trp Ser Leu Pro Val Gln Glu His Arg Pro Glu His Gln Arg Gly Asn
65 70 75 80
His Arg Gly Arg Leu Arg Thr Phe Ser Asp Leu
85 90

<210> 39466
<211> 410
<212> PRT
<213> A.fumigatus

<400> 39466
Gly Met Asn Arg Ser Ala Ser Ala Ser Arg Ser Ser Arg Ser Ser Leu
1 5 10 15
Arg Ser Leu Arg Val Val Ser Arg Ala Ser Thr Ser Ala Arg Leu Thr
20 25 30
Trp Arg Thr Trp Met Pro Thr Gly Cys Ala Pro Ser Ser Leu Pro Ser
35 40 45
Ser Arg Arg Arg Arg Thr Ser Ser Thr Ser Ala Ser Ala Pro Ala Ala
50 55 60
Lys Arg Ile Asp His Leu Glu Arg Ala Phe Arg Arg Glu Glu Leu Lys
65 70 75 80
His Ile Pro Glu Asp Tyr Glu Ala Gln Lys Lys Arg Asp Met Glu Leu
85 90 95
Tyr Glu Ala Ile Lys Ala Glu Thr Leu Lys Glu Ala Glu Glu Lys His
100 105 110
Lys Glu Ala Val Ala Leu Lys His Arg Leu Ser Arg Leu Val Pro Val
115 120 125
Phe Ser Ser Phe Arg Lys Glu Val Ser Glu Lys Arg His Glu Glu Phe
130 135 140
Glu Lys Arg Arg Lys Ala Ala Glu Arg Glu Phe Glu Ala Lys Lys Lys
145 150 155 160
Gln Arg Ile Lys Glu Val Gln Glu Arg Arg Arg Arg Glu Arg Ala Glu
165 170 175
Arg Glu Ala Glu Glu Arg Arg Arg Lys Glu Glu Glu Glu Arg Ala Lys
180 185 190
Arg Glu Glu Glu Glu Arg Ile Ala Lys Glu Glu Glu Arg Arg Arg Ile
195 200 205
Leu Ala Glu Glu Lys Ala Lys Arg Glu Glu Glu Arg Lys Ser Val Ser
210 215 220

```
Pro Pro Val Leu Ser Ile Cys Pro Asn Gly Thr Asn Leu Gln Tyr Arg
225                 230                 235                 240
Arg Leu Asp Glu Ile Ala Gln Arg Gln Lys Gln Arg Glu Glu Glu Ala
                245                 250                 255
Glu Ala Arg Arg Ala Ala Arg Lys Ser Gly Leu Ala Glu Pro Pro Thr
            260                 265                 270
Arg Ala Ala Glu Leu Glu Arg Pro Val Glu Arg Thr Ala Pro Arg Leu
        275                 280                 285
Asn Leu Val Ser Arg Thr Gly Ser Gly Pro Ser Trp Arg Glu Arg Gln
    290                 295                 300
Ala Ala Lys Glu Ala Ala Gly Ala Ala Pro Ala Pro Ala Ala Ala Glu
305                 310                 315                 320
Ala Pro Lys Glu Glu Val Gln Leu Pro Arg Arg Thr Gly Gly Tyr Val
                325                 330                 335
Pro Pro His Leu Arg Ser Gly Ala Asn Ala Ser Pro Ala Thr Pro Pro
            340                 345                 350
Ser Asn Gly Pro Ala Pro Glu Lys Tyr Val Pro Arg His Met Arg Glu
        355                 360                 365
Ser Ser Ser Ser Gln Pro Pro Ser Arg Thr Gln Thr Pro Pro Ala Ala
    370                 375                 380
Ala Pro Ala Ser Ser Asp Lys Pro Glu Ala Ser Pro Ala Pro Gln Lys
385                 390                 395                 400
Trp Val Pro Arg Trp Lys Gln Gln Gln Gln
                405                 410
```

<210> 39467
<211> 84
<212> PRT
<213> A.fumigatus

<400> 39467

```
Asn Leu Asn Ser Val Glu Ala Ile Val Leu Leu Leu Lys Ala Thr Val
1               5                   10                  15
Ser Glu Arg Leu Asp Ile Trp Gly Ser Leu Lys Gln Ile Glu Asn Val
            20                  25                  30
Tyr His Leu Glu Ser Thr Tyr Ile His Leu Arg Phe Asp Ala Phe Leu
        35                  40                  45
Met Tyr Gly Leu Ser Met Leu Lys Tyr Leu Thr Trp Thr Pro His Gln
    50                  55                  60
Arg Leu Glu Cys Lys Asn Val Ser Glu Leu Ser Leu Met Tyr Leu Thr
65                  70                  75                  80
Ile Arg Ser Thr
```

<210> 39468
<211> 316
<212> PRT
<213> A.fumigatus

<400> 39468

```
Arg Lys Pro Arg Arg Ser Thr Arg Arg Arg Leu Pro Leu Ser Thr Val
1               5                   10                  15
Ser Ala Ala Leu Phe Pro Ser Ser Pro Ala Ser Ala Arg Arg Cys Arg
            20                  25                  30
Arg Ser Ala Thr Lys Ser Leu Arg Ser Ala Ala Arg Pro Pro Ser Gly
        35                  40                  45
```

```
Ser Leu Arg Pro Arg Arg Ser Ser Val Ser Arg Lys Phe Arg Ser Ala
    50                  55                  60
Ala Val Ala Arg Gly Pro Ser Val Arg Gln Lys Ser Ala Ala Glu Arg
65                  70                  75                  80
Arg Lys Lys Ser Gly Pro Asn Ala Lys Arg Lys Asn Val Ser Pro Arg
                85                  90                  95
Lys Arg Ser Ala Asp Ala Ser Trp Leu Lys Arg Lys Pro Asn Val Arg
            100                 105                 110
Lys Arg Glu Ser Leu Cys Leu Pro Gln Phe Tyr Gln Phe Val Leu Met
        115                 120                 125
Val Leu Thr Tyr Asn Thr Gly Asp Ser Thr Arg Leu Leu Ser Gly Arg
    130                 135                 140
Ser Ser Val Arg Arg Lys Pro Arg Leu Ala Val Arg Leu Glu Ser Leu
145                 150                 155                 160
Ala Ser Gln Asn Leu Pro Pro Val Leu Leu Ser Ser Ser Gly Pro Leu
                165                 170                 175
Ser Gly Gln Leu Leu Ala Leu Thr Ser Phe Leu Val Leu Ala Val Ala
            180                 185                 190
Leu Ala Gly Glu Ser Ala Arg Leu Pro Arg Arg Leu Pro Ala Leu Pro
        195                 200                 205
Leu Pro Leu Pro Pro Arg Arg His Leu Arg Lys Arg Ser Ser Phe Leu
    210                 215                 220
Ala Glu Pro Ala Asp Thr Ser Pro Leu Thr Ser Ala Leu Glu Pro Thr
225                 230                 235                 240
Pro Arg Pro Leu Leu Leu Pro Arg Met Val Leu Pro Pro Arg Asn Thr
                245                 250                 255
Phe Pro Val Thr Cys Ala Asn Pro Ala Pro Pro Asn Pro Pro Pro Ala
            260                 265                 270
His Arg Leu Pro Pro Pro Pro Leu Leu Pro Ala Pro Thr Ser Leu Arg
        275                 280                 285
Pro Pro Pro Pro Leu Arg Asn Gly Phe Pro Gly Gly Ser Asn Asn Ser
    290                 295                 300
Ser Arg Ala Ser Ala Ala Lys Gln Ala Leu Val Cys
305                 310                 315
```

<210> 39469
<211> 663
<212> PRT
<213> A.fumigatus

<400> 39469

```
Val Val Leu Lys Lys Phe Ile Glu Leu Ala Glu Lys Lys Val Thr Glu
1               5                   10                  15
Ala Gln Ala Lys Ala Asp Glu Ile Gln Ser Ser Leu Glu Ser Ala Ala
            20                  25                  30
Pro Ser Ser Asn Val Glu Asp Leu Glu Ala Ile Glu Thr Pro Glu Thr
        35                  40                  45
Ile Leu Leu Ala Thr Val Ser Gly Glu Gln Ser Arg Asp Arg Thr Asp
    50                  55                  60
Arg Ala Val Val Thr Pro Trp Leu Lys Phe Leu Trp Glu Thr Tyr Arg
65                  70                  75                  80
Thr Val Leu Glu Ile Leu Lys Asn Asn Ala Arg Leu Glu Val Met Tyr
                85                  90                  95
Gln Thr Thr Ala Leu Gln Ala Phe Gln Phe Cys Leu Lys Tyr Thr Arg
            100                 105                 110
Lys Thr Glu Phe Arg Arg Leu Cys Glu Leu Leu Arg Asn His Val Gln
```

```
        115                 120                 125
Asn Ala Ala Lys Tyr Ser Ala Gln Met His Ala Ile Asn Leu Ser Asp
    130                 135                 140
Pro Asp Thr Leu Gln Arg His Leu Asp Thr Arg Phe Gln Gln Leu Asn
145                 150                 155                 160
Val Ala Val Glu Leu Glu Leu Trp Gln Glu Ala Phe Arg Ser Ile Glu
                165                 170                 175
Asp Ile His Thr Leu Leu Ser Leu Ser Lys Arg Pro Ala Lys Asn Val
            180                 185                 190
Met Met Ala Asn Tyr Tyr Glu Lys Leu Ala Arg Ile Phe Leu Val Ser
        195                 200                 205
Glu Asn Tyr Leu Phe His Ala Ala Ala Trp Asn Arg Tyr Tyr Asn Leu
    210                 215                 220
Leu Arg Gln Ser Ala Ala Ala Leu Ala Ala Gly Gln Gly Thr Lys Lys
225                 230                 235                 240
Glu Asn Pro Ser Val Thr Glu Ala Asp Met Thr Lys Ala Ala Ser Phe
                245                 250                 255
Val Leu Leu Ser Ala Leu Ser Ile Pro Val Ile Ser Thr Ser Arg Ser
            260                 265                 270
Arg Gly Ala Leu Val Asp Val Asp Glu Ala Arg Lys Asn Lys Asn Ala
        275                 280                 285
Arg Leu Thr Asn Leu Leu Gly Met Ala Gln Pro Pro Ser Arg Ala Val
    290                 295                 300
Leu Phe Arg Asp Ala Leu Asn Lys Gly Leu Leu Lys Arg Ala Arg Pro
305                 310                 315                 320
Glu Ile Arg Asp Leu Tyr Asn Ile Leu Glu Val Asp Phe His Pro Leu
                325                 330                 335
Ser Ile Cys Lys Lys Ile Thr Pro Ile Leu Lys Gln Ile Gly Ala Asp
            340                 345                 350
Pro Glu Met Glu Lys Tyr Val Leu Pro Leu Gln Gln Val Ile Leu Thr
        355                 360                 365
Arg Leu Phe Gln Gln Leu Ser Gln Val Tyr Glu Ser Val Glu Leu Lys
    370                 375                 380
Phe Val Tyr Glu Leu Ala Gln Phe Pro Asp Pro Phe Gln Ile Thr Pro
385                 390                 395                 400
Ala Met Ile Glu Lys Phe Ile Met Asn Gly Cys Lys Lys Gly Asp Leu
                405                 410                 415
Ala Ile Arg Val Asp His Thr Ala Gly Val Leu Thr Phe Asp Thr Asp
            420                 425                 430
Ile Phe Ser Ser Ala Lys Ala Leu His Ser Gly Ser Ala Ala Gly Ser
        435                 440                 445
Ala Glu Ser Glu Val Gly Ser Val Gln Arg Leu Gln Asn Thr Pro Ala
    450                 455                 460
Glu Ile Ala Arg Leu Gln Leu Thr Arg Leu Ala Lys Thr Leu His Val
465                 470                 475                 480
Thr Cys Met Tyr Val Asp Pro Ser Tyr Asn Glu Ala Arg Ile Gln Ala
                485                 490                 495
Lys Lys Ala Ala Gln Ala Arg Ala Glu Ala Gly Ala Ala Lys Glu His
            500                 505                 510
Glu Glu Thr Leu Ala Arg Arg Val Leu Ile Glu Lys Lys Lys Glu Ala
        515                 520                 525
Ala Thr Asp Ala Leu Gln Arg Lys Gln Arg Glu Glu Glu Thr Arg Lys
    530                 535                 540
Arg Ile Arg Asn Gln Gln Leu Gln Glu Ala Glu Lys Gln Arg Leu Leu
545                 550                 555                 560
Asp Glu Gln Arg Glu Arg Glu Lys Lys Arg Leu Arg Asp Glu Gln Glu
```

```
                565                 570                 575
Arg Ile Arg Gln Gln Glu Leu Lys Lys Gln Leu Glu Glu Leu Lys Ser
            580                 585                 590
Gly Val Lys Gly Ile Asp Ile Ser Glu Ile Asp Leu Glu Asp Leu Asp
        595                 600                 605
Ala Asn Arg Leu Arg Ala Ile Lys Leu Ala Gln Leu Glu Lys Glu Lys
    610                 615                 620
Asn Glu Leu Asn Glu Arg Ile Arg Thr Ser Cys Gln Ala Tyr Arg Ser
625                 630                 635                 640
Pro Gly Ala Cys Phe Pro Ser Arg Gly Val Glu Ala His Ser Arg Gly
                645                 650                 655
Leu Arg Ser Pro Glu Glu Ala
            660
```

<210> 39470
<211> 159
<212> PRT
<213> A.fumigatus

<400> 39470

```
Leu Val Ala Thr Ala Thr Thr Cys Glu Arg Ser Arg Asp Pro Ser Leu
1               5                   10                  15
Gln Asn Ser Pro Ala Ala Phe Gln Phe Ala Ser Ser Asp Asp Leu Asn
            20                  25                  30
Trp Phe Ser Thr His Asn Cys Thr Thr Ile Asp Asp Asp Ile Thr Leu
        35                  40                  45
Leu Glu Ser Phe Asn Gly Ser Phe Ser Leu Pro Asp Val Thr Ser Ile
    50                  55                  60
Arg Gly Ile Ile Thr Tyr Thr Gly Pro Thr Glu Thr Phe Lys Leu Thr
65                  70                  75                  80
Ser Ile Ser Leu Pro Asp Val Leu Tyr Leu Gly Gly Met Asn Val Asp
                85                  90                  95
Leu Pro Gly Ser Gln Lys Ile Ile Asn Val Ser Ala Pro Lys Val Thr
            100                 105                 110
Ala Ile Asp Ser Ile Asn Leu Ala Val Pro Ser Thr Ala Ala Ile Asp
        115                 120                 125
Phe Arg Ser Leu Lys Gln Ala Thr Ser Ile Ser Leu Thr Gly Asn Tyr
    130                 135                 140
Ser Arg Tyr Ser Val Cys Ser Cys Asn Val Gln Gln Thr Pro Asp
145                 150                 155
```

<210> 39471
<211> 71
<212> PRT
<213> A.fumigatus

<400> 39471

```
Ala Gly Ser Tyr Ser Thr His Gln Thr Tyr Tyr His Ser Asn Glu Tyr
1               5                   10                  15
Ala Pro Gln Ala Asn Pro Thr Thr Tyr Ile Tyr Asn Gln Gly Lys Gly
            20                  25                  30
Asp Gly Arg Ala Val Ser Pro Ser Pro Asp Ile Ser Phe Val Leu Ala
        35                  40                  45
Leu Cys Gln Arg Phe Thr Thr Trp Asp Leu Tyr Arg Ile Thr Ile Tyr
    50                  55                  60
Ser Gly Ala Ser Cys Gly Leu
```

65 70

<210> 39472
<211> 65
<212> PRT
<213> A.fumigatus

<400> 39472
Arg Ser Gly Gly Pro Ser Glu Glu Asn Met Thr Met Asp Gly Gln Asp
1 5 10 15
Lys Thr Glu Gln Ala Asp Asp Tyr Arg Ser Val Ser Glu Leu Gly Tyr
20 25 30
Val Val Val Tyr His Tyr Cys Val Trp Ser Lys Tyr Pro His Ser Arg
35 40 45
Leu Pro Arg Leu Phe Ala Leu Leu Ala Arg Val Glu Phe Leu Ser Trp
50 55 60
Asn
65

<210> 39473
<211> 737
<212> PRT
<213> A.fumigatus

<400> 39473
Gly Arg Val Ser Phe Gln Ser Arg Ser Val Lys Asn Thr Ala Leu Glu
1 5 10 15
Asn Asn Gly Leu Glu Asp Ile Arg Arg Gly Leu Asp Asn Leu Gly Ser
20 25 30
Thr Gly Trp Thr Ile Asn Arg Glu Val Leu Asn Val Met Leu Glu Ala
35 40 45
Trp Asn Ser Gly Glu Ala Val Ala Asn Leu Ala Pro Leu Glu Pro Asp
50 55 60
Leu Pro Leu Pro Pro Lys Pro Ala Pro Glu Ala Gly Tyr His Ala Glu
65 70 75 80
Lys Glu Trp Asp Thr Leu Val Arg Glu Ile Glu Asn Arg Arg Ser Gly
85 90 95
Leu His Ser Met Arg Cys Phe Gln Asn Phe Gln Met Glu Leu Ala Arg
100 105 110
Ala Tyr Arg Asn Val Thr Phe Tyr Leu Pro His Asn Met Asp Phe Arg
115 120 125
Gly Arg Ala Tyr Pro Leu Pro Pro Tyr Leu Asn Gln Met Gly Ala Asp
130 135 140
Asn Ser Arg Gly Leu Leu Leu Phe Ser Glu Ala Lys Pro Leu Gly Ala
145 150 155 160
Ser Gly Leu Arg Trp Leu Lys Ile Gln Ile Ala Asn Leu Ser Gly Phe
165 170 175
Asp Lys Ala Ser Met Ser Glu Arg Glu Gln Phe Thr Met Asp His Leu
180 185 190
Asp Asp Val Leu Asp Ser Ala Asp Lys Gly Leu His Gly Arg Arg Trp
195 200 205
Trp Leu Lys Ala Glu Asp Pro Trp Gln Cys Leu Ala Ala Cys Cys Glu
210 215 220
Leu Arg Asn Ala Leu Arg His Pro Asp Pro Thr Gln Tyr Pro Ser Arg
225 230 235 240
Leu Pro Ile His Gln Asp Gly Ser Cys Asn Gly Leu Gln His Tyr Ala

```
                245                 250                 255
Ala Leu Gly Gly Asp Ser Val Gly Ala Gln Gln Val Asn Leu Glu Pro
            260                 265                 270
Ser Asp Arg Pro Ser Asp Val Tyr Thr Gly Val Ala Glu Phe Val Lys
        275                 280                 285
Lys Glu Val Ala Arg Glu Ala Ala Gln Gly His Pro Ile Ala Lys Ile
    290                 295                 300
Leu Asp Gly Arg Ile Thr Arg Lys Ile Val Lys Gln Thr Val Met Thr
305                 310                 315                 320
Asn Val Tyr Gly Val Thr Phe Met Gly Ala Met Arg Gln Val Arg Lys
                325                 330                 335
Gln Leu Ile Asp His Tyr Pro Asp Leu Ser Tyr Glu Asp Lys Lys Asn
            340                 345                 350
Gly Ser Leu Tyr Ile Ala Arg Lys Ile Phe Glu Ala Leu Gly Thr Met
        355                 360                 365
Phe Asn Gly Ala His Glu Ile Gln His Trp Leu Gly Asp Cys Ala Ser
    370                 375                 380
Arg Ile Thr Thr Ser Leu Ser Pro Glu Gln Ile Glu Gln Ile Ala Lys
385                 390                 395                 400
Glu Ala Leu Thr Pro Ser Ser Ser Gly Arg Ser Ala Ala Lys Leu Lys
                405                 410                 415
Asp Pro Ser Glu Lys Phe Arg Ser Thr Val Ile Trp Thr Thr Pro Leu
            420                 425                 430
Gly Leu Pro Val Val Gln Pro Tyr Arg Val Arg Lys Ala Arg Arg Ile
        435                 440                 445
Thr Thr Thr Leu Gln Asp Leu Ser Ile Val Asp Thr Asn Ser Glu Asp
    450                 455                 460
Val Val Ser Lys Arg Lys Gln Leu Gln Ala Phe Pro Pro Asn Phe Ile
465                 470                 475                 480
His Ser Leu Asp Ala Thr His Met Ile Met Ser Ala Asn Ala Cys Asn
                485                 490                 495
Gln Ala Gly Leu Thr Phe Ser Ala Val His Asp Ser Phe Trp Thr His
            500                 505                 510
Ala Cys Asp Val Asp Thr Met Asn Gln Ile Leu Arg Glu Ala Phe Val
        515                 520                 525
Arg Met His Ser Asp Asp Ile Ile Arg Arg Leu Ala Ser Glu Phe Gln
    530                 535                 540
Val Arg Tyr Gly Gln Asn Leu Phe Leu Ala Lys Val Asp Ala Gly Thr
545                 550                 555                 560
Lys Ile Gly Arg Ala Ile Arg Asp Phe Arg Lys Gly Gly Lys Lys Lys
                565                 570                 575
Ser Gly Lys Val Gln Glu Leu Leu Asp Glu Tyr Lys Arg Gln Gln Leu
            580                 585                 590
Leu Arg Ser Asp Asp Pro Glu Leu Gln Ala Gln Gly Arg Ala Met Val
        595                 600                 605
Thr Ala Gly Ser Val Phe Glu Gln Leu Gly Gly Thr Asp Lys Asp Leu
    610                 615                 620
Ala Ile Ala Ser Ser Leu Gly Glu Ser Ala Val Gly His Ile Pro Glu
625                 630                 635                 640
Asp Leu Ala Ala Ala Glu Arg Lys Thr Pro Gly Leu Gly Ile Asp Thr
                645                 650                 655
Ser Asp Pro Ala Ile Glu Ser Leu Phe Ser Asp Phe Gln Asp Leu Glu
            660                 665                 670
Pro Arg Gly Gly Glu Ala Asp Lys Ala Thr Gly Ala Glu Leu Glu Asp
        675                 680                 685
Glu Met Val Ala Glu Asp Gly Ala Gly Lys Lys Lys Lys Lys Val Arg
```

690 695 700
Gln His Val Trp Leu Trp Leu Pro Leu Arg Phe Arg Asp Val Pro Ala
705 710 715 720
Lys Gly Ala Trp Asp Leu Thr Arg Ile Arg Asp Ser Gln Tyr Phe Phe
725 730 735
Ser

<210> 39474
<211> 64
<212> PRT
<213> A.fumigatus

<400> 39474
Ser Leu Ser Ser Pro Pro Pro Pro Phe Ile His Ser Phe Phe Phe Phe
1 5 10 15
Phe Phe Ile Tyr Phe Tyr Tyr Tyr Tyr Leu Ile Ser Ala Phe Tyr Pro
20 25 30
Phe Pro Ser Leu Phe Leu Phe Leu Leu Gly Leu Leu His Leu Cys Phe
35 40 45
Leu Ser Ser Trp Phe Leu Val Pro Leu Phe Phe Leu Gln Glu Ala Leu
50 55 60

<210> 39475
<211> 98
<212> PRT
<213> A.fumigatus

<400> 39475
Val Trp Arg Lys Arg Arg Glu Tyr Asp Lys Thr Glu Arg Asp Asp Arg
1 5 10 15
Leu Asp Asp Ile Glu Asp Ser Ser Pro Leu Arg Cys Gly Arg Ser Ala
20 25 30
Thr His Thr Val Phe Gly Val Gly His Arg Ile Asn Ser Ala Ser Phe
35 40 45
Leu Leu Ile Gln Ala Ala Gly Gln Val Arg Arg Leu Asp Asp Ser Gln
50 55 60
Cys Met Asn Ile Phe Met Asp Glu Cys Gly Val Leu Ser Val Val Arg
65 70 75 80
Ala Leu Ile Cys Ile Gly Arg Asp Arg Gly Ser Val Pro Arg Arg Thr
85 90 95
Ile Trp

<210> 39476
<211> 86
<212> PRT
<213> A.fumigatus

<400> 39476
Trp Leu Pro Arg Arg Arg Val Ser Ile Asp Ser Asn Ser Met Ile Thr
1 5 10 15
Leu Ala Arg Ile Arg Leu Val Pro Arg Val Glu Arg Thr Val Trp His
20 25 30
Ser Val Ser Ser Arg Thr Met Ser Phe Ala Leu Met Phe Asn Tyr Ala
35 40 45

```
Ile Ala Asn Leu Pro Asn Gln Ser Thr Lys Lys Gly Ile His Thr Asn
    50                  55                  60
Asp Leu Val Ala Asp Ser Thr Thr Tyr Tyr Met Asn Ala Ser Ala Ala
65                  70                  75                  80
His Gln Ser Arg Gln Cys
                85
```

<210> 39477
<211> 156
<212> PRT
<213> A.fumigatus

<400> 39477

```
Trp Ile Ser Val Pro Gly Ala Leu Met Ala Gln Val Tyr Phe Ile His
1               5                  10                  15
Ser Thr Ile Asn Ser Ser Asp Ala Thr Ser Glu Thr Trp Pro Val Thr
            20                  25                  30
Val Ala Ser Gln Leu Val Gln Cys Leu Ser Ile Val Thr Ala Ser Ala
        35                  40                  45
Pro Gln Phe Ile Pro Phe Leu Lys Gln Leu Gln Ser Thr Gly Met Arg
    50                  55                  60
Leu Asp Gly Met Thr Arg Tyr Thr Leu Ser Ser His His Lys Ser Ser
65                  70                  75                  80
Arg Gly Arg Tyr Tyr Leu Ser Thr Asp Arg Arg Arg Thr Gly Asn Glu
                85                  90                  95
Ser Thr His Glu Leu Asp Asn Ile Pro Leu Ala Thr Thr Lys Thr Val
            100                 105                 110
Val Thr Ser Asn Ala Asn Gly Leu Glu Glu Asp His Asp Asn Glu Ser
        115                 120                 125
Gln Ser Ser Gln Thr Gly Ile Ile Arg Glu Thr Arg Thr Trp Thr Val
    130                 135                 140
Thr Glu Glu His Thr Cys Leu Pro Gly His Asn Gly
145                 150                 155
```

<210> 39478
<211> 176
<212> PRT
<213> A.fumigatus

<400> 39478

```
Tyr Arg Ala Pro Arg Thr Ser Phe Phe Leu Arg Ile Arg Ser Ser Ser
1               5                  10                  15
Pro Ile Ser Val Ser Asp Arg Arg Gly Thr Pro Cys Lys Phe Cys Val
            20                  25                  30
Thr Leu Ser Leu Val Val Pro Pro Gly Ile Gly Met Met Val Gly Ile
        35                  40                  45
Pro Gly Leu Pro Leu Arg Val Ser Ile Gln Ala Lys Ala Ile Trp Ala
    50                  55                  60
Gly Ala Thr Pro Leu Arg Glu Ala Arg Ser Leu Thr Ser Leu Thr Ser
65                  70                  75                  80
Leu Met Leu Cys Phe Ile Ala Ser Ser Trp Tyr Leu Gly Ser Asp Phe
                85                  90                  95
Arg Lys Ser Pro Ser Gly Ile Ser Asp Thr Leu Val Lys Ala Pro Ala
            100                 105                 110
Ser Thr Pro Arg Pro Arg Gly Glu Tyr Ala Thr Arg Gly Ile Pro Ser
        115                 120                 125
```

```
Ser Ala Gln Val Ser Ala Thr Pro Ser Phe Arg Val Trp Val Ser Gln
    130                 135                 140
Arg Glu Ser Ser Ile Ser Thr Ala Ala Ile Gly Trp Thr Leu Cys Leu
145                 150                 155                 160
Phe Pro Val Val Ser Asn Ser Val Asp Gln Ala Leu Ala Thr Arg Lys
                165                 170                 175

<210> 39479
<211> 70
<212> PRT
<213> A.fumigatus

<400> 39479
Arg Phe Val Ala Ser Phe Met Val His Pro Thr Ser Asp Ala Asp Pro
1               5                   10                  15
Asp Gly Leu Ser Cys Leu Ile Thr Gly Val Thr Ala Arg Pro Asn Gly
            20                  25                  30
Ala His Thr Val Pro Leu Cys Pro Ser Ser Thr Tyr Phe Tyr Glu Leu
        35                  40                  45
Ala Gly Arg Arg Gly Gly Tyr Arg Glu Gly Glu Ile Cys Asp Tyr Pro
    50                  55                  60
Gly Phe Ser Leu Ser Asp
65                  70

<210> 39480
<211> 244
<212> PRT
<213> A.fumigatus

<400> 39480
Arg Pro Pro Trp Asn Gly Val Pro Asp Pro Val Pro Asn Trp Pro Arg
1               5                   10                  15
Ile Trp Thr Leu Val Ile Ser Ser Ser Leu Glu Glu His Arg Val Glu
            20                  25                  30
Lys Lys Asn Glu Arg Ala Asn Pro Asp Asp Lys Thr Thr Lys Thr Pro
        35                  40                  45
Gly Ala Val His Leu Val Arg Arg Val Glu Tyr Leu Leu Ser Val Leu
    50                  55                  60
Arg Asp Lys Leu Thr Asn Gly Thr Asn Ala Ser Ala Arg Arg Ala Val
65                  70                  75                  80
Glu Asn His His Arg Asn His Arg Ser Thr Ala Arg Thr Asn Val Ser
                85                  90                  95
Ala Ser Val Ser Ala Ser Pro Ala Pro Ser Ile Pro Arg Lys Gly His
            100                 105                 110
Arg Glu Ala Asp Arg Ser Arg His Arg Ser Gln Thr His Gly Ala Arg
        115                 120                 125
Asp Ser Val Glu Arg Asn His Thr Pro Gly Arg Asp Ser Arg Pro Lys
    130                 135                 140
Ser Val Gln Glu Asn Asp Arg Arg Arg Lys Leu Ser Asp Ala Ser Ser
145                 150                 155                 160
Glu Asp Ile Arg Arg Arg Lys Ser Ser Glu Arg Lys Ser Ser Asp Asn
                165                 170                 175
Gly Asn Ser Asp Glu Met Leu Arg Leu Leu Phe Lys Pro Ile Leu Ser
            180                 185                 190
Ser Leu Glu Arg Val Ser Gly Leu Thr Arg Asp Ser Met Thr Ser Lys
        195                 200                 205
```

```
Ala Arg Arg Ala Ser Glu Leu Arg Asn Leu Leu Gly Tyr Ile Gly Gly
    210                 215                 220
Phe Ile Arg Lys Thr Leu Lys Gly Glu Asn Tyr Met Pro Ser Leu Glu
225                 230                 235                 240
Ile Arg Leu Trp
```

<210> 39481
<211> 242
<212> PRT
<213> A.fumigatus

<400> 39481

```
Cys Asn Lys Ser Leu Leu Met Phe Phe Lys Leu Thr Glu Gly Arg Arg
1               5                  10                  15
Ser Ile Asn Thr Ser Pro Phe Leu Ile Phe Cys Val Ser Gln Ile Ala
            20                  25                  30
Glu Leu His Leu Gly Ala His Thr Pro Val Lys Arg Lys Arg Lys Gly
        35                  40                  45
Lys Glu Lys Gly Lys Lys Asp Ala Val Ser Arg Trp Lys Arg Ser Arg
    50                  55                  60
Pro Tyr Gly Val Arg His Asp Glu Tyr Val Ile Asn Ser Arg Leu Tyr
65                  70                  75                  80
Thr Gln Leu Asn Pro Leu Leu Thr Arg Thr Gly Met Thr Trp Ala Pro
                85                  90                  95
Gln Leu Pro Ser Glu Glu Lys Cys Phe Glu Thr Leu Asn Thr Ala Leu
            100                 105                 110
Ala Leu Gly Ala Asn Phe Trp Asn Gly Gly Glu Leu Tyr Gly Thr Pro
        115                 120                 125
Glu Tyr Asn Ser Leu His Leu Leu Asn Lys Tyr Phe Thr Lys Tyr Pro
    130                 135                 140
Glu Asn Ala Asp Lys Val Val Leu Ser Ile Lys Gly Gly Leu Lys Pro
145                 150                 155                 160
Gly Glu Leu Val Pro Asp Gly Ser Glu Glu Asn Ile Arg Arg Ser Val
                165                 170                 175
Asp Glu Cys Leu Arg Val Leu Asp Gly Lys Lys Thr Ile Asp Ile Phe
            180                 185                 190
Glu Cys Ala Arg Gln Asp Pro Asn Thr Thr Val Glu Gln Thr Val Thr
        195                 200                 205
Ile Leu Ala Gln Leu Val Lys Glu Gly Lys Ile Lys Gly Ile Gly Leu
    210                 215                 220
Ser Glu Val Asn Ala Glu Thr Ile Arg Arg Ala Tyr Val Leu Leu Ser
225                 230                 235                 240
Ser Cys
```

<210> 39482
<211> 211
<212> PRT
<213> A.fumigatus

<400> 39482

```
His Phe Pro Pro Glu Cys Asp Arg Ser Phe Thr Arg Ser Asp Ala Leu
1               5                  10                  15
Ala Lys His Met Arg Thr Val His Glu Thr Glu Ala Leu Arg Pro Ser
            20                  25                  30
```

```
Asp Pro Val Pro Lys Gly His Asn Val Pro Ala Ser Ala Val Gly Thr
        35                  40                  45
Pro Thr Gly Thr Pro Val Ser Lys Leu Gln Arg Ile Arg Leu Lys Leu
    50                  55                  60
Ser Gln Pro Lys Asp Glu Thr Asp Arg Leu Ser Glu Ile Ala Asn Asp
65                  70                  75                  80
Asp Ala Val Val Ala Glu Asp Leu Asp Glu Leu Glu Leu Pro Glu Phe
                85                  90                  95
Gly Pro Glu Ile Gly Phe Asp Glu His Glu Leu Gln Leu Arg Pro Tyr
            100                 105                 110
Asp Leu Tyr Arg Leu Leu Arg Arg Gln Ile His Trp Ala Glu Lys Glu
        115                 120                 125
Gly Gln Glu Leu Lys Glu Glu Trp Glu Lys Ile Arg Pro Lys Arg Lys
    130                 135                 140
Gln Ala Trp Leu Glu Lys Glu Ser Ile Phe Asp Asp Val Ile Asp Ala
145                 150                 155                 160
Glu Leu Arg Leu Phe Ser Ala Ile Val Ala Thr Glu Gly Leu Pro Thr
                165                 170                 175
Glu Ser Gly Asn Ala Pro Asn Gly Val Gln Lys Val Gln Gln Gly His
            180                 185                 190
Leu Ala Val Ala Glu Ala Glu Ala Ser Leu Ser Arg Asp Ser Met Ser
        195                 200                 205
Ile Pro Pro
    210
```

<210> 39483
<211> 178
<212> PRT
<213> A.fumigatus

<400> 39483

```
Leu His Met Ser Gln Ser Thr Arg Ser Ser Met Leu Leu Ser Phe Phe
1               5                   10                  15
Leu Val Thr Ile Leu Ala Leu Ser Ser Leu Gly Ser Ala Arg Pro Ile
            20                  25                  30
Ser Lys Ser Gly Asn Gly Leu Ser Arg Ser Gly Ile Tyr Ser Arg Ser
        35                  40                  45
Ala Ser Pro Ser Pro Val Arg Pro Phe Gln Pro Pro Ile Leu Ala Thr
    50                  55                  60
Gly Arg Leu Thr Asp Leu Gln Arg Val Ile Pro Ser Ser Gly Glu Tyr
65                  70                  75                  80
Arg Glu Lys Leu Met Lys Asn Ile Phe Asp Ser Leu Gly Leu Ser Ala
                85                  90                  95
Leu Asn Lys Leu Asp Asp Trp Lys Lys Lys Leu Glu Asp Ser Asp Ile
            100                 105                 110
Ile Asp Asp Ser Asn Ser Pro Ser Ser Thr Val Thr Glu Gln Asn Asn
        115                 120                 125
Ala Ser Ile Val Asp Glu Ser Thr Asn Asp Ser Asn Asp Glu Glu Thr
    130                 135                 140
Glu Asn Thr Pro Ala Thr Val Asp Ile Val Asp Asp Ile Leu Ser Thr
145                 150                 155                 160
Met Ile Asp Lys Phe His Glu Ala Phe Leu Thr Gln Asp Glu Val Thr
                165                 170                 175
Leu Ile
```

<210> 39484
<211> 187
<212> PRT
<213> A.fumigatus

<400> 39484
Met Arg Arg Gln Ser Gly Glu Arg Thr Phe Tyr Phe Arg Val Ala Ser
1 5 10 15
Ala Trp Ser Thr Leu Leu Leu Thr Thr Gly Asn Arg His Lys Val His
20 25 30
Pro Ile Ala Ala Val Glu Ile Glu Leu Ser Leu Trp Asp Thr His Thr
35 40 45
Leu Asn Asp Gly Val Ala Glu Thr Cys Ala Glu Leu Gly Ile Pro Leu
50 55 60
Val Ala Tyr Ser Pro Leu Gly Arg Gly Val Leu Ala Gly Ala Phe Thr
65 70 75 80
Ser Val Ser Glu Ile Pro Glu Gly Asp Phe Arg Lys Ser Leu Pro Lys
85 90 95
Tyr Gln Glu Asp Ala Met Lys His Asn Ile Lys Leu Val Asn Glu Val
100 105 110
Lys Asp Leu Ala Ser Arg Lys Gly Val Ala Pro Ala Gln Ile Ala Leu
115 120 125
Ala Trp Ile Leu Thr Leu Ser Gly Lys Pro Gly Met Pro Thr Ile Ile
130 135 140
Pro Ile Pro Gly Gly Thr Thr Ser Asp Lys Val Thr Gln Asn Leu His
145 150 155 160
Gly Val Pro Arg Leu Ser Asp Thr Glu Met Gly Glu Leu Asp Arg Ile
165 170 175
Leu Lys Lys Asn Glu Val Arg Gly Ala Arg Tyr
180 185

<210> 39485
<211> 329
<212> PRT
<213> A.fumigatus

<400> 39485
Glu Gly Arg Gly Glu Ile Cys Tyr Cys Ala Gly Phe Ser Leu Val Gly
1 5 10 15
Ile Ala Ser Ser Arg Val Ala Arg Cys Lys Tyr Thr Arg Ile Lys His
20 25 30
Gln Gln Pro Ser Ala Asn Val Ala Ile Glu Ala Leu Ser Ala Ala Ala
35 40 45
Phe Tyr Pro Leu Arg His Leu Ser Ser Ala Ser Thr Ser Leu Ala Leu
50 55 60
Ala Ser Thr Pro Ile Pro Met Thr Glu Ser Pro Gly Ser Pro Leu Ser
65 70 75 80
Ser Ile Ala Ser Asp Glu Met Ser Asp Arg Glu Asp Leu Lys His Pro
85 90 95
Phe Ser Pro Ser Ala Ser Thr Leu Pro Pro Ser Lys Arg Arg Arg Thr
100 105 110
Gly Val Ala Ser Trp Asp Arg Asn Thr Pro Leu Ser Thr Thr Phe Gln
115 120 125
Glu Asp Leu Pro Pro Thr Ser Pro Ser Thr Ser Ile Ser Ser Asp Thr
130 135 140
Ser Gly Asp Ile Pro Asn Ser Pro Thr Leu Leu Ala Leu Ile Gly Gly

145 150 155 160
Ser Gln Asp Asp Asp Tyr Ser Gly Gln Gly Asn Asp Gln Val Thr Val
165 170 175
Cys Arg Trp Glu Gly Cys Asn Val Gly Asp Leu Gly Asn Met Asp Asp
180 185 190
Leu Val Gln His Ile His Asn Asp His Val Gly Asn Arg Gln Lys Arg
195 200 205
Tyr Ser Cys Glu Trp Ser Asp Cys Pro Arg Lys Gly Gln Thr His Ala
210 215 220
Ser Gly Tyr Ala Leu Arg Ala His Met Arg Ser His Thr Arg Glu Lys
225 230 235 240
Pro Phe Tyr Cys Ala Leu Pro Gly Glu His Leu Ser Ser Ser Leu Val
245 250 255
Pro Ala Cys Gln Asn Leu His Leu Cys Asp Ala Asn Thr Ser Leu Gln
260 265 270
Asn Ala Thr Ala Val Ser Pro Val Gln Thr Pro Ser Pro Asn Thr Cys
275 280 285
Glu Pro Ser Thr Arg Gln Lys Pro Ser Asp Pro Leu Thr Pro Tyr Arg
290 295 300
Lys Ala Thr Met Ser Gln Pro Leu Gln Trp Glu Pro Leu Pro Glu Pro
305 310 315 320
Pro Ser Val Asn Ser Ser Ala Ser Asp
325

<210> 39486
<211> 67
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (55)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39486
Ala Ile Gly Ser Gln Ile Leu Leu His Ser Ala Ser Ser Phe Ile Phe
1 5 10 15
Ile Ile Pro Phe Ser Tyr Ser Pro Leu Gly Glu Ile Asn Trp Ile Val
20 25 30
Lys Thr Ser Val Phe Tyr Ile Thr Gly Thr Pro Pro Lys Asn Leu Glu
35 40 45
Asn Leu His Leu Leu Ser Xaa Ser Thr Cys Arg Ser Arg Arg Gly His
50 55 60
Arg Cys Ser
65

<210> 39487
<211> 169
<212> PRT
<213> A.fumigatus

<400> 39487
Phe Thr Lys Tyr Ile His Ser Asp His Val Tyr Leu Ile Cys Glu Pro
1 5 10 15
Pro Gly Glu Pro Tyr Tyr Leu Ala Arg Ile Met Glu Phe Leu Pro Ser
20 25 30

```
Lys Asp Lys Pro Asn Gly Pro Ile Glu Ala Leu Arg Val Asn Trp Tyr
        35                  40                  45
Tyr Arg Pro Arg Asp Ile His Arg Ile Val Ala Asp Thr Arg Leu Val
    50                  55                  60
Phe Ala Ser Met His Ser Asp Thr Cys Pro Leu Thr Ser Leu Arg Gly
65                  70                  75                  80
Lys Cys Gln Ile Lys His Leu Ser Glu Ile Asp Asp Phe Asn Ala Tyr
                85                  90                  95
Arg Lys Thr Arg Asp Ser Phe Trp Tyr Asp Lys Met Phe Asp Arg Tyr
            100                 105                 110
Ile His Arg Tyr Tyr Glu Val Val Pro Thr Lys Lys Val Ile Asn Val
        115                 120                 125
Pro Ala Asn Val Lys Lys Val Leu Asp Glu Arg Trp Lys Phe Ile Leu
    130                 135                 140
Val Glu Ile Gly Lys Arg Lys Glu Leu Phe Ser Ala Val Lys Thr Cys
145                 150                 155                 160
Lys Arg Cys Gly Leu Tyr Ala Ala Arg
                165
```

<210> 39488
<211> 276
<212> PRT
<213> A.fumigatus

<400> 39488

```
Gly Leu Val Met Ala Ser Asp Arg Ser Pro Pro Gln Lys Gln Ser Gln
1               5                   10                  15
Gln Gln Leu His Val Lys Ser Thr Ser Pro Ser His Arg Met Pro Thr
            20                  25                  30
Ser Gly Gln Thr Ser Arg Arg Gly Ser Ala Asp Ser Ser Thr Ala Gln
        35                  40                  45
Gly Asn Ala Thr Ala Asn Glu Ser Leu Ser Gln Pro Met Thr Ala Ser
    50                  55                  60
Ala Thr Pro Ser Glu Ala Ala Gly Thr Glu Pro Pro Ser Thr Ser Ala
65                  70                  75                  80
Thr Pro Ala Pro Tyr Gly Thr Arg Ser Arg Gly Arg Asn Ala Pro Arg
                85                  90                  95
Pro Asn Tyr Ala Glu Asp Arg Asp Ile Asp Met Asp Leu Glu Leu Leu
            100                 105                 110
Pro Pro Ser Ala Pro Lys Ser Ser Lys Lys Ser Ser Gly Thr Ala Ala
        115                 120                 125
Thr Ser Thr Thr Asn Gly Val Lys Pro Asp Gly Glu Lys Ala Ser Ser
    130                 135                 140
Ser Ser Asn Ser Arg Lys Ser Leu Thr Ala Ala Ser Gly Pro Asn Ala
145                 150                 155                 160
Ala Thr Ala Lys Asp Ala Ile Pro Gly Thr Ser Ser Phe Ser Ala Lys
                165                 170                 175
Pro Asp Asp Ser Gly Gly Ser Ser Ser Ser Ser Arg Lys Arg Lys Gln
            180                 185                 190
Pro Ala Ser Ser Thr Asn Ser Asn Ser Thr Asn Gly Asn Ala Ala Lys
        195                 200                 205
Lys Ile Phe Thr Ala Ala Pro Ser Ala Asp Pro Asn Leu Pro Glu Ser
    210                 215                 220
Asn Met Val Ser Phe Glu Asn Thr Gly Ala Tyr Leu Lys Asp Gly Lys
225                 230                 235                 240
Leu Ile Ala Asp Asp Gly Thr Thr Phe Ala Val Asn Gly Lys Tyr Leu
```

```
                245                 250                 255
His His Ser Gln Cys Leu Leu Cys Asp Leu Leu Asn Ile Tyr Ile Gln
            260                 265                 270
Ile Met Phe Thr
        275
```

<210> 39489
<211> 1015
<212> PRT
<213> A.fumigatus

<400> 39489

```
Glu Asn Glu Lys Asn Cys Leu Val Arg Leu Lys Pro Ala Ser Asp Ala
1               5                  10                  15
Val Cys Thr Leu Leu Gly Arg Cys Phe Ile Asp Lys Val Ile Arg Ser
            20                  25                  30
Phe Glu Leu Thr Thr Asp Ser Ser Tyr Ser Asn Asp Ser Val Asp Cys
        35                  40                  45
Ala Val Cys His Asn Thr Tyr His Met Tyr Cys Val Arg Pro Val Leu
    50                  55                  60
Thr Lys Lys Pro Ala Arg Gly Phe Ala Trp Ala Cys Ala Thr Cys Ser
65                  70                  75                  80
Arg Ala Gln Glu Lys Lys Leu Glu Ala Arg Asn Thr Pro Ile Ile Gly
                85                  90                  95
Glu Ser Pro Ala Glu Ala Glu Glu Glu Val Ala Glu Glu Glu Glu Glu
            100                 105                 110
Glu Pro Asn Gly Leu Pro Ser Asp Thr Asn Val Ser Thr Pro Ala Pro
        115                 120                 125
Ala Glu Glu His Pro Arg Pro Ala Thr Lys Glu Gln Ile Ala Gln Ala
    130                 135                 140
Arg Met Trp Pro Tyr Arg Tyr Leu Gly Ile His Cys Arg Val Glu Asp
145                 150                 155                 160
Ala Leu Asp Tyr Asp Asp Arg Ile Tyr Pro Arg Ala Ser Ser Arg Leu
                165                 170                 175
Gly Pro Arg His Gln Ala Ile Val Asn Pro Trp Pro Gly Arg Pro Val
            180                 185                 190
Glu Tyr Ala Lys Pro Ile Asp Ile Lys Lys Lys Tyr Leu Ser Arg Ser
        195                 200                 205
Gly Arg Lys Asp Ser Lys Leu Ser Lys Glu Ala Gln Ala Ala Ile Glu
    210                 215                 220
Ala Ala Lys Arg Glu Ile Ala Ser Arg Pro Lys Trp Val Met Asp Glu
225                 230                 235                 240
Pro Val Gly Tyr Val Arg Arg Gly Glu Asp Glu Pro Val Leu Ile Asn
                245                 250                 255
Gly Lys Pro Thr Arg Thr Ala Glu Val Leu Phe Lys Met Pro Thr Ala
            260                 265                 270
Thr Gln Ile Pro Asn Arg Gly Glu Asp Asp Ala Pro Gly Ala Glu Leu
        275                 280                 285
Ser Pro Ala Asp Arg Glu Lys Phe Ile Asp Asp Tyr Met Glu Arg Ala
    290                 295                 300
Lys Glu Ile Ala Pro Gln Leu Gly Glu Glu Lys Tyr Ala Thr Asn Phe
305                 310                 315                 320
Leu Asp Lys Ala Leu Glu Leu Leu Tyr Ser Asn Ser Phe Asp Ala Glu
                325                 330                 335
Ala Ala Leu Ala Lys Leu Lys Gln Gln Asn Lys Tyr Lys Asp Leu Lys
            340                 345                 350
```

```
Glu Pro His Leu Arg Pro Glu Glu Val Lys Leu Phe Glu Gln Gly Val
        355                 360                 365
Ala Lys Tyr Gly Ser Glu Leu Arg Asn Val Thr Lys His Val Gly Thr
    370                 375                 380
Val Pro His Tyr Gln Ile Val Arg Phe Tyr Tyr Met Trp Lys Lys Thr
385                 390                 395                 400
Pro Arg Gly Arg Gln Ile Trp Gly Gly Tyr Glu Gly Arg Lys Gly Lys
                405                 410                 415
Lys Glu Ala Lys Arg His Asn Ala Asn Ser Lys Leu Val Asp Asp Val
            420                 425                 430
Ala Asp Asp His Glu Asp Leu Gly Phe Asp Asn Glu Lys Ala Gly Glu
        435                 440                 445
Lys Lys Arg Gly Phe Gln Cys Lys Phe Cys Ser Thr Arg Ser Ser Arg
    450                 455                 460
Gln Trp Arg Arg Ala Pro Gly Val Pro Gln Gly Ile Thr Thr Pro Ser
465                 470                 475                 480
Glu Pro Ser Lys Lys Asp Lys Gly Pro Pro Leu Thr Val Ala Leu Cys
                485                 490                 495
Leu Arg Cys Ala Leu Leu Trp Arg Lys Tyr Gly Ile Gln Trp Glu Ser
            500                 505                 510
Val Asp Glu Val Ala Lys Lys Ile Ala Gln Ser Gly Asn Lys Ser Trp
        515                 520                 525
Arg Arg Arg Val Asp Glu Glu Leu Leu Thr Gln Leu Leu Leu Ser Thr
    530                 535                 540
Glu Thr Pro Ile Ser Ile Asn Ser Ala Thr Ala Ala Thr Ala Ala Ser
545                 550                 555                 560
Ile Gly Val Pro Val Asn Ala Asn Pro Gln Val Gln Gln Gln Asp Ser
                565                 570                 575
Asn Lys Lys Lys Ala Lys Pro Asn Glu Lys Glu Ser Thr Ala Thr Pro
            580                 585                 590
Val Ala Ser Ser Val Glu Pro Ala Pro Lys Lys Lys Pro Pro Pro Glu
        595                 600                 605
Lys Ala Pro Glu Pro Gln Pro Ile Val Pro Asp Pro Pro Lys Ala Lys
    610                 615                 620
Thr Leu Pro Cys Ala Val Cys Ser Arg Leu Glu Pro Leu Gly Asp Gln
625                 630                 635                 640
His Leu Ser Cys Arg Asp Cys Arg Leu Thr Val His Arg Asn Cys Tyr
                645                 650                 655
Gly Val Ser Pro Ser Arg Asn Cys Ala Lys Trp Leu Cys Asp Met Cys
            660                 665                 670
Ser Asn Asp Arg Ser Pro Met Ile Ser Thr Cys Tyr Glu Cys Val Leu
        675                 680                 685
Cys Pro Val Thr Trp Thr Glu His Glu Leu Met Glu Ala Pro Lys Val
    690                 695                 700
Ser His Lys Lys Lys Thr Asp Arg Asp Arg Glu Lys Glu Arg Leu Glu
705                 710                 715                 720
Lys Glu Met Val Gln Glu Ala Ile Lys Leu Tyr Arg Gln Arg Gln Glu
                725                 730                 735
Ala Val Gly Lys Pro Ile Gly Pro Arg Glu Pro Leu Lys Arg Thr Ala
            740                 745                 750
Gly Asn Asn Trp Val His Val Met Cys Ala Val Trp Thr Pro Glu Ile
        755                 760                 765
Lys Phe Gly Asn Ala Lys Glu Leu Glu Pro Ala Glu Gly Phe Gly Leu
    770                 775                 780
Ile Ala Ala Glu Arg Tyr Arg Asp Val Cys Lys Leu Cys Lys Thr Thr
785                 790                 795                 800
```

```
Lys Gly Ala Cys Val Thr Cys Ser His Ser Gly Cys Asn Ala Arg Phe
                805                 810                 815
His Val Gly Cys Ala Phe Gln Ala Gln Tyr Thr Phe Gly Phe Asn Ile
            820                 825                 830
Thr Pro Val Lys Ser Ser Arg Arg Asp Thr Val Ser Ser Ile Arg Leu
        835                 840                 845
Gly Glu Glu Val Gly Ala Ala Thr Ala Gly Ile Trp Cys Pro His His
    850                 855                 860
Ala Pro Ser Ser Gly Leu His Gln Ile Gly Glu Val Thr Gly Glu Asp
865                 870                 875                 880
Gly Leu Asn Ala Leu Gln Gln Tyr Val Gln Ser Tyr Lys Gln Ala Asp
                885                 890                 895
Leu Thr Leu Pro Gly Thr Leu Arg Arg Ala Ala Tyr Ile Gln Gln Thr
            900                 905                 910
Gly Asn Ala Ser Ser Gln His Ala Ser Thr Ala Gly Ser Arg Arg Ser
        915                 920                 925
Ser Ala Ile Asn Gly Val Val Thr Ala Ala Pro Gln Ser Ala Pro Thr
    930                 935                 940
Thr Lys Asp Asn Gln Lys Leu Ala Ala Thr Ala Pro Glu Gln His Thr
945                 950                 955                 960
Asp Glu Met Glu Ile Asp Ser Gly Ser Arg Ala Pro Arg Gln Val Ser
                965                 970                 975
Ser Ser Glu Val Glu Arg Lys Cys Cys Arg Cys Phe Thr Ser Phe Ser
            980                 985                 990
Pro Arg Trp Trp Pro Ile Asp Val Ser Arg Arg Leu Tyr Ser Thr Arg
        995                 1000                1005
Arg Leu Asp Asn Lys Arg Ser
    1010                1015

<210> 39490
<211> 263
<212> PRT
<213> A.fumigatus

<400> 39490
Val Arg Tyr His Leu Ile Leu Val Val Glu Ser Ser Gly Phe Val Ala
1               5                   10                  15
Gly Cys Gln Leu Arg Leu Leu Leu Gln Ile Arg Asn Lys Arg Leu Ala
            20                  25                  30
Lys Leu Gly Asn Pro Ser Ser Ser Ser Gln Asn Ala Ser Gly Pro Glu
        35                  40                  45
Thr Ala Ser Thr Gln Pro Ser Thr Pro Ser Leu Pro Ser Pro Ser Pro
    50                  55                  60
Gln Gln Thr Phe Asp Ala Pro Gln Pro Gln Ile Ser Ile Ser Ser Ala
65                  70                  75                  80
Pro Arg Ser Gln Thr Ser Ser Pro Arg Leu Glu Leu Gln Glu Ser Glu
                85                  90                  95
Gly Lys Arg Ile Lys Ile Thr Pro Ser Ala Pro Ala Ser Pro Ala Pro
            100                 105                 110
Glu Ser Val Ala Asp Thr Pro Val Ser Asn Thr Pro Pro Pro Pro Lys
        115                 120                 125
Ala Glu Glu Ser Ile Glu Ser Phe Glu Asp Arg Thr Leu Ser Ala Val
    130                 135                 140
Phe Lys Leu Ser Leu Arg Glu Asp Arg Gln Arg Asp Ile His Gly His
145                 150                 155                 160
Lys Leu Ile Tyr Leu Pro Gly Leu Arg Ser Glu Leu Glu Asp Gln Gly
```

```
                165                 170                 175
Arg Glu Pro Arg Ile Asp Thr Thr Val Leu Asp Gln Ala Leu Leu Glu
            180                 185                 190
Ala Ala Ser Asn Thr Gln Gln Lys Pro Leu Asp Tyr Leu Leu Pro Cys
        195                 200                 205
Trp Gly Arg Ile Ser Arg Leu His Lys Gly Phe Arg Arg Ala Arg Glu
    210                 215                 220
Asp Asp Pro Lys Phe Ala Val Ile Ser Glu Ala Arg Arg Leu Cys Met
225                 230                 235                 240
Ser Tyr Cys Ile Phe Ala Ile Thr Met Pro Glu Met Phe Gly Trp Val
                245                 250                 255
Leu Thr Ser Pro Leu Phe Ser
            260
```

<210> 39491
<211> 85
<212> PRT
<213> A.fumigatus

<400> 39491

```
Glu Leu Pro Ala Val Arg Phe Ser Glu Gly Glu Ile Leu Ala Ser Leu
1               5                   10                  15
Arg Tyr Ala Leu Phe His Leu Thr Arg Asp Phe Gly Ser Leu Gln Phe
            20                  25                  30
Leu Phe Gly Arg Ser Ser Phe Cys Leu Leu Phe Tyr Phe Ala Leu Asp
        35                  40                  45
Ala Asn Asp Trp Arg Arg Phe Ser Met Ala Ser His Gly Leu Met Ser
    50                  55                  60
Thr Asp Val Tyr Asp Tyr Ser Tyr Cys Ala Asn Thr Phe Leu Ser Thr
65                  70                  75                  80
Ala Val Arg Arg Asp
                85
```

<210> 39492
<211> 112
<212> PRT
<213> A.fumigatus

<400> 39492

```
Thr His Gln Ile Ile Ser Ser Thr Met Pro Ser Ala Ser Ala Ser Gly
1               5                   10                  15
Ala Asp Thr Gly Gly Ser Ala Arg Ser Arg Glu His Asn Gln Gly Asn
            20                  25                  30
Gln Asp Arg Lys Tyr Thr Ala Glu Gln Lys Ala Ala Val Ile Arg Ile
        35                  40                  45
Arg Lys Cys Ser Ser Thr Ala Tyr Tyr Glu Ile Leu Ala Leu Asp Lys
    50                  55                  60
Ser Ala Ser Asp Gly Glu Ile Lys Lys Ala Tyr Arg Lys Leu Ser Leu
65                  70                  75                  80
Leu Thr His Pro Asp Lys Asn Gly Tyr Glu Gly Ala Asp Glu Ala Phe
                85                  90                  95
Lys Ser Glu Phe Phe Ser Ser Asp Ala Arg Met Met Ala Leu Arg Met
            100                 105                 110
```

<210> 39493
<211> 293

<212> PRT
<213> A.fumigatus

<400> 39493
Leu Met His Val Ala Ala Val Val Ser Arg Ala Phe Gln Val Leu Ser
1 5 10 15
Asp Pro Asp Lys Lys Ser Lys Tyr Asp Lys Phe Gly Gly Asp Pro Asp
20 25 30
Ser Arg Phe Thr Pro Ser Ala Gly Pro Ser Gly Ala Ser Pro Phe Gly
35 40 45
Gly Phe Gly Gly Gly Gly Gly Gly Phe Pro Arg Ser Ala Gly Ala Gly
50 55 60
Gly Pro Met Phe Glu Glu Glu Ile Ser Pro Glu Glu Leu Phe Asn Arg
65 70 75 80
Phe Phe Asn Gly Gly Phe Gly Gly Gly Gly Phe Gly Pro Phe Gly Thr
85 90 95
Leu Gly Ser His Ser Ser Leu Val Ser Leu Arg Ala His Thr Tyr Gly
100 105 110
Cys Tyr Leu Gly Gly Pro Gln Phe Val Phe Asn Met Gly Gly Gly Pro
115 120 125
Gly Phe Arg Val His Gln Phe Gly Gly Pro Arg Pro Arg Arg Arg Pro
130 135 140
Arg Glu Ala Ser Ala Gln Ala Glu Ala Ala Pro Ser Gly Trp Ala Thr
145 150 155 160
Phe Gln Ser Leu Leu Pro Leu Ile Leu Leu Phe Val Leu Pro Leu Leu
165 170 175
Ser Ser Leu Phe Ser Gly Ser Ser Ser Pro Ser Gly Pro Ser Tyr Arg
180 185 190
Phe Asp Ala Ala Val Pro Pro His Thr Met Gln Arg Thr Thr Pro Lys
195 200 205
Tyr Asn Ile Asn Tyr Phe Val Asn Pro Arg Asp Val Glu Asp Tyr Ser
210 215 220
Ala Lys Lys Leu Arg Gln Leu Asp Thr Lys Val Glu Val Asp Tyr Ile
225 230 235 240
Thr Lys Leu Arg Tyr Glu Cys Glu Ser Glu Val His Ala Arg Asp Arg
245 250 255
Met Met Gln Glu Ala Gln Gly Trp Phe Phe Pro Asp Val Glu Lys Met
260 265 270
Lys Glu Ala Arg Ser Met Glu Leu Lys Ser Cys Arg Gln Leu Asp Ser
275 280 285
Leu Lys Gly Arg Tyr
290

<210> 39494
<211> 63
<212> PRT
<213> A.fumigatus

<400> 39494
Ile Val Gln Arg Leu Leu Leu Gly Ile Arg Gly Gly Phe Lys Glu Gly
1 5 10 15
Leu Val Gln Tyr Ser Arg Val Asp Ala Arg Phe Ala Thr Leu Val Leu
20 25 30
Lys Phe Thr Pro Gln Pro Arg Gln Val Asp Gln Leu Val Pro Met Asp
35 40 45
Ile Pro Leu Ser Val Leu Pro Gln Ala Lys Leu Glu Asp Gly Ala

50 55 60

<210> 39495
<211> 164
<212> PRT
<213> A.fumigatus

<400> 39495
Ala Leu Lys Glu Thr Arg Glu Glu Cys Glu Pro Ser Val Pro Lys Gly
1 5 10 15
Pro Asn Pro Pro Pro Pro Asn Pro Pro Leu Lys Lys Arg Leu Asn Ser
20 25 30
Ser Ser Gly Asp Ile Ser Ser Ser Asn Ile Gly Pro Pro Ala Pro Ala
35 40 45
Glu Arg Gly Asn Pro Pro Pro Pro Pro Pro Lys Pro Pro Lys Gly Asp
50 55 60
Ala Pro Asp Gly Pro Ala Leu Gly Val Asn Leu Leu Ser Gly Ser Pro
65 70 75 80
Pro Asn Leu Ser Tyr Phe Asp Phe Leu Ser Gly Ser Asp Ser Thr Trp
85 90 95
Lys Ala Arg Glu Thr Thr Ala Ala Thr Cys Ile Ser Tyr Ile Arg Asn
100 105 110
Ala Ile Ile Leu Ala Ser Glu Glu Lys Asn Ser Leu Leu Asn Ala Ser
115 120 125
Ser Ala Pro Ser Tyr Pro Phe Leu Ser Gly Cys Val Asn Lys Leu Ser
130 135 140
Leu Arg Tyr Ala Phe Leu Ile Ser Pro Ser Asp Ala Asp Leu Ser Lys
145 150 155 160
Ala Arg Ile Ser

<210> 39496
<211> 328
<212> PRT
<213> A.fumigatus

<400> 39496
Ile Ser Lys Arg Gly Ser Cys Gln Pro Arg Gly Glu Asp Gly Asn Ile
1 5 10 15
Cys Tyr Gly Ala Gly Ser Gly Leu Gly Gly Val Phe Gly Gly Trp Ile
20 25 30
Asn Asp Thr Leu Gly Trp Arg Trp Ala Phe Leu Ile Gln Val Pro Phe
35 40 45
Val Val Val Ser Cys Ile Leu Val Ala Val Thr Val Lys Ile Pro Ala
50 55 60
Lys Glu Thr Asp Thr Ala Lys Leu Lys Arg Val Asp Phe Leu Gly Ala
65 70 75 80
Ile Thr Leu Val Ile Thr Leu Val Leu Leu Leu Leu Gly Leu Asn Thr
85 90 95
Gly Gly Asn Gln Val Pro Trp Thr His Pro Ile Ile Leu Thr Thr Leu
100 105 110
Pro Leu Ser Ala Val Phe Leu Phe Ile Phe Ile His Ile Glu Ala Asn
115 120 125
Ile Ala Ser Glu Pro Val Ile Pro Val Arg Leu Leu Leu Asp Arg Thr
130 135 140
Val Ser Ser Ala Cys Leu Thr Asn Trp Phe Ser Thr Met Ala Ile Phe

```
145                 150                 155                 160
Gly Leu Leu Phe Tyr Leu Pro Leu Tyr Phe Gln Val Glu Gly Leu Ser
                165                 170                 175
Ala Thr Ala Ala Gly Val Arg Leu Val Pro Gln Ala Leu Gly Thr Ser
            180                 185                 190
Leu Gly Ser Leu Ala Ser Gly Phe Leu Met Arg Ala Thr Gly Arg Tyr
        195                 200                 205
Lys Ile Phe Ser Asn Leu Ser Met Ile Leu Leu Val Ala Ala Gly Ala
    210                 215                 220
Leu Ile Cys Thr Leu Asn Leu Ala Thr Pro Ala Trp Ile Pro Phe Val
225                 230                 235                 240
Tyr Phe Phe Cys Leu Gly Thr Ala Tyr Gly Gly Met Leu Thr Ile Thr
                245                 250                 255
Leu Val Ala Leu Met Ser Ala Val Asp His Glu His His Ala Val Ile
            260                 265                 270
Thr Ser Ala Ser Tyr Ala Phe Arg Ser Thr Gly Ser Thr Ile Gly Ile
        275                 280                 285
Thr Ile Ala Ser Ala Val Phe Gln Asn Ile Leu Lys Ser Gly Leu Trp
    290                 295                 300
Ser Arg Phe Gly Asp Arg Glu His Ala Arg Lys Asp His Leu Thr His
305                 310                 315                 320
Gln Gly Gln Phe Gly Arg Asp Gln
                325
```

<210> 39497
<211> 141
<212> PRT
<213> A.fumigatus

```
<400> 39497
Thr Asn Asp Ala Thr Glu Ile Phe His Ile His Ser Thr Phe Gln Arg
1               5                   10                  15
Thr Ile Cys Leu Thr Ser Glu Glu Ser Val Tyr Ser Leu Ile Phe Glu
            20                  25                  30
Tyr Ser Trp Asn Pro Ser Asp Trp Ala Lys Ser Arg Cys Cys Cys Ile
        35                  40                  45
Ser Ile His Pro Leu Asn Ser Thr Asn Ser Ser Phe Pro Ser Ser Phe
    50                  55                  60
Ser Thr Arg Gln Pro Leu Lys Ile Gly Asn Gly Ile Val Ala Phe Ser
65                  70                  75                  80
Arg Arg Cys Cys Ile Pro Ser Asn Thr Arg Ser Asn Pro Ser Leu Phe
                85                  90                  95
Ser Ala Leu Thr Thr Tyr Arg Pro Thr Ala Thr Thr Gly Ala Ser Ala
            100                 105                 110
Ser Asn Ser Arg Cys Arg Thr Ala Ser Pro Ser Thr Cys Asn Asn Pro
        115                 120                 125
Ile Thr Ser Ile Ser Pro Glu Ser Arg Ser Met Ile Pro
    130                 135                 140
```

<210> 39498
<211> 672
<212> PRT
<213> A.fumigatus

```
<400> 39498
Ser Leu Leu Cys Arg Pro Gly Ser His Leu Asp Phe Ser Ile Cys Ser
```

```
1               5                   10                  15
Pro Asp His Lys Leu Cys Ser Val Asp Leu Ser Ser Pro Gln Pro Phe
            20                  25                  30
Ser Ser Arg Phe Gln Arg Val Leu Ala Ile Phe Leu Ala Trp Gln Trp
        35                  40                  45
Gly Tyr Gly Arg Ile Val Leu Gln Asn Trp Val Phe Pro Leu Val Leu
    50                  55                  60
Pro Arg Lys Ala Leu Cys Arg Leu Lys Trp Arg Leu Met Gly Arg Leu
65                  70                  75                  80
Arg Gly Asp Gln Leu Ser Ile Leu His Leu Pro Thr Pro Val Arg Thr
                85                  90                  95
Lys Ser Trp Lys Met Ser Arg Phe Arg Arg Asn Ala Ala Glu Gly Arg
            100                 105                 110
Ile Leu Leu Ser Thr Glu Ser Val Phe Val Asp Asn Ile Leu Pro Ser
        115                 120                 125
Leu Leu Gln Asn Pro Asp Val Glu Leu Arg Leu Ile Thr Asp Glu Pro
    130                 135                 140
Ser Ala Leu Leu Ala Gly Ala Asn Lys Ile Pro His Tyr Met Asp Thr
145                 150                 155                 160
Val Asp Ser Gln Thr Phe Glu Lys Lys Thr Gly Ala Arg Arg Trp Leu
                165                 170                 175
Lys Ala Lys Ala Ala Glu Leu Ser Glu Trp Ala Asp Met Leu Leu Val
            180                 185                 190
Ala Pro Ile Asp Ala Gly Thr Leu Gly Ser Met Leu Phe Gly Leu Thr
        195                 200                 205
Asn Thr Leu Thr Leu Ala Leu Leu Arg Gly Trp Ile Ser Thr Lys Pro
    210                 215                 220
Val Ile Leu Val Pro Gly Met Thr Val Ser Glu Trp Glu His Pro Leu
225                 230                 235                 240
Ser Arg Arg Gln Leu Ala Glu Val Asp Arg Tyr Trp Pro Trp Ile Asn
                245                 250                 255
Ile Val Lys Pro Ala Leu Trp Arg Ser Asn Gly Pro Glu Glu Leu Val
            260                 265                 270
Gln Leu Pro Trp Asp Gly Leu Gly Glu Leu His Asn Thr Met Glu Arg
        275                 280                 285
Thr Leu Gly Leu Ser Phe Ser Glu Ser Ser Thr Ile Ser Gly Gln Ala
    290                 295                 300
Leu Asp Ser Thr Gln Gln Val Val Pro Ala Val Thr Lys Gln Ser Ala
305                 310                 315                 320
Ser Ala Met Ser Ala Ala Gln His Leu Arg Lys Gly Ala Arg Ser Leu
                325                 330                 335
Arg Leu Glu Leu Trp Leu Asn Ile Phe Glu Glu Gln Leu Gln Asp Trp
            340                 345                 350
Glu Ile Ala Lys Ala Val Gly Ile Pro Thr Asn Leu Pro Val Pro Lys
        355                 360                 365
Glu Trp Gln Ser His Leu Leu Lys Met Ser Thr Pro Ala Ser Leu Glu
    370                 375                 380
Tyr Thr Ile Leu Arg Gly Ser Phe Ala Ala Ile Lys Lys Arg Ile Asp
385                 390                 395                 400
Ser Leu Pro Arg Trp Lys Pro Leu Ser Asp Leu Ala Cys His Leu Ile
                405                 410                 415
Phe Lys Phe Ser Arg Thr Asp Ile Leu Ser Tyr Leu Thr Glu Asn His
            420                 425                 430
Leu Asp Met Leu Trp Thr Thr Ser Arg Leu Thr Lys Leu Pro Tyr Arg
        435                 440                 445
Ala Ser Ala Ile Tyr Gly Asn Pro Lys Val Leu Thr Trp Trp Gln Glu
```

```
    450                 455                 460
Thr Leu Ala Leu Pro Asn Lys Asp Tyr Ser Ala Asp Ala Met Asp Gly
465                 470                 475                 480
Ala Ser Arg Ala Gly Phe Val Glu Val Leu Glu Trp Trp Arg Thr Ser
                485                 490                 495
Gly Leu Glu Leu Arg Tyr Thr Glu Arg Ala Leu Glu Ser Ala Ser Ala
            500                 505                 510
Glu Gly Arg Val Ala Val Leu Glu Trp Trp Lys Asn Ala Ser Ala Asn
        515                 520                 525
Ala Pro Pro Ser Asn Pro Ile Pro Leu Lys Val Gly Lys Ser Val Leu
    530                 535                 540
Leu Ala Ala Gln Ser Gly Arg Val Glu Ser Leu Ala Trp Trp Asp Ala
545                 550                 555                 560
Ser Gly Ile Pro Tyr Ser His Ala Glu Ser Val Ala Arg Ile Ala Ser
                565                 570                 575
Thr His Gly His Val His Val Leu Asp Phe Trp Tyr Arg Leu Lys Gly
            580                 585                 590
Pro Lys Met Ile Phe Asp Ser Gln Leu Leu Val Gly Pro Thr Lys Asn
        595                 600                 605
Gly His Asp Asn Val Leu Glu Trp Trp Arg Arg Ser Gly Leu Arg Val
    610                 615                 620
Glu Phe Lys Thr Cys Asp Ile Glu Glu Ala Leu Glu Asp Ala Asp Pro
625                 630                 635                 640
Val Ser Gly Ala Glu Gly Arg Val Arg Arg Trp Trp Ala Arg Asn Gly
                645                 650                 655
Leu Asn Leu Gly Val Gly Thr Ser Glu Trp Met Lys Thr Lys Val Leu
            660                 665                 670
```

<210> 39499
<211> 264
<212> PRT
<213> A.fumigatus

<400> 39499

```
Ala Lys Gly Glu Val Phe Arg Asp Asn Gly Asp Leu Asn Asn Glu Pro
1               5                   10                  15
Gln Leu Gly His Thr Val Ser Ile Ser Val Gly Asn Gly Pro Thr Thr
            20                  25                  30
Val Leu Ser Arg Ser Gln His Gln Asn Lys Leu Ser Lys Phe Phe Phe
        35                  40                  45
Gln Arg Asp Gln Glu Gly Lys Glu Glu Glu Ile His Asn Arg Ser Phe
    50                  55                  60
Ser Leu Glu Arg Glu Lys Pro Glu Met Leu Gln Thr Leu Ala Ser Ser
65                  70                  75                  80
Ser Val Ala Ser Thr Asn Leu Leu Asn Ala Leu Lys Arg Val Asn Arg
                85                  90                  95
Glu Thr His Arg Val Ser Glu Asp Ala Glu Cys Leu Asn Arg Phe Glu
            100                 105                 110
Thr Cys Lys Leu Leu Arg Arg Gln Ile Leu Arg Tyr Ile Gln His Val
        115                 120                 125
Glu Ser Glu Glu Tyr Leu Gly Ser Leu Ile His Ala Asn Glu Glu Leu
    130                 135                 140
Val Thr Ala Leu Met Ala Phe Glu Val Leu Asp Lys Ser Ile Asp Tyr
145                 150                 155                 160
Asp Ser Asp Ser Asp Gln Asp Val Leu Glu Ser Gly Trp Thr Pro Asp
                165                 170                 175
```

```
Arg Asp Asp Ile Asn Glu Ser Phe Ala Gly Leu Val Ile Asn Pro Pro
            180                 185                 190
Lys Pro Pro Arg Pro Pro Arg Pro Leu Ser Ile Ser Val Pro Ser Ser
        195                 200                 205
Ser Gln Gln Lys Tyr Val Ser Ala Ser Glu Ser Glu Thr Asp Glu Asp
    210                 215                 220
Asp Asp Asp Glu Asn Asn Pro Phe Gly Asp Arg Asn Ala Ile Arg Thr
225                 230                 235                 240
Pro Gly Leu Glu Lys Ala Glu Pro Thr Trp Tyr Val Leu Phe Ala Asp
                245                 250                 255
Leu Pro Gly Ala His Ser Ser Gly
            260
```

<210> 39500
<211> 206
<212> PRT
<213> A.fumigatus

<400> 39500

```
Met Thr Pro Pro Val Thr Glu Ile Ala Leu Leu Arg Leu Lys Ser Asn
1               5                   10                  15
Pro Ala Ser Ala Ser Phe Lys Ala Leu Leu Leu Asp Gly Ile Lys Ala
            20                  25                  30
Gln Ala Glu Phe Ser Ser Tyr Pro Val Tyr Leu Phe Ser Gln Val Glu
        35                  40                  45
Asp Pro Ser Val Ile Tyr Leu Val Gly Gly Trp Asp Ser Ala Gln Gln
    50                  55                  60
His Tyr Glu Asp Trp Ile Pro Ser Ala Thr Asn Gln Gly Ile Met Glu
65                  70                  75                  80
Arg Leu Ser Gly Glu Met Glu Val Met Gly Leu Leu His Val Asp Gly
                85                  90                  95
Asp Ala Val Arg Gln Arg Glu Leu Leu Ala Glu Ala Pro Val Val Ala
            100                 105                 110
Val Gly Arg Tyr Val Val Ser Ala Glu Lys Arg Glu Gly Phe Asp Arg
        115                 120                 125
Val Phe Glu Gly Met Gln His Arg Leu Glu Asn Ala Thr Met Pro Leu
    130                 135                 140
Pro Ile Phe Lys Gly Trp Arg Val Glu Lys Glu Glu Gly Lys Glu Glu
145                 150                 155                 160
Phe Val Leu Phe Ser Gly Trp Met Glu Met Gln Gln His Leu Asp Phe
                165                 170                 175
Ala Gln Ser Glu Gly Phe Gln Glu Tyr Ser Lys Ile Lys Glu Tyr Thr
            180                 185                 190
Asp Ser Ser Glu Val Lys His Ile Val Arg Trp Lys Val Glu
        195                 200                 205
```

<210> 39501
<211> 341
<212> PRT
<213> A.fumigatus

<400> 39501

```
Arg Val Leu Leu Gln Pro Ala His Ala Ile Glu Ala Val Arg Ser Gly
1               5                   10                  15
Arg Asn Gln Ala Ile Glu Ile Ile Glu Gln Arg Asp Asp Arg Leu Leu
            20                  25                  30
```

```
Val Val Val Gly Pro Cys Ser Ile His Asp Pro Ala Thr Ala Leu Glu
        35                  40                  45
Tyr Ala Thr Arg Leu Lys Glu Leu Ser Gln Lys Leu Ser Ser Glu Leu
    50                  55                  60
Cys Val Ile Met Arg Ala Tyr Leu Glu Lys Pro Arg Thr Thr Val Gly
65                  70                  75                  80
Trp Lys Gly Leu Ile Asn Asp Pro Asp Ile Asp Glu Thr Tyr Asn Ile
                85                  90                  95
Asn Lys Gly Leu Arg Val Ser Arg Lys Leu Tyr Ala Asp Leu Thr Gly
            100                 105                 110
Met Gly Met Pro Ile Ala Ser Glu Met Leu Asp Thr Ile Ser Pro Gln
        115                 120                 125
Tyr Leu Ala Asp Leu Ile Ser Leu Gly Ala Ile Gly Ala Arg Thr Thr
    130                 135                 140
Glu Ser Gln Leu His Arg Glu Leu Ala Ser Gly Leu Ser Phe Pro Ile
145                 150                 155                 160
Gly Tyr Lys Asn Gly Thr Asp Gly Asn Leu Thr Val Ala Ile Asp Ala
                165                 170                 175
Ile Gly Ala Ala Ser His Pro His Arg Phe Leu Gly Val Thr Lys Gln
            180                 185                 190
Gly Leu Ala Ala Ile Thr Lys Thr Ser Gly Asn Glu His Gly Phe Val
        195                 200                 205
Ile Leu Arg Gly Gly Asn Lys Gly Thr Asn Tyr Asp Arg Glu Ser Ile
    210                 215                 220
Lys Ser Ala Arg Glu Ala Leu Arg Ala Lys Lys Gln Arg Glu Val Val
225                 230                 235                 240
Met Val Asp Cys Ser His Gly Asn Ser Lys Lys Asp His Arg Asn Gln
                245                 250                 255
Pro Leu Val Ala Lys Glu Val Ala Asp Gln Leu Arg Glu Gly Glu Asp
            260                 265                 270
Ser Ile Ile Gly Val Met Ile Glu Ser Asn Ile Asn Glu Gly Asn Gln
        275                 280                 285
Lys Val Pro Pro Glu Gly Pro Ser Gly Leu Leu Lys Gly Val Ser Ile
    290                 295                 300
Thr Asp Ala Cys Ile Ser Trp Glu Thr Thr Val Thr Val Leu Glu Asp
305                 310                 315                 320
Leu Ala Asp Ala Val Arg Thr Arg Arg Ala Val Lys Ala Ser Lys Ser
                325                 330                 335
Asn Gly Val Ser Gln
            340
```

<210> 39502
<211> 84
<212> PRT
<213> A.fumigatus

<400> 39502

```
Tyr Glu Pro Pro Val Pro Ile Pro Cys Pro Asp Pro Gln Pro Thr Arg
1               5                   10                  15
Arg Asp Ser Gln Pro Gln Gly Pro Met Pro Ala Pro Ser Pro Ala Gly
            20                  25                  30
His His Thr Ser Ser Pro Ala Leu Trp Gln Asn Pro Arg Lys Thr Gln
        35                  40                  45
His Gly Asp Pro Ala Lys Asp Gln Arg Leu Arg Arg Lys Lys Ser Ser
    50                  55                  60
Asp Cys Glu Pro Arg His Gly Arg Leu Gly Trp Pro Ser Gln Pro Arg
```

65 70 75 80
Ala Ser Ile Arg

<210> 39503
<211> 213
<212> PRT
<213> A.fumigatus

<400> 39503
Gly His Gly Leu Gln Phe Asp His Arg Val Arg Tyr Val Phe Arg Lys
1 5 10 15
His Ala Lys Arg Gln Leu Ser Ile Ser Lys Leu Val Asp Cys Ser Glu
20 25 30
Gly Tyr Gly Ile Val Gly Met Glu Cys Ala Asn Met Phe Cys Leu Trp
35 40 45
Leu Gly Ile Cys Gly Val Leu Thr Val Tyr Ser Met Val Ser Leu Thr
50 55 60
Leu Tyr Asn Arg Arg Gln Arg Ala Leu Trp Val Glu Arg Glu Leu Gln
65 70 75 80
Lys Leu Gln Asp Ala Lys Ala Ala Tyr Ala Ser Gly Ser Ala Thr Pro
85 90 95
Glu Gln Leu Glu Leu Ile Lys Asn Glu Glu Ile Gly Glu Ile Met Lys
100 105 110
Arg Lys Lys Glu Glu Ala Lys Ala Gln Arg Pro Trp Asn Arg Ala Lys
115 120 125
Glu Tyr Leu Phe Gly Gly Leu Lys Gln Asp Glu Thr Thr Ser Asp Leu
130 135 140
Ser Ser Lys Val Asp Gly Ala Ala Asp His Lys Val Gly Val Leu Glu
145 150 155 160
Ala Leu Asn Ala Lys Ala Ala Glu Asp Ser Lys Ser Arg Thr Pro Ser
165 170 175
Glu Thr Ala Thr Met Pro Ala Gln Pro Gly Gln Leu Asp Val Leu Ala
180 185 190
Glu Asn Val Glu Thr Ala Ala Lys Gln Ser Thr Arg Ser Trp Lys Ser
195 200 205
Trp Leu Thr Gly Arg
210

<210> 39504
<211> 138
<212> PRT
<213> A.fumigatus

<400> 39504
Arg Leu Gly Asp Gly Ser Lys Ala Leu Leu Gly His Thr Lys Glu Thr
1 5 10 15
Val Gly Val Gly Gly Gly Ser Asn Gly Val Asp Ser Asn Ser Glu Val
20 25 30
Ala Ile Arg Thr Val Leu Val Ala Asn Arg Lys Thr Gln Thr Arg Gly
35 40 45
Gln Leu Thr Val Gln Leu Arg Phe Gly Arg Thr Gly Thr Asn Ser Ser
50 55 60
Lys Arg Asp Glu Ile Gly Lys Ile Leu Arg Gly Asn Gly Ile Glu His
65 70 75 80
Leu Ala Ser Asn Arg His Pro His Thr Ser Lys Ile Ser Ile Glu Leu

```
                85                  90                  95
Thr Arg Asp Thr Gln Ala Leu Val Asp Val Val Gly Phe Val Asn Ile
            100                 105                 110
Arg Val Val Asp Gln Thr Leu Pro Thr Asn Cys Cys Ala Gly Leu Leu
        115                 120                 125
Gln Val Gly Thr His Asn His Ala Glu Leu
    130                 135
```

<210> 39505
<211> 77
<212> PRT
<213> A.fumigatus

<400> 39505

```
Glu Ser Ser Phe Ser Arg Val Ala Tyr Ser Ser Ala Val Ala Gly Ser
1               5                  10                  15
Trp Ile Glu His Gly Pro Thr Thr Thr Lys Arg Arg Ser Ser Arg Cys
            20                  25                  30
Ser Met Ile Ser Met Ala Trp Leu Arg Pro Asp Arg Thr Ala Ser Ile
        35                  40                  45
Ala Trp Ala Gly Cys Asn Arg Thr Arg Gln Pro Gln Cys Tyr Thr Phe
    50                  55                  60
His Gly Met Val Tyr Leu Ala Phe Pro Lys Arg Ile Leu
65                  70                  75
```

<210> 39506
<211> 122
<212> PRT
<213> A.fumigatus

<400> 39506

```
Val Arg Pro Asn Pro Asp Arg Arg Glu Leu Ala Ser Thr Pro Phe Ser
1               5                  10                  15
Ser Thr Arg Arg Thr Thr Gly Val Lys Pro Ala Arg Asn Ala Met Lys
            20                  25                  30
Pro Asn Lys Pro Gln Pro Arg Thr Arg Met Pro Lys Arg Arg Val Thr
        35                  40                  45
Lys Ser Ala Arg Arg Trp Val Ser Cys Gly Gly Lys Pro Ala Lys Arg
    50                  55                  60
Lys Asn Asp Arg Ile Ser Asn Arg Arg Arg Ser Thr Gly Arg Pro Thr
65                  70                  75                  80
Arg Arg Ser Gly Ile Asp Gly Ser Arg Ile Arg Arg Ser Gly Lys Gly
                85                  90                  95
Ser Arg Ser Arg Ser Arg Ser Gly Gly Ala Arg Pro Ile Arg Ser Arg
            100                 105                 110
Arg Gly Ser Arg Arg Arg Arg Gly Asn Ala
        115                 120
```

<210> 39507
<211> 1107
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (987)

<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39507

```
Ile Ser Gly Ser Leu Ser Gly Tyr Tyr Gln Val Ser Ser Gly Pro Val
1               5                  10                  15
Gln Cys Pro Ser Asn Pro Leu Leu Ala Lys Met Glu Ala Thr Ala Ser
            20                  25                  30
Met Gly Leu Gln Gly Leu Asn Gly Val Ser Tyr Asp Leu Ser Gln Leu
        35                  40                  45
Asp Asn Tyr Leu Ser His Ala Thr Thr Tyr Val Asn Gly Asn Gln His
    50                  55                  60
Leu Gln His Pro Ser Leu Pro Asn Glu Arg Ile Ser Gly Thr Val Asp
65                  70                  75                  80
Leu Ser Glu Pro Pro Ala Lys Arg Leu Arg Arg Ser Pro Ser Cys Asn
                85                  90                  95
Glu Ser Asn Glu Ser Asn Gly Glu Thr Ser Ser Pro Ala Ala Ile Ile
            100                 105                 110
Asp Pro Ser Thr Arg Leu Gln Asp Val Asn Gly Gly Leu Asp Arg Val
        115                 120                 125
Ala Gly Gly Ser Glu Ser Ala Asp Ser Met Thr His Asp Ser Asn Glu
    130                 135                 140
Asp Thr Ser Asn Ile Leu Ser Gly Ser Ala Thr Ser Val Ser Leu Met
145                 150                 155                 160
Tyr Glu Pro Ser Gln Lys Asn Ser Thr Pro Pro Ser Thr Val Asn Asn
                165                 170                 175
Val Pro Ser Ser Ser Ser Ile Thr Ser Asp Ser Lys Gly Leu Ser Gly
            180                 185                 190
Asn Thr Asp Tyr Ala Arg Tyr Arg Pro Arg Ser Ser Ile Pro Ser Lys
        195                 200                 205
Leu Thr Ala Ala Val Tyr Ala Gln Gln Cys Val Thr Ala Ala Tyr Ala
    210                 215                 220
Cys Arg Leu Asn Pro Tyr Ser Leu His Lys Lys Glu Gln Glu Pro Leu
225                 230                 235                 240
Gln Asp His Leu Cys His Leu His Val Thr Ala Tyr Leu Asn Ile Arg
                245                 250                 255
Asn Gly Ile Leu Arg Leu Trp Thr Arg Asn Pro Met Val Ser Val Thr
            260                 265                 270
Lys Asp Glu Ala Leu Gly Cys Ala Lys Asp Tyr Arg Trp Met Gly Leu
        275                 280                 285
Ala Ser Phe Ala Tyr Glu Trp Leu Val Arg Asn Gly Tyr Ile Asn Phe
    290                 295                 300
Gly Cys Val Glu Ile Pro Pro Ala Leu Val Ala Pro Lys Lys Gly Arg
305                 310                 315                 320
Arg Lys Asp Gly Pro Val Ile Val Val Ile Gly Ala Gly Met Ala Gly
                325                 330                 335
Leu Gly Cys Ala Arg Gln Leu Glu Gly Leu Phe Lys Gln Tyr His Asp
            340                 345                 350
Pro Leu Thr Ser Pro Arg Val Val Val Leu Glu Gly Arg Arg Arg Ile
        355                 360                 365
Gly Gly Arg Ile Tyr Ser His Pro Leu Arg Ser Leu Gln Ser Ser Lys
    370                 375                 380
Leu Ala Pro Gly Val Val Pro Lys Ala Glu Met Gly Ala Gln Ile Ile
385                 390                 395                 400
Val Gly Phe Glu His Gly Asn Pro Leu Asp Gln Ile Ile Arg Gly Gln
                405                 410                 415
Leu Ala Leu Pro Tyr His Leu Leu Arg Asp Ile Ser Thr Ile Tyr Asp
```

```
            420                 425                 430
Ile Asp Gly Ser Ala Val Asp Glu Val Gln Asp Ala Met Asp Glu Arg
        435                 440                 445
Leu Tyr Ile Asp Val Leu Asp Arg Ser Gly Leu Tyr Arg His Asn Ala
    450                 455                 460
Val Ile Val Pro Thr Ala Glu Gly Asp Arg Arg Leu Ile Asp Ser Gly
465                 470                 475                 480
Arg Asp Leu Thr Met Ser Asp Gly Leu Thr Val Arg Gln Tyr Glu Glu
                485                 490                 495
Ala Arg Ala Ala Gly Thr Val Glu Leu Leu Phe Pro Asn Lys Lys Val
            500                 505                 510
Arg Arg Gly Val Gly His Lys Thr Ala Asp Ile Lys Ala Thr Ile Pro
        515                 520                 525
Pro Val Pro Thr Asp Leu Gly Pro Ala Glu Glu Gln Pro Ala Ala Leu
    530                 535                 540
Ala Cys Gln Ala Met Gly Trp Lys Leu Lys Asp Gly Val Pro Pro Thr
545                 550                 555                 560
Ala Ser Leu Asn Leu Asp Pro Val Ala Lys Ala Ser Met Trp Pro Thr
                565                 570                 575
Leu Gly Ala Val Met Asp Glu Gly Val Lys Gln Tyr Gln Arg Met Leu
            580                 585                 590
Pro Leu Thr Pro Lys Asp Met Arg Leu Ile Asn Trp His Phe Ala Asn
        595                 600                 605
Leu Glu Tyr Ala Asn Ala Thr Asn Ile Gly Lys Leu Ser Leu Ser Gly
    610                 615                 620
Trp Asp Gln Asp Leu Gly Asn Glu Phe Glu Gly Glu His Ser Gln Val
625                 630                 635                 640
Ile Gly Gly Tyr Gln Gln Val Pro Tyr Gly Leu Trp Ser Leu Pro Thr
                645                 650                 655
Lys Leu Asp Val Arg Thr Asn Lys Ile Val Ser Lys Ile Ala Tyr Asp
            660                 665                 670
Ser Thr Gly Ser Gly Lys Arg Lys Thr Val Val His Cys Glu Asp Gly
        675                 680                 685
Glu Ser Phe Val Ala Asp Lys Val Val Phe Thr Ala Ser Leu Gly Val
    690                 695                 700
Leu Lys His His Ser Ile Glu Phe Ser Pro Pro Leu Pro Asp Trp Lys
705                 710                 715                 720
Arg Gly Ala Ile Glu Arg Leu Gly Phe Gly Val Met Asn Lys Val Ile
                725                 730                 735
Leu Val Phe Glu Glu Pro Phe Trp Asp Thr Glu Arg Asp Met Phe Gly
            740                 745                 750
Leu Leu Arg Glu Pro Lys Asn Arg Asp Ser Met Val Gln Glu Asp Tyr
        755                 760                 765
Ala Ala Asn Arg Gly Arg Phe Tyr Leu Phe Trp Asn Cys Met Lys Thr
    770                 775                 780
Thr Gly Leu Pro Val Leu Ile Ala Leu Met Ala Gly Asp Ala Ala His
785                 790                 795                 800
Gln Ala Glu Tyr Thr Pro Asp Gly Glu Ile Ile Ala Glu Val Thr Ser
                805                 810                 815
Gln Leu Arg Asn Ile Phe Lys His Val Ala Val Pro Asp Pro Leu Glu
            820                 825                 830
Thr Ile Ile Thr Arg Trp Ala Ser Asp Arg Phe Thr Arg Gly Ser Tyr
        835                 840                 845
Ser Tyr Val Ala Ala Gln Ala Leu Pro Gly Asp Tyr Asp Leu Met Ala
    850                 855                 860
Lys Pro Val Gly Asn Leu His Phe Ala Gly Glu Ala Thr Cys Gly Thr
```

865 870 875 880
His Pro Ala Thr Val His Gly Ala Tyr Leu Ser Gly Leu Arg Ala Ala
885 890 895
Ser Glu Ile Ile Glu Ser Val Leu Gly Pro Ile Glu Ile Pro Asn Pro
900 905 910
Leu Val Pro Glu Lys Gly Lys Ala Val Glu Leu Gly Thr Ser Val Ala
915 920 925
Thr Ala Gln Lys Lys Lys Glu Pro Pro Cys Ser Asn Gly Phe Ser Ala
930 935 940
Pro Val Ser Thr Ser Ala His Pro Thr Asp Ala Ser Ala Pro Ala Arg
945 950 955 960
Ser Asn Asn Ser Phe Ser Gly Asp Thr Ala Leu Arg Gln Ala Tyr Glu
965 970 975
Gln Ala Met Trp Ala Ala Ile His Ala Glu Xaa Gly Pro Pro Glu Pro
980 985 990
Arg Pro Ala Arg Thr Gly Leu Asn Pro Phe Leu Leu Tyr Gln Lys Asp
995 1000 1005
Tyr Trp Gly Lys Ala Arg Ala Gln Cys Asp Glu Thr Lys Gln Ala Thr
1010 1015 1020
Thr Lys Asp Pro Asn Ala Lys Ala Ala Arg Asp Glu Ile Arg Gln Ala
1025 1030 1035 1040
Leu Gly Leu Met Trp Arg Gln Ala Ser Glu Glu Glu Lys Arg Pro Tyr
1045 1050 1055
Ile Glu Gln Thr Glu Val Asn Arg Gln Thr Asn Thr Glu Ile Trp Asp
1060 1065 1070
Arg Trp Lys Gln Asn Thr Lys Glu Trp Glu Arg Lys Ser Leu Glu Ile
1075 1080 1085
Lys Lys Arg Trp Cys Ala Ala Asn Pro Phe Glu Thr Trp Gln Pro Pro
1090 1095 1100
Ala Lys Arg
1105

<210> 39508
<211> 222
<212> PRT
<213> A.fumigatus

<400> 39508
Ser Arg Val Asp Leu Ser Ser Lys Pro Phe Lys Leu Trp Thr Glu Trp
1 5 10 15
Asn Asp Gly Pro Asp Lys Glu Pro Ala Cys Thr Ala Asp Ala Val Ile
20 25 30
Ile Ala Thr Gly Ala Asn Ala Arg Arg Leu Asn Leu Pro Gly Glu Glu
35 40 45
Thr Tyr Trp Gln Asn Gly Ile Ser Ala Cys Ala Val Cys Asp Gly Ala
50 55 60
Val Pro Ile Phe Arg Asn Lys Pro Leu Tyr Val Ile Gly Gly Gly Asp
65 70 75 80
Ser Ala Ala Glu Glu Ala Met Phe Leu Ala Lys Tyr Gly Ser Ser Val
85 90 95
Thr Val Leu Val Arg Arg Asp Lys Leu Arg Ala Ser Lys Ala Met Ala
100 105 110
Lys Arg Leu Leu Ala His Pro Lys Val Thr Val Arg Phe Asn Thr Val
115 120 125
Ala Thr Glu Val Leu Gly Glu Lys Lys Pro Asn Gly Leu Met Thr His
130 135 140

```
Leu Arg Ile Lys Asn Thr Val Thr Gly Glu Glu Glu Ile Val Asp Ala
145                 150                 155                 160
Asn Gly Leu Phe Tyr Ala Val Gly His Asp Pro Ala Thr Ala Leu Val
                165                 170                 175
Lys Gly Gln Ile Asp Leu Asp Glu Asp Gly Tyr Ile Ile Thr Lys Pro
            180                 185                 190
Gly Thr Ser Tyr Thr Ser Arg Glu Gly Val Phe Ala Cys Gly Asp Val
        195                 200                 205
Gln Asp Lys Arg Tyr Arg Gln Ala Ile Thr Ser Ala Gly Leu
    210                 215                 220
```

<210> 39509
<211> 67
<212> PRT
<213> A.fumigatus

<400> 39509

```
Leu Gly Ser Gly Cys Ile Ala Ala Leu Glu Ala Glu Lys Phe Ile Ala
1               5                   10                  15
Glu Ala Glu Ser Pro Glu Glu Glu Pro Val Ala Val Ser Ala Gln Lys
            20                  25                  30
Ser Ala Asp Asn Ser Thr Ile Gln Pro Ala Ala Gln Glu Val Asn Gly
        35                  40                  45
Asp Val Lys Lys Asp Pro Lys Gly Ala Val Pro Glu Tyr Lys Ser Asn
    50                  55                  60
Pro Leu Leu
65
```

<210> 39510
<211> 218
<212> PRT
<213> A.fumigatus

<400> 39510

```
Asn Asp Leu Tyr Asp Cys Ser Phe Gln Pro Val Arg Thr Ala Ser Ser
1               5                   10                  15
Phe Ala Ala Thr Met Gln Trp Leu Ser Cys Trp Leu Pro Leu Leu Val
            20                  25                  30
Ala Ala Ser Ile Pro Arg Thr Leu Ala Ala Gln Asp Thr Asp Thr Ser
        35                  40                  45
Ala Thr Ser Thr Thr Thr Ala Thr Asn Ala Leu Phe Thr Ile Thr Gly
    50                  55                  60
Thr Ile Thr Asp His Val Ser Asp Ala Thr Leu Pro Thr Gly Thr Tyr
65                  70                  75                  80
Leu Ser Tyr Thr Ser Thr Arg Thr Leu Ser Thr Asp Ser Asp Gly Lys
                85                  90                  95
Val Leu Ser Ser Ile Ala Val Thr Asn Ala Thr Ala Val Gly Asn Ser
            100                 105                 110
Thr Ile His Thr Thr Ser Thr Asp Thr Met Thr Arg Leu Val Gly Asn
        115                 120                 125
Ala Thr Ala Asn Ala Thr Met Asn Gly Phe Gly Phe Gly Phe Asp Ile
    130                 135                 140
Ser Arg Cys Gln His Ser Ala Leu Gln Trp Pro Ser Pro Asn Pro Val
145                 150                 155                 160
Leu Ala Ser Thr Gln Thr Ser Pro Arg Val Gly Gly Ser Ile His Pro
                165                 170                 175
```

```
Leu Cys Gln Thr Arg Gln Cys Cys Cys Glu Pro Arg Ile Gly Gly Gly
            180                 185                 190
Gln Ser Val Glu Arg Arg Tyr Pro Asn Ala Tyr Val Leu Leu Lys Asn
        195                 200                 205
Ile Ser Phe Ala Arg Asp Gln Leu Leu Thr
    210                 215
```

<210> 39511
<211> 132
<212> PRT
<213> A.fumigatus

<400> 39511

```
Leu Asn Lys Lys Lys Glu Arg Ala Met Ala Glu Ser His Arg Ala Ser
1               5                   10                  15
Tyr Val Ser Leu His Val Arg Val Ser Asn Thr Ala Ala Leu Arg Leu
            20                  25                  30
Tyr Arg Asp Thr Leu Gly Phe Lys Val Glu Ser Val Glu Ser Lys Tyr
        35                  40                  45
Tyr Ala Asp Gly Glu Asp Ala Tyr Ala Met Arg Leu Asp Leu Thr Asp
    50                  55                  60
Gln Trp Leu Asp Trp Lys Glu Ile Glu Arg Lys Asp Arg Glu Arg Ala
65                  70                  75                  80
Lys Ser Asp Glu Lys Asp Ala Asp Glu Gly Asp Glu Val Gly Ser Leu
                85                  90                  95
Gly Lys Lys Glu Glu Lys Thr Val Arg Val Lys Val Gly Arg Ser Leu
            100                 105                 110
Gly Val Gly Asp Leu Val Glu Arg Asn Glu Ala Asn Pro Ser Gln Gln
        115                 120                 125
Ser Val Ser Ser
    130
```

<210> 39512
<211> 145
<212> PRT
<213> A.fumigatus

<400> 39512

```
Thr Lys Pro Lys Ser Lys Met Val Asp Ile Val Pro Leu Ser Ser Tyr
1               5                   10                  15
Pro Ser Tyr Ile Asp Leu Leu Pro Ser Ile Gln Thr Cys Asn Ile Thr
            20                  25                  30
Asn Leu Pro Glu Asn Tyr Phe Leu Lys Tyr Tyr Leu Tyr His Val Leu
        35                  40                  45
Thr Trp Pro Gln Leu Ser Phe Val Ala Val Val Arg Pro Arg Asn Gly
    50                  55                  60
Tyr Ala Lys His Lys Gly Gly Ala Ala Gly Thr Ser Ser Thr Gly Thr
65                  70                  75                  80
Ala Asp Leu Ser Gly Gln Tyr Pro Lys Val Val Gly Tyr Val Leu Ala
                85                  90                  95
Lys Met Glu Glu Glu Pro Thr Asp Gly Val Gln His Gly His Ile Thr
            100                 105                 110
Ser Leu Ser Val Met Arg Thr His Arg Arg Leu Gly Ile Ala Glu Arg
        115                 120                 125
Leu Met Arg Met Ser Arg Met Phe Pro Pro Phe Phe Thr Phe Pro Tyr
    130                 135                 140
```

Ser
145

<210> 39513
<211> 161
<212> PRT
<213> A.fumigatus

<400> 39513
Ile Lys Lys Lys Asn Ala Leu Trp Leu Ser Pro Ile Ala Pro Val Thr
1 5 10 15
Phe Arg Cys Met Cys Val Ser Pro Thr Leu Pro Pro Cys Val Cys Thr
20 25 30
Gly Ile Pro Leu Ala Ser Arg Ser Ser Pro Ser Arg Ala Ser Thr Met
35 40 45
Arg Met Glu Arg Met Arg Thr Pro Cys Ala Trp Thr Leu Pro Ile Asn
50 55 60
Gly Trp Thr Gly Arg Lys Leu Asn Ala Arg Thr Glu Ser Ala Leu Arg
65 70 75 80
Val Thr Lys Arg Thr Leu Met Arg Ala Thr Arg Leu Glu Val Trp Ala
85 90 95
Arg Arg Lys Lys Arg Pro Phe Ala Ser Arg Ser Asp Gly Val Trp Val
100 105 110
Ser Ala Ile Trp Trp Arg Gly Met Arg Pro Thr Leu Arg Asn Lys Ala
115 120 125
Ser Ala Arg Arg Lys Glu Ser Ser Tyr Ile Pro Leu Arg Ala Ser Pro
130 135 140
Leu Asp Ser Phe Glu Ser Trp Ala Asn Val Leu Asp Leu Gln Asn Met
145 150 155 160
Gln

<210> 39514
<211> 324
<212> PRT
<213> A.fumigatus

<400> 39514
Thr Thr Val Ser Glu Cys Val Arg Thr Leu Glu Glu His Leu Leu Cys
1 5 10 15
Glu Arg Pro Thr Ala Asn Leu Ile His Gly Thr Arg Val Val Gln Phe
20 25 30
Gln Thr His Tyr Glu Asn Gly Thr Met Tyr Leu Cys His Thr Ser Cys
35 40 45
Asp Leu Leu Asn Val Gly Thr Leu Thr Glu Tyr Leu Thr Thr Val Thr
50 55 60
Arg Trp Ile Arg Gln His Pro Tyr Asp Val Val Thr Ile Leu Ile Gly
65 70 75 80
Asn Tyr Asp Tyr Ala Ala Pro Gly Asn Phe Ser Lys Pro Ile Glu Asp
85 90 95
Ser Gly Leu Leu Asp Leu Val Tyr Met Pro Pro Lys Ile Pro Met Ala
100 105 110
Leu Asp Asp Trp Pro Thr Leu Ser Asn Met Ile Leu Ser Gly Lys Arg
115 120 125
Ala Val Val Phe Met Asp Tyr Gln Ala Asn Gln Thr Ala Leu Pro Trp
130 135 140

```
Leu Met Asp Glu Phe Ser Gln Met Trp Glu Thr Pro Phe Ser Pro Thr
145                 150                 155                 160
Asp Pro Thr Phe Pro Cys Thr Val Gln Arg Pro Pro Gly Leu Ser Asn
                165                 170                 175
Glu Asp Ala Tyr Asn Arg Leu Tyr Met Ala Asn His Asn Leu Asn Val
            180                 185                 190
Glu Val Asn Val Ala Asn Ile Asn Leu Leu Ile Pro Asn Thr Ala Glu
        195                 200                 205
Leu Asn Gln Thr Asn Ala Val Ser Gly Pro Gly Ser Leu Gly Trp Met
    210                 215                 220
Ala Glu Asn Cys Thr Ser Lys Leu Ile Ser Cys Pro Ala Ser Arg Tyr
225                 230                 235                 240
Lys Glu Arg Met Ser Ala Ser Asn Leu Ser Ile Ala Met Trp Asn Arg
                245                 250                 255
Pro Pro Asn Phe Leu Leu Val Asp Tyr Tyr Asn Tyr Gly Asn Phe Asn
            260                 265                 270
Gly Ser Val Phe Glu Val Ala Ala Gln Met Asn Asn Val Thr Tyr Asn
        275                 280                 285
Gly Glu Cys Cys Gly Ser Thr Ser Ala Ala Phe Ser Leu Met Pro Ala
    290                 295                 300
Gly Ala Leu Trp Asn Ala Leu Leu Val Val Ala Ser Val His Leu Phe
305                 310                 315                 320
Ala Ser Ile Phe
```

<210> 39515
<211> 257
<212> PRT
<213> A.fumigatus

<400> 39515

```
Ile Ala Leu Val Arg Trp Ile Tyr His Cys Ile Phe Cys Arg Ser Ser
1               5                   10                  15
Thr Phe Ala Gln Asp Ser Lys Leu Ser Arg Gly Leu Ala Leu Arg Gly
            20                  25                  30
Ile Tyr Asp Asp Ser Phe Leu Arg Ala Asp Ala Leu Leu Arg Arg Val
        35                  40                  45
Gly Leu Ile Pro Leu His Gln Ile Ala Asp Thr Gln Thr Pro Ser Asp
    50                  55                  60
Leu Asp Ala Asn Gly Leu Phe Phe Leu Leu Ala Gln Thr Ser Asn Leu
65                  70                  75                  80
Val Ala Leu Ile Ser Val Leu Phe Val Thr Leu Ser Ala Leu Ser Val
                85                  90                  95
Leu Ala Phe Asn Phe Leu Pro Val Gln Pro Leu Ile Gly Lys Val Gln
            100                 105                 110
Ala His Gly Val Arg Ile Leu Ser Ile Arg Ile Val Leu Ala Leu Asp
        115                 120                 125
Gly Leu Asp Leu Glu Ala Lys Gly Ile Pro Val Gln Thr Gln Gly Gly
    130                 135                 140
Ser Val Gly Asp Thr His Met Gln Arg Asn Val Thr Gly Ala Met Gly
145                 150                 155                 160
Leu Ser His Ser Ala Phe Phe Phe Phe Ile Gln Ser Asn Ala Val Ser
                165                 170                 175
Gln Glu Tyr Gly Asn Val Lys Lys Gly Gly Asn Ile Arg Leu Ile Leu
            180                 185                 190
Ile Asn Leu Ser Ala Ile Pro Asn Arg Arg Cys Val Arg Ile Thr Leu
```

```
        195                 200                 205
Lys Leu Val Ile Cys Pro Cys Cys Thr Pro Ser Val Gly Ser Ser Ser
    210                 215                 220
Ile Phe Ala Ser Thr Tyr Pro Thr Thr Leu Gly Tyr Cys Pro Glu Arg
225                 230                 235                 240
Ser Ala Val Pro Val Leu Asp Val Pro Ala Ala Pro Pro Leu Cys Phe
                245                 250                 255
Ala
```

<210> 39516
<211> 124
<212> PRT
<213> A.fumigatus

<400> 39516

```
Arg Val Met Ser Thr Pro Ser Pro Arg Thr Ala Met Arg Lys Pro Ala
1               5                   10                  15
Ala Asn Val Ala Tyr Ile Leu Gly Ser Glu Val Gly Thr Gln Ser Thr
            20                  25                  30
Thr Arg Phe Ile Ala Phe Lys Ala Leu Pro Pro Ile Gln Leu Arg Arg
        35                  40                  45
Lys Arg Gln Tyr Arg Ser Ser Gly Thr Val Ser Glu Thr Asp Trp Val
    50                  55                  60
Arg Ser Ile Cys Glu Glu Ile Glu Arg Ala Met Met Ala Gly Glu Gly
65                  70                  75                  80
Pro Arg Pro Gly Glu Gly Gly Lys Pro Pro Ser Val Val Glu Asn Ser
                85                  90                  95
Glu Ile Ile Ser Leu Glu Asp Ala Lys Lys Arg Thr Gly Ile Leu Glu
            100                 105                 110
His Leu Val Tyr Asp Ile Lys Lys Leu Val Trp Ala
        115                 120
```

<210> 39517
<211> 533
<212> PRT
<213> A.fumigatus

<400> 39517

```
Arg Gly Arg Leu Ala Asp Pro Gly Tyr Pro Gln Phe Phe Trp Asn Lys
1               5                   10                  15
Asn Leu Met Asn Pro Phe Ile Lys Ala Asp Ala His Ser Phe Ile Leu
            20                  25                  30
Pro Leu Val Gln Gly Phe Val Gly Gln Arg Glu Phe Thr Val Ser Ala
        35                  40                  45
Lys Ser Glu Gln Pro Asp Ser Asn Val Ala Glu Glu His Thr Glu Gly
    50                  55                  60
Arg Met Leu Gly Glu Lys Asp Glu Ser Gln Ser Ile Lys Val Asp Ala
65                  70                  75                  80
Ala Lys Arg Asn Phe Leu Leu Thr Leu Ile Ser Arg Arg Ser Val Lys
                85                  90                  95
Arg Pro Gly Leu Arg Tyr Leu Arg Arg Gly Val Asp Asp Glu Gly Asn
            100                 105                 110
Thr Ala Asn Thr Val Glu Thr Glu Gln Ile Leu Ser Val Pro Ser Trp
        115                 120                 125
Asp Pro Gly His Asn Val Tyr Ser Tyr Leu Gln Val Arg Gly Ser Ile
```

```
    130                 135                 140
Pro Leu Tyr Phe Ser Gln Ser Pro Tyr Ala Phe Arg Pro Val Pro Val
145                 150                 155                 160
Leu Tyr His Ser Thr Glu Thr Asn Gln Phe Ala Phe Asp Arg His Phe
                165                 170                 175
Arg Asn Leu Ala Arg Arg Tyr Gly Lys Leu Gln Ala Val Ser Leu Ile
            180                 185                 190
Asp Lys Gln Ala Gly Glu Leu Lys Leu Gly Asn Glu Tyr Glu Lys Tyr
        195                 200                 205
Ala Arg Val Leu Asn Asp Ser Gly Gly Ile Asp Gly Val Pro Leu Arg
    210                 215                 220
Met Glu Trp Phe Asp Phe His Asn Glu Cys Arg Gly Met Lys Phe Glu
225                 230                 235                 240
Asn Val Ser Arg Leu Val Lys Arg Leu Glu Ser Val Leu Asn Glu Tyr
                245                 250                 255
Ser Asp Thr Ile Val Arg Asn Gly Thr Val Thr Arg Ser Gln Thr Gly
            260                 265                 270
Ile Ile Arg Thr Asn Cys Met Asp Cys Leu Asp Arg Thr Gly Val Ala
        275                 280                 285
Gln Cys Ala Phe Gly Gln Trp Ala Leu Glu Arg Glu Leu Lys Leu Glu
    290                 295                 300
Gly Ile Asp Ile Asp Leu Ser Arg Asp Ser Ser Thr Gln Trp Phe Asn
305                 310                 315                 320
Thr Leu Trp Ala Asp Asn Gly Asp Ala Ile Ser Lys Gln Tyr Ser Ser
                325                 330                 335
Thr Ala Ala Leu Lys Gly Asp Tyr Thr Arg Thr Arg Lys Arg Asp Tyr
            340                 345                 350
Arg Gly Ala Leu Asn Asp Leu Gly Leu Thr Leu Ser Arg Tyr Tyr Asn
        355                 360                 365
Asn Ile Val Asn Asp Tyr Phe Ser Gln Ala Cys Ile Asp Tyr Leu Leu
    370                 375                 380
Gly Asn Val Ser Thr Arg Ile Phe Ala Glu Phe Ala Met Glu Met Arg
385                 390                 395                 400
Thr Ala Asp Pro Gly Ile Ser Val Gln Lys Leu Arg Arg Ser Ala Ile
                405                 410                 415
Asp Thr Ser Cys Lys Ile Val Ile Ser Asp Gln Ser Glu Glu Phe Leu
            420                 425                 430
Gly Gly Trp Thr Met Leu Thr Pro Arg Gln Pro Asn Thr Leu Arg Thr
        435                 440                 445
Leu Pro Phe Glu Glu Ala Val Leu Leu Leu Thr Asp Ala Ala Val Tyr
    450                 455                 460
Ser Cys Arg Phe Asp Trp Asn Thr Asp Lys Val Thr Ser Phe Glu Arg
465                 470                 475                 480
Ile Asp Leu Arg Ser Ile Ser Arg Leu Asn Tyr Gly Thr Tyr Ile Thr
                485                 490                 495
Ser Ile Leu Thr Glu Ser Gln Ala Asn Glu Gln Gly Asn Val Gly Leu
            500                 505                 510
Val Ile Glu Tyr Arg Asp Gly Gly Arg Glu Arg Leu Ala Arg Gln His
        515                 520                 525
Pro Val Ser Glu Glu
    530
```

<210> 39518
<211> 135
<212> PRT
<213> A.fumigatus

<400> 39518
Arg Ser Thr Pro Pro Cys Pro Ser Asp Leu Pro Leu Ser Thr Val Thr
1 5 10 15
Ile Ser Pro Leu Phe Ser Arg Ala Leu Tyr Leu His Thr Leu Ala Leu
20 25 30
Leu Ala Gly Val Leu Leu Val Thr Val Ala Pro Pro Leu Arg Leu Thr
35 40 45
Ser Pro Thr Phe Arg Leu Ser Ser Val Leu Arg Gln Leu Arg Gly Ser
50 55 60
Arg Leu Pro Thr Thr Thr Ala Val Tyr Asn Ser Ala Leu Thr Asp Leu
65 70 75 80
Arg Lys Ser Leu Thr Thr Ala Ser Met Gly Ser Arg Thr Ser Thr Ser
85 90 95
Ala Ala Ala Gly Pro Ala Pro Leu Tyr Arg Asp Cys Ser Val His Arg
100 105 110
Arg Arg Cys Gln Ala Pro His Arg Asp Ile Pro Gln Ser Ala Gly Gln
115 120 125
His Arg Cys Glu Cys Gln Ala
130 135

<210> 39519
<211> 428
<212> PRT
<213> A.fumigatus

<400> 39519
Glu Tyr His Gly Ala Arg Ile His Ile Leu Ser Phe Tyr Gln Ala Val
1 5 10 15
Ser Thr Asp Gln Glu Leu Arg Asp Ala Ser Ser Lys Ala Glu Glu Leu
20 25 30
Met Asp Glu Phe Phe Ile Glu Thr Val Met Arg Glu Asp Val Phe Lys
35 40 45
Leu Val Asp Ala Val Leu Lys Lys Asn Glu Ser Leu Asp Pro Glu Ser
50 55 60
Arg Arg Leu Leu Glu Lys Glu His Lys Asp Tyr Ile Arg Asn Gly Leu
65 70 75 80
Gly Leu Pro Ala Gly Pro Lys Arg Asp Arg Phe Lys Glu Ile Lys Lys
85 90 95
Arg Leu Ser Gln Ile Ser Ile Glu Phe Gln Lys Asn Leu Asn Glu Glu
100 105 110
Asn Gly Gly Ile Trp Phe Thr Arg Glu Glu Leu Asp Gly Val Pro Glu
115 120 125
Asp Val Leu Ser Gly Leu Lys Lys Gly Glu Gly Glu His Glu Gly Lys
130 135 140
Leu Trp Leu Thr Phe Lys Tyr Pro Asp Leu Phe Pro Thr Met Lys Tyr
145 150 155 160
Ala Lys Asn Ala Glu Thr Arg Lys Arg Leu Met Ile Glu Asn Glu Asn
165 170 175
Lys Cys Asn Gln Asn Val Pro Leu Phe Arg Glu Ala Ile Ile Leu Arg
180 185 190
Asp Glu Ala Ala Arg Leu Leu Gly Tyr Pro Asn His Ala Ala Phe Arg
195 200 205
Ile Glu Asp Lys Met Ala Lys Thr Pro Lys Thr Val Asp Asp Phe Leu
210 215 220
Gly Asp Leu Arg Ser Arg Leu Thr Ala Gly Gly His Lys Glu Ile Lys

225 230 235 240
Ala Leu Leu Glu Leu Lys Lys Ala Asp Leu Glu Ser Arg Gly Glu Pro
245 250 255
Phe Asp Gly Arg Tyr Tyr Leu Trp Asp His Arg Phe Tyr Asp Arg Leu
260 265 270
Met Leu Glu Lys Asp Tyr Ser Leu Asp Gln Gln Leu Ile Ala Glu Tyr
275 280 285
Phe Pro Leu Gln Thr Thr Ile Glu Gly Met Leu Lys Ile Phe Glu Glu
290 295 300
Leu Phe Gly Leu Val Phe Val Glu Ile Thr Gly Glu Asp Arg Glu Lys
305 310 315 320
Val Ala Pro Thr Gly Lys Gly Ser Asp Ile Val Trp His Glu Asp Val
325 330 335
Gln Val Phe Ser Val Trp Asn Asp Glu Gly Glu Gly Ser Gly Phe Val
340 345 350
Gly Tyr Leu Tyr Leu Asp Leu Phe Pro Arg Pro Gly Lys Tyr Gly His
355 360 365
Ala Ala Asn Phe Asn Leu Gln Pro Val Cys Glu Thr His Lys Ser His
370 375 380
Ile Thr Arg Leu Thr Ile Val Arg Ala Ser Ser Thr Leu Thr Ala Ser
385 390 395 400
Gly Ala Thr Arg Pro Leu His Trp Cys Ala Ile Ser Pro Ser Pro Arg
405 410 415
Pro Arg Asn Leu Val Ser Ser Ser Thr Thr Arg Trp
420 425

<210> 39520
<211> 291
<212> PRT
<213> A.fumigatus

<400> 39520
Asp Thr Thr His Ser Asn Pro Thr Leu Asn Leu Arg Gln Leu Gln Leu
1 5 10 15
Thr Thr Ser His Lys Ile Arg Ser Ser Val Gly Val Asn Leu Thr Asn
20 25 30
Pro Arg Gln Pro Pro Ala Arg Val Thr Leu Thr Pro Pro Lys Glu Asn
35 40 45
Thr Met Ser Thr Thr Asn Pro Ser Ala Ser Pro Ser Arg Ser Pro Ala
50 55 60
Pro Arg Gln Gln Asp Asp Gln Pro Gln Gln Gln Glu Gln Glu Gln Gln
65 70 75 80
Gln Gln Gln Gln Gln Gln Arg Leu Lys Val His Thr His His Cys Arg
85 90 95
Phe Cys Asn His Leu Leu Leu Ala Thr Thr Arg Thr Ile Ala Thr Leu
100 105 110
Pro Arg Arg Lys Ala Pro Ala Gln Asp Asn Ala Leu Ile Leu Pro Leu
115 120 125
Pro His Ala Asp Glu Asp Glu Asp Glu Asp Asp Asp Asp Asp Asn Asp
130 135 140
Asp Glu Lys Lys Glu Glu Glu Lys Pro Asp Ala Thr Thr Ser Pro Glu
145 150 155 160
Pro Gly Ser Glu Thr Asn Gln Thr Ile Arg Thr Glu Gly Glu Ala Glu
165 170 175
Ser Glu Gly Gln Ala Gly Arg Lys Arg Arg Lys Gln Lys His Tyr Thr
180 185 190

```
Ile Leu Leu Ser Thr Thr Leu Pro Asp Arg Lys Ala Thr Leu Ile Arg
        195                 200                 205
Arg Glu Asp Gly Phe Glu Lys Arg Arg Phe Leu Arg Cys Gly Arg Cys
    210                 215                 220
Arg Val Val Val Gly Tyr Phe Leu Asp Ala Val His Phe Pro Val Val
225                 230                 235                 240
Arg Arg Ala Glu Asp Val Val Glu Gly Glu Gly Ala Ser Gln Glu Pro
                245                 250                 255
Arg Val Val Tyr Leu Leu Pro Gly Ala Leu Met Glu Thr Glu Ile Met
            260                 265                 270
Gly Asp Glu Glu Lys Met Glu Ala Leu Asp Arg Glu Trp Ser Gly Trp
        275                 280                 285
Ile Ala Gln
    290
```

<210> 39521
<211> 83
<212> PRT
<213> A.fumigatus

<400> 39521

```
Leu Ile Phe Ala Ser Pro Ser Pro Pro Leu Ala Trp Ala Pro Glu His
1               5                   10                  15
Leu Arg Arg Pro Pro Gln Ala Pro Pro Leu Phe Thr Ala Thr Ala Gln
            20                  25                  30
Ser Ile Val Asp Asp Ala Lys Arg Leu Ile Glu Thr Ser Arg Lys Val
        35                  40                  45
Gln Asp Asn Ile Val Ala Asn Val Lys Pro Asp Ser Ala Thr Phe Asp
    50                  55                  60
Ser Val Leu Lys Pro Leu Ala His Asp Glu Asn Thr Met Ala Leu Glu
65                  70                  75                  80
Ser Thr Phe
```

<210> 39522
<211> 90
<212> PRT
<213> A.fumigatus

<400> 39522

```
Cys Arg Ile Leu Arg Ile Ser Gln Val Ser Phe Phe Leu Tyr Phe Val
1               5                   10                  15
Phe Cys Val Leu Ala Ile Leu Thr Asp Cys Ser Ser Gln Val Tyr Ser
            20                  25                  30
Thr Asp Met Phe Tyr Thr Val Phe Lys Asp Asp Pro Met Asn Pro Ala
        35                  40                  45
Ala Gly Arg Arg Tyr Arg Tyr Gly Val Leu Glu Lys Gly Gly Ser Gln
    50                  55                  60
Asp Glu Met Lys Thr Leu Thr Asp Phe Leu Gly Arg Glu Pro Lys Thr
65                  70                  75                  80
Asp Ala Phe Tyr Lys Glu Leu Gly Leu Ala
                85                  90
```

<210> 39523
<211> 278
<212> PRT

<213> A.fumigatus

<400> 39523

```
Tyr Cys Leu Ala Arg Ile Leu Pro Pro Pro Val Val Glu Asp Val Ala
1               5                  10                  15
Gly Leu Gly Trp Gly Asp Trp Phe Gly Gly Phe Ile Tyr Ala Gly Ile
            20                  25                  30
Leu Arg Ile Phe Phe Val Gln Gln Ala Thr Phe Cys Val Asn Ser Leu
        35                  40                  45
Ala His Trp Leu Gly Asp Gln Pro Phe Asp Asp Arg Asn Ser Pro Arg
    50                  55                  60
Asp His Val Ile Thr Ala Leu Val Thr Leu Gly Glu Gly Tyr His Asn
65                  70                  75                  80
Phe His His Glu Phe Pro Ser Asp Tyr Arg Asn Ala Ile Glu Trp His
                85                  90                  95
Gln Tyr Asp Pro Thr Lys Trp Thr Ile Trp Ile Trp Lys Gln Leu Gly
            100                 105                 110
Leu Ala Tyr Asp Leu Lys Gln Phe Arg Ala Asn Glu Ile Glu Lys Gly
        115                 120                 125
Arg Ile Gln Gln Leu Gln Lys Lys Ile Asp Gln Lys Arg Ala Lys Leu
    130                 135                 140
Asp Trp Gly Ile Pro Leu Asp Gln Leu Pro Val Met Glu Trp Asp Asp
145                 150                 155                 160
Tyr Val Glu Gln Ala Lys Asn Gly Arg Gly Leu Ile Ala Ile Ala Gly
                165                 170                 175
Val Val His Asp Val Thr Asp Phe Ile Lys Asp His Pro Gly Gly Lys
            180                 185                 190
Ala Met Ile Asn Ser Gly Ile Gly Lys Asp Ala Thr Ala Met Phe Asn
        195                 200                 205
Gly Gly Val Tyr Asn His Ser Asn Ala Ala His Asn Leu Leu Ser Thr
    210                 215                 220
Met Arg Val Gly Val Ile Arg Gly Gly Cys Glu Val Glu Ile Trp Lys
225                 230                 235                 240
Arg Ala Gln Lys Glu Ser Gly Glu Tyr Val Arg Asp Glu Ser Gly Gln
                245                 250                 255
Arg Ile Ile Arg Ala Gly Gln Gln Val Thr Lys Ile Pro Asp Pro Ile
            260                 265                 270
Pro Thr Ala Asp Ala Ala
        275
```

<210> 39524
<211> 224
<212> PRT
<213> A.fumigatus

<400> 39524

```
Glu Ser Tyr His Ser Thr Asn Asn Cys Lys Gly Phe Ile Asp Ala Asp
1               5                  10                  15
Gly Lys Arg Arg Tyr Pro Ala Thr Ala Leu Val Cys Asn Phe Thr Lys
            20                  25                  30
Pro Thr Ala Lys Lys Pro Ser Leu Leu Lys His Asp Glu Val Val Thr
        35                  40                  45
Leu Phe His Glu Leu Gly His Gly Ile His Asp Leu Val Ser Arg Thr
    50                  55                  60
Ile Tyr Ser Arg Phe His Gly Thr Ser Thr Val Arg Asp Phe Val Glu
65                  70                  75                  80
```

```
Ala Pro Ser Gln Met Leu Glu Asn Trp Cys Trp Thr Pro Ser Gln Leu
                85                  90                  95
Lys Ser Leu Ser Lys His Tyr Ser Thr Leu Ser Pro Glu Tyr Leu Ala
            100                 105                 110
Ala Trp Gln Glu Gln Ala Asn Gly Lys Pro Gln Pro Pro Glu Arg Ile
        115                 120                 125
Pro Asp Glu Ile Ile Glu Asn Leu Ile Arg Thr Lys His Val Asn Asp
    130                 135                 140
Ala Leu Phe Asn Leu Arg Gln Leu His Phe Gly Ile Phe Asp Met Thr
145                 150                 155                 160
Val His Glu Ala Glu Ser His Glu Gln Ile Gln Lys Leu Pro Ile Ser
                165                 170                 175
Thr Thr Tyr Asn Gln Leu Arg Lys Gln Ile Ala Leu Gln Asp Gly Pro
            180                 185                 190
Glu Val Leu Gly Met Gly Asp Glu Trp Gly His Gly Glu Ala Thr Phe
        195                 200                 205
Gly His Leu Ile Gly Gly Tyr Asp Ala Gly Tyr Tyr Gly Tyr Leu Arg
    210                 215                 220
```

<210> 39525
<211> 72
<212> PRT
<213> A.fumigatus

<400> 39525

```
Gln Ala Asp Ser Ala Leu Val Asp Phe Glu Ser Phe Leu Lys Val Leu
1               5                   10                  15
Asn Arg Pro Gly Gly Phe Arg Glu Pro Gly Glu Pro Glu Glu Tyr Cys
            20                  25                  30
Arg Gly Phe Gln Val Phe Asp Lys Asp Met Thr Gly Phe Ile Gly Val
        35                  40                  45
Gly Gln Leu Arg Tyr Ser Met Leu Phe Cys Val Ala Leu Cys Val Gln
    50                  55                  60
Leu Ala Gly Gly Leu Gly Ala Asp
65                  70
```

<210> 39526
<211> 77
<212> PRT
<213> A.fumigatus

<400> 39526

```
Cys Arg Asn Lys Leu Cys His Leu Ile Trp Ile Val Gly Val Ser His
1               5                   10                  15
Pro Ser Leu Val Val Thr Thr Thr Thr Thr Arg Leu Asn Thr Ala Lys
            20                  25                  30
Pro Thr Pro Gly Gln Leu Leu Ile Phe Ala Pro Pro Arg Met Ile Ile
        35                  40                  45
Ser Gln Ser Ser Ile Tyr Ala Val Ile Phe Val Phe Val Arg Ile Tyr
    50                  55                  60
His Cys Leu Pro Ser Glu Gln Tyr Ser Cys Arg Arg His
65                  70                  75
```

<210> 39527
<211> 110
<212> PRT

<213> A.fumigatus

<400> 39527

```
Thr Ser Leu Pro His Cys Ile Phe His Pro Gln Leu Leu Pro Phe Ile
1               5                  10                  15
Ile His Pro Thr Phe Phe Leu Leu Glu Asn Ser Pro Phe Leu Lys Met
            20                  25                  30
Pro Arg Ser Pro Asp Ser His Asn Asp Gln Ala Ser Thr Asn Tyr Lys
        35                  40                  45
Glu Ala Phe Ser Leu Phe Asp Lys Arg Gly Thr Gly Lys Val Ser Leu
    50                  55                  60
Glu Ser Leu Gly Asp Leu Leu Arg Ala Cys Gly Gln Asn Pro Thr Leu
65                  70                  75                  80
Ala Glu Ile Ala Asp Leu Glu Lys Ser Ile Gly Gly Asp Cys Lys Leu
                85                  90                  95
Leu Leu Val Ser Gly Ala Arg Cys Ser Lys Leu Thr Val Arg
            100                 105                 110
```

<210> 39528
<211> 90
<212> PRT
<213> A.fumigatus

<400> 39528

```
Leu Gly Leu Leu Gly Trp Gly Ser Cys Ala Ile Val Cys Cys Ser Ala
1               5                  10                  15
Leu Arg Cys Ala Phe Ser Trp Leu Gly Asp Trp Val Leu Thr Asp Val
            20                  25                  30
Val Leu Thr Asn Leu Gly Glu Lys Met Ser Asp Glu Glu Val Asp Glu
        35                  40                  45
Leu Leu Lys Ala Val Asp Thr Ser Ser Gly Glu Ile Asn Tyr Thr Gly
    50                  55                  60
Met Phe Ser Cys Leu Ile Tyr Ser Glu Trp Leu Thr Leu Thr Ser Ile
65                  70                  75                  80
Ala Glu Leu Val Arg Thr Ile Leu Ala Asn
                85                  90
```

<210> 39529
<211> 171
<212> PRT
<213> A.fumigatus

<400> 39529

```
Arg Ala Arg Asn Leu Ser Ser Pro Gly His Asp Leu Ala Gln Arg Gln
1               5                  10                  15
Pro Leu Gly Pro Gly Leu Pro Arg Ser Ala Gly Gly Leu Pro Val Arg
            20                  25                  30
Ala Arg Gly His Gly Glu Pro Ala Val Pro Gln Val Arg Val Ala Asp
        35                  40                  45
Asp Ala Gly Gly Gly Gln Ala Ala Pro Ala Gly Asp Pro Gly Arg Arg
    50                  55                  60
His Arg Arg Val Leu Gln His Pro His Arg Ala Leu Tyr Gln Pro His
65                  70                  75                  80
His Tyr Gly Pro Ala Ala Pro Tyr Leu Ser Gln Arg Val Arg Gln Asp
                85                  90                  95
Ser Ser Val His His Ala Leu Asp Cys Arg Gly Asp Leu Gly Asp Gly
```

```
            100                 105                 110
Ser Val Pro Pro Pro Val Leu Arg Arg Arg Arg Leu Val Pro Leu His
        115                 120                 125
Gln Gly Gly Arg Arg Pro Trp Gln Ala Val Arg Gly Gly Arg Pro His
    130                 135                 140
Ala Arg Gly Ala Pro Gly Gln Gly Ser Arg Arg Arg Gln Arg Pro Val
145                 150                 155                 160
Arg Ala Ala Gln His Gln Glu Pro Val Arg Gly
                165                 170
```

<210> 39530
<211> 89
<212> PRT
<213> A.fumigatus

<400> 39530

```
Asp Ser Thr Gly Gln Phe Pro Gly Pro Thr Ile Glu Ala Asp Trp Gly
1               5                   10                  15
Asp Thr Ile Arg Thr Thr Leu Leu Ala Tyr Thr Cys Lys Leu Leu Thr
            20                  25                  30
Gly Thr Gly Ile Ser Val Tyr Asn Asn Phe Thr Asp Asn Asn Asn Gly
        35                  40                  45
Ser Ala Ile His Trp His Gly Leu Arg Gln Phe Glu Asn Asn Val Gln
    50                  55                  60
Asp Gly Val Pro Gly Val Thr Gln Cys Pro Ser Lys Val Thr Ile Ser
65                  70                  75                  80
Pro Ala Glu Tyr Arg Arg Arg Ser Asp
                85
```

<210> 39531
<211> 204
<212> PRT
<213> A.fumigatus

<400> 39531

```
Glu Arg Gly Thr Tyr Pro Ala Arg Gly Thr Ile Leu Leu Asn Gly Ser
1               5                   10                  15
His Ser Ala Leu Gly Tyr Pro Gly Gln Leu Ala Gly Phe Gln Tyr Val
            20                  25                  30
His Glu Val Met Ala Asn Pro Leu Phe Arg Lys Phe Val Trp Gln Met
        35                  40                  45
Met Gln Glu Glu Val Lys Pro Leu Leu Pro Glu Ile Pro Gly Val Asp
    50                  55                  60
Ile Asp Glu Tyr Cys Asn Thr Leu Ile Glu Arg Phe Thr Asn Pro Thr
65                  70                  75                  80
Ile Met Asp Gln Leu Pro Arg Ile Cys Leu Asn Ala Ser Gly Lys Ile
                85                  90                  95
Pro Gln Phe Ile Met Pro Ser Ile Ala Glu Ala Ile Trp Glu Thr Gly
            100                 105                 110
Pro Phe Arg Arg Leu Cys Phe Val Ala Ala Ala Trp Phe His Tyr Ile
        115                 120                 125
Lys Gly Val Asp Asp Arg Gly Lys Pro Phe Glu Val Val Asp Pro Met
    130                 135                 140
Arg Glu Glu Leu Gln Ala Lys Ala Arg Ala Gly Gly Asn Asp Pro Ser
145                 150                 155                 160
Glu Leu Leu Ser Ile Lys Ser Leu Phe Gly Asp Asp Leu Arg Asn Asp
```

```
                165                 170                 175
Glu Arg Phe Leu Arg Glu Ile Thr Thr Ala Met Asn Asp Ile Ala Arg
            180                 185                 190
Asp Gly Ile Met Lys Thr Leu Pro Lys Tyr Ile Asn
        195                 200
```

<210> 39532
<211> 76
<212> PRT
<213> A.fumigatus

<400> 39532

```
Arg Ile Glu Thr Asn Ala Asn Ser Cys Ser Glu Thr Ile Ala Val Ile
1               5                   10                  15
Glu Glu Pro Arg Cys Lys Asp Glu Asn Cys Pro Asp Ser Gln Phe Gly
            20                  25                  30
Tyr Ile Lys Glu Leu Gly Leu Val Asp Leu Val Arg Thr Asn His Pro
        35                  40                  45
Ala Gly Arg Phe Lys Asp Leu Cys Val Val Glu Thr Ala Ser Met Gln
    50                  55                  60
Ile Thr Ile Gln Thr Pro Phe Ile Ser Arg Leu Leu
65                  70                  75
```

<210> 39533
<211> 111
<212> PRT
<213> A.fumigatus

<400> 39533

```
Arg Arg Leu Pro Pro Leu Tyr Asp Arg Gly Phe Arg Pro Asp Asp Gln
1               5                   10                  15
Gly Pro Asp Gly Lys Ile Trp Arg Gln Ala Met Asp Asp Gly Gly Phe
            20                  25                  30
Ala Leu Leu Pro Leu Tyr Thr Arg Leu Leu Thr Glu Gln Val His Asn
        35                  40                  45
Thr Thr Ala Thr Arg Ala Leu Met Ala Glu Leu Cys Asp Ser Gln Met
    50                  55                  60
Thr Asn Val Val Asp Phe Asp Cys Phe Ser Gln Val Val Phe Glu Ser
65                  70                  75                  80
Leu Glu Asp Tyr Lys Arg Met Lys Gln Asp Pro Trp Tyr Lys Glu His
                85                  90                  95
Leu Phe His Asp His Glu Asn Phe Ala Asp Thr Lys Lys Ser Met
            100                 105                 110
```

<210> 39534
<211> 275
<212> PRT
<213> A.fumigatus

<400> 39534

```
Ser Ser Tyr Ala Asn Val Ala Ile Leu Lys Thr Ser Pro Gly Pro Ile
1               5                   10                  15
Val Ile His Gly Pro Ser Ser Met Asp Trp Asp Glu Asp Leu Gly Pro
            20                  25                  30
Trp Leu Leu His Asp Trp Tyr His Asp Asp Val Phe Ser Leu Leu Trp
        35                  40                  45
```

```
Val Gly Glu Thr Lys Asn Arg Gly Ala Ile Pro Glu Ser Thr Ile Leu
    50                  55                  60
Asn Gly Lys Gly Lys Phe Asp Cys Asn His His Asn Asp Thr Arg Cys
65                  70                  75                  80
Thr Gly Thr Gly Gly Glu Tyr Phe Glu Val Asn Phe Arg Lys Gly Val
                85                  90                  95
Arg Tyr Lys Leu Thr Ile Ala Asn Thr Gly Thr Leu Leu Glu Tyr Met
            100                 105                 110
Phe Trp Ile Asp Gly His Asn Leu Thr Val Ile Ala Ala Asp Phe Val
        115                 120                 125
Pro Ile Glu Pro Tyr Val Thr Asp Val Val Asn Val Ala Met Gly Gln
    130                 135                 140
Arg Tyr Glu Ile Ile Val Glu Ala Asn Ala Asp Phe Thr His Gly Ser
145                 150                 155                 160
Asn Phe Trp Ile Tyr Ala Gln Tyr Cys Asp Glu Val Asp Leu Leu Pro
                165                 170                 175
His Lys Ala Val Gly Ile Val Arg Tyr Asp Glu Gln Asp Arg Gln Asp
            180                 185                 190
Pro Arg Thr Pro Pro Leu Gly Asp Gln His Arg Asp Phe Gly Cys Glu
        195                 200                 205
Asp Pro Asp Leu Asp Asn Leu Val Pro Val Val Gln Gln Ser Val Gly
    210                 215                 220
Arg Arg Val Asn Arg Met Glu Met Lys Asp Tyr Leu Arg Met Gly Gln
225                 230                 235                 240
Glu Gly Tyr Pro Asp Pro Met Asn Phe Asp Gly Asp Leu His Lys Trp
                245                 250                 255
Val Leu Gly Asp Val Pro Ser Ser Pro Arg Gly Trp Lys Asp Pro Arg
            260                 265                 270
Trp Arg Met
        275
```

<210> 39535
<211> 138
<212> PRT
<213> A.fumigatus

```
<400> 39535
Cys Arg Arg Arg Ser Ser Arg Ser Cys Arg Arg Ser Arg Ala Ser Thr
1               5                   10                  15
Ser Thr Ser Ile Ala Thr Pro Ser Ser Ser Ala Leu Pro Thr Pro Pro
            20                  25                  30
Leu Trp Thr Ser Cys Pro Val Ser Val Ser Thr Arg Pro Ala Arg Phe
        35                  40                  45
Leu Ser Ser Ser Cys Pro Arg Leu Pro Arg Arg Ser Gly Arg Arg Val
    50                  55                  60
Arg Ser Ala Ala Cys Ala Ser Ser Pro Pro Pro Gly Ser Thr Thr Ser
65                  70                  75                  80
Arg Gly Ser Thr Thr Val Ala Ser Arg Ser Arg Trp Ser Thr Pro Cys
                85                  90                  95
Ala Arg Ser Ser Arg Pro Arg Leu Ala Pro Glu Ala Thr Thr Arg Pro
            100                 105                 110
Ser Cys Ser Ala Ser Arg Ala Cys Ser Gly Met Thr Cys Ala Thr Thr
        115                 120                 125
Ser Gly Ser Ser Gly Arg Ser Pro Pro Leu
    130                 135
```

<210> 39536
<211> 338
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (89)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39536

```
Gln Ser Arg Tyr Asn Thr Ile Asp Ser Ser Gln Gln His Ser Arg Ser
1               5                  10                  15
Asn Val Ser Met Ala Val Pro Gln Ser Ile Pro Pro Pro Thr Ala Ala
            20                  25                  30
Pro Ile Glu Ser Lys Asp Gln Val Phe Ala Arg Ser Lys Ala Phe Trp
        35                  40                  45
Asp Asn Tyr Leu Arg Gly Arg Pro Gln Val Pro Pro Ser Phe Phe Gln
    50                  55                  60
Arg Ile Tyr Arg Tyr His Arg Glu His Gly Gly Arg Phe Gly Thr Val
65                  70                  75                  80
His Asp Val Gly Ala Gly Ile Gly Xaa Tyr Ala Gly Glu Ile Arg Ser
                85                  90                  95
Gln Phe Pro His Val Ile Val Ser Asp Ile Val Pro Lys Asn Val Gln
            100                 105                 110
Leu Ala Glu Ala His Leu Gly Arg Asp Gly Phe Arg Tyr Arg Ala Ala
        115                 120                 125
Pro Val Glu Val Ala Asp Asp Leu Pro Pro Gly Ser Val Asp Leu Ala
    130                 135                 140
Phe Ala Thr Asn Val Met His Phe Ala Asp Gln His Ala Ala Met Gln
145                 150                 155                 160
Ala Ile Ala Thr Gln Leu Arg Pro Gly Gly Thr Phe Ala Cys Ala Gly
                165                 170                 175
Phe Gly Pro Ala Arg Phe Asp Asp Pro Asp Ile Gln Asp Val Trp Glu
            180                 185                 190
Arg Ile Ser Gln Gln Gly Gly Arg Ile Leu Leu Gly Met Ala Glu His
        195                 200                 205
Pro Pro Asp Thr Ile Asn Val Met Ser Arg Ser Ser Lys Glu Tyr Asn
    210                 215                 220
Val Ala Pro Leu Glu Pro Gln Trp Phe Arg Pro Gly Ala Leu Arg Ile
225                 230                 235                 240
Arg Leu Asn Met Ala Gln Gly Gly Ile Thr Gly Leu Leu Pro Pro Glu
                245                 250                 255
Arg Gln Gln Glu Val Thr Asp Pro Asp Phe Ala Gly Pro Arg Asp Val
            260                 265                 270
Val Val Tyr Glu Thr Asn Glu Glu Trp Arg Phe Glu Thr Asp Trp Glu
        275                 280                 285
Gly Phe Leu Gln His Phe Arg Ser Phe Pro His Ala Gly Ala Asp Pro
    290                 295                 300
Ala Ala Phe Thr Gly Leu Leu Gln Glu Leu Lys Asp Leu Leu Asp Glu
305                 310                 315                 320
Gly Arg Cys Leu Arg Gly Cys Trp Pro Ala Thr Leu Ile Leu Ala Thr
                325                 330                 335
Arg Arg
```

<210> 39537
<211> 202
<212> PRT
<213> A.fumigatus

<400> 39537
Leu Arg Ser Phe Arg Tyr Ser Tyr Trp His Leu Ser Leu Phe Ser Ser
1 5 10 15
Thr Phe Glu Leu His Phe Tyr Gln Tyr Ala Ala Glu Cys Phe Arg Asp
20 25 30
Tyr Tyr Ala Gly Asp Cys Ser His Tyr Arg Leu Leu Ser Leu Gly Tyr
35 40 45
Val Ile Leu Cys Arg Ile His Val Glu Arg Leu Asn Ala Asp Ala Gly
50 55 60
Leu Met Met Gly Leu Ser Val Val Asp Ile Pro Val Val Leu Asp Thr
65 70 75 80
Ala Thr Gln Ala Ser Gln Leu Leu Gln His Phe Thr Arg Leu Tyr Asp
85 90 95
Ile Gly His Lys Met Met Pro Ser Leu Ala Val Thr Thr Cys Leu Leu
100 105 110
Tyr Gly Tyr Thr Ala Ser Ser Thr Arg Thr Thr Gly Gly Ser Gly Leu
115 120 125
Pro His Ile Ile Ala Ala Val Thr Thr Ile Ser Met Val Pro Phe Thr
130 135 140
Trp Leu Val Met Ala Pro Thr Asn Asn Ala Leu Phe Arg Met His Ala
145 150 155 160
Asn Pro Ala Ala Ala Asn Leu Gly Glu Val Arg Arg Leu Leu Val Arg
165 170 175
Trp Ala Gln Leu His Ala Val Arg Ser Leu Phe Pro Leu Met Gly Ser
180 185 190
Val Leu Gly Leu Arg Gln Ile Leu Arg Glu
195 200

<210> 39538
<211> 228
<212> PRT
<213> A.fumigatus

<400> 39538
Asn Met Gln Asn Leu Lys Ile Ser Leu Ala Asn Ala Gly Val Tyr His
1 5 10 15
Pro Thr Ser Leu Ala Gly Arg Leu Val Asn Val Leu Gly Glu Arg Leu
20 25 30
His Asp Ala Val Pro Gly Asn Val Ile His Ser Gly Gly Asp Leu Pro
35 40 45
Glu Glu Pro Leu Val Val Ala Gln Val Ile Pro Glu Gln Ala Leu Asp
50 55 60
Ala Glu Gln Leu Gly Arg Val Val Ala Ser Gly Ala Ser Leu Gly Leu
65 70 75 80
Glu Leu Leu Ala His Gly Val Asp His Leu Glu Arg Leu Ala Thr Val
85 90 95
Val Asp Pro Leu Asp Val Val Glu Pro Gly Gly Gly Asp Glu Ala Gln
100 105 110
Ala Ala Glu Arg Thr Arg Leu Pro Asp Arg Leu Gly Asn Arg Gly His
115 120 125
Asp Glu Leu Arg Asn Leu Ala Gly Arg Val Glu Thr Asp Thr Gly Gln

```
    130                 135                 140
Leu Val His Asn Gly Gly Val Gly Lys Ala Leu Asp Glu Gly Val Ala
145                 150                 155                 160
Ile Leu Val Asp Val Asp Ala Arg Asp Leu Arg Gln Glu Arg Leu Asp
                165                 170                 175
Leu Leu Leu His His Leu Pro His Glu Leu Ala Glu Gln Arg Val Arg
            180                 185                 190
His Asp Leu Val His Val Leu Glu Ala Arg Gln Leu Thr Gly Val Ala
        195                 200                 205
Gln Gly Arg Val Ala Ala Val Glu Gln Asp Arg Ala Pro Gly Trp Ile
    210                 215                 220
Gly Ser Ala Leu
225
```

<210> 39539
<211> 263
<212> PRT
<213> A.fumigatus

<400> 39539

```
Leu Pro Leu Ile Cys Ala Cys Tyr Leu Leu Gln Cys Arg Val Ala Glu
1               5                   10                  15
Leu Glu Thr Lys Gln Ser Ile Phe Cys Arg Tyr Ser Phe Leu Lys Leu
            20                  25                  30
Cys Lys Val Lys Tyr Tyr Asn Phe Ser Pro Val His Ser Val Gln Lys
        35                  40                  45
Asn Phe Thr Phe Gln Thr Gly Asp Pro Leu Gly Pro Asp Ser Pro Glu
    50                  55                  60
Ser Asp Gly Gly Ser Ser Ile Trp Gly Leu Leu Glu Gly Pro Val Lys
65                  70                  75                  80
Arg Thr Phe Ser Leu Lys Leu Ser Pro Lys Leu Lys His Thr Glu Arg
                85                  90                  95
Gly Thr Val Ser Met Ala Thr Val Pro Ser Ser His Asp Pro Asp Glu
            100                 105                 110
Arg Leu Ala Ala Ser Gln Phe Ile Val Thr Leu Glu Asp Asn Leu Asp
        115                 120                 125
Tyr Leu Asp Gly Lys Ala Ala Ile Phe Gly Lys Val Val Glu Gly Phe
    130                 135                 140
Asp Val Leu Glu Lys Ile Asn Gly Ala Phe Ile Asp Asp Gln Gly Arg
145                 150                 155                 160
Pro Leu Lys Asp Ile Arg Ile Arg His Thr Val Ile Leu Asp Asp Pro
                165                 170                 175
Tyr Asp Asp Pro Pro Gly Leu Val Val Pro Ala Glu Ser Pro Leu Pro
            180                 185                 190
Ser Lys Ala Gln Leu Ala Thr Val Arg Ile Ala Asp Asp Glu Glu Leu
        195                 200                 205
Asp Asp Asn Met Asp Glu Glu Ala Met Glu Lys Leu Arg Arg Glu Arg
    210                 215                 220
Glu Ala Arg Ala Gln Ala Leu Thr Leu Glu Met Val Gly Asp Leu Pro
225                 230                 235                 240
Phe Ala Glu Val Lys Pro Pro Glu Asn Val Leu Phe Val Cys Lys Leu
                245                 250                 255
Asn Pro Val Thr Gln Gly Ile
            260
```

<210> 39540

<211> 187
<212> PRT
<213> A.fumigatus

<400> 39540
Arg Val Arg Glu Val Glu Ala Cys Thr His Arg Phe Ala Trp Arg Ser
1 5 10 15
Arg Thr Val Gln Ser Ser Glu Glu Ala Arg Leu Gln Thr Cys Gly Leu
20 25 30
Glu Arg Arg Ile Pro Ala Ser Gly Gly Met Ala Arg Trp Pro Thr Arg
35 40 45
His Arg Leu Cys Ile Cys Gln Ser Cys Gly Phe Ser Arg Pro Ser Cys
50 55 60
Gln Leu Ser Leu Ser Gln Arg Leu Thr Tyr Phe Phe Phe Ser Phe Gln
65 70 75 80
Leu Glu Ile Asp Glu Ala Ser Gln Thr Leu Thr Gly Lys Leu Val Pro
85 90 95
Thr His Pro Ile Ile Asp Ala Ser Lys Lys Arg Glu Leu Leu Lys Ser
100 105 110
Leu Ala Ala Asp Asn Gly Ile Pro Ile Ser Gln Val Val Ser Val Gly
115 120 125
Asp Gly Ala Asn Asp Leu Leu Met Leu His Ala Ala Gly Leu Gly Val
130 135 140
Ala Trp Arg Ala Lys Ser Lys Val Gln Leu Glu Ala Pro Thr Arg Leu
145 150 155 160
Asn Gly Glu Ser Met Leu Asp Ile Leu Tyr Leu Phe Gly Met Thr Lys
165 170 175
Glu Asp Ile Lys Glu Leu Val Ser Asp Asp Ala
180 185

<210> 39541
<211> 218
<212> PRT
<213> A.fumigatus

<400> 39541
Tyr Asp Asp Phe Cys His Ile Ile Gly Pro Arg Asp Gly Tyr Cys Met
1 5 10 15
Ile Ile Pro Glu Ala Lys Pro Thr Lys Asn Gln Gln Ala Pro Ile Asn
20 25 30
Tyr Pro Lys Asp Val Lys Asp Arg Asn Arg Glu Ser Pro Lys Asp Asn
35 40 45
Ser Pro Arg His Leu Val Asp Gly Asn Trp Pro Asn Ala Asp Cys Phe
50 55 60
Arg Ala Ser Arg Ser Ser Ser Ser Leu Leu Gln Asn Ile Leu Asn Glu
65 70 75 80
Arg Leu Ala Gly Leu Val Thr Ala Pro Asn Glu Arg Ala Arg Arg Ala
85 90 95
Val Glu Glu Ala His Val Lys Arg Pro Leu Ala Pro Gln Leu Glu Ser
100 105 110
Ile Arg Ser Asp Val Leu Val His Ser His Met Ala Leu Arg Arg Pro
115 120 125
His Ile Leu Ser Glu Cys Asp Asn Val His Val Ser Arg Ala Gln Leu
130 135 140
Ala Gln Arg Ile Pro Gln Leu Val Ile Arg Leu Pro Glu Ala Lys His
145 150 155 160

Gln Arg Gly Leu Gly Asp Lys Arg Gly Leu Gly Val Leu Arg Cys Leu
165 170 175
Glu His Pro Asp Arg Leu Leu Lys Val Gly Thr Ala Ile Thr Asp Leu
180 185 190
Arg Arg Gln Gly Phe His Cys Leu Asn Val Val Cys Val Asp Ile Gln
195 200 205
Ala Gly Ala Ser Asp Gln Leu His His Leu
210 215

<210> 39542
<211> 102
<212> PRT
<213> A.fumigatus

<400> 39542
Leu Leu Gly Gly Gln Glu Ile Thr Glu Arg Ala Met Asn Gly Glu Leu
1 5 10 15
Asp Phe Ser Ala Ser Leu Lys Glu Arg Val Gly Leu Leu Lys Gly Val
20 25 30
Pro Ala Asp Val Phe Glu Lys Leu Lys Pro Val Leu Thr Val Ser Pro
35 40 45
Gly Ala Arg Glu Leu Cys Lys Ala Leu Lys Lys Leu Gly Cys Lys Leu
50 55 60
Ala Val Leu Ser Gly Gly Phe Gln Pro Leu Ala Glu Trp Leu Ala Gly
65 70 75 80
Gln Leu Gly Ile Asp Tyr Ala Phe Ala Asn His Val Gly Ser Pro Val
85 90 95
Pro His Ala Asn Phe Pro
100

<210> 39543
<211> 77
<212> PRT
<213> A.fumigatus

<400> 39543
Leu Ser Leu Cys Asp Ser Asn Ser Ala Lys Leu Cys Gly Leu Val Gly
1 5 10 15
Ile Tyr Pro Pro Arg Pro Gln Gln Leu Ile Leu Ser Phe Asp Ile Val
20 25 30
Pro Leu Gly Ser Ser Pro Arg Glu Ala Lys Leu Asn Ala Ser Asn Ala
35 40 45
Ile His Ser Asn Ile Ala Val Pro Tyr Gln Arg Pro Arg Ala Gly Thr
50 55 60
Lys Lys His Arg Ala Ser His Arg Leu Gly Ser Ser Arg
65 70 75

<210> 39544
<211> 435
<212> PRT
<213> A.fumigatus

<400> 39544
Tyr His Arg Trp Ser Leu Cys Gln Ser Ser Tyr Arg Pro His Asn His
1 5 10 15
Ser Arg Thr Ser Ile Met Ala Val Ser Thr Ser His Phe Arg Ser Leu

```
            20                  25                  30
Cys Ala Ser Arg Pro Leu Ser Arg Thr Ala Ile Val Gly His Ile Ser
        35                  40                  45
Cys Arg Ser Tyr Ala Thr Thr Glu Pro Ser Pro Ser Ala Thr Ser Thr
    50                  55                  60
Ser Thr Thr Thr Thr Ala Arg Arg Arg Thr Thr Phe Lys Asp Lys Leu
65                  70                  75                  80
Asn Ala Gly Pro Ser Phe Ala Asp Phe Val Gly Asn Gly Asn Thr Pro
                85                  90                  95
Leu Asp Pro Ser Glu Ala Tyr Ala Leu Lys Thr Ala Leu Val Gly Pro
            100                 105                 110
Ala Gly Arg Lys Lys Glu Met Thr Arg Leu Pro Ser Trp Leu Lys Thr
        115                 120                 125
Pro Ile Pro Asp Ser Lys Asn Tyr Gln Arg Leu Lys Lys Asp Leu Arg
    130                 135                 140
Gly Leu Asn Leu His Thr Val Cys Glu Glu Ala Arg Cys Pro Asn Ile
145                 150                 155                 160
Ser Asp Cys Trp Gly Gly Ser Asp Lys Ser Ala Ala Thr Ala Thr Ile
                165                 170                 175
Met Leu Met Gly Asp Thr Cys Thr Arg Gly Cys Arg Phe Cys Ser Val
            180                 185                 190
Lys Thr Ser Arg Thr Pro Ala Pro Leu Asp Pro His Glu Pro Glu Asn
        195                 200                 205
Thr Ala Glu Ala Ile Ser Arg Trp Gly Leu Gly Tyr Val Val Leu Thr
    210                 215                 220
Ser Val Asp Arg Asp Asp Leu Ala Asp Gly Gly Ala Arg His Phe Ala
225                 230                 235                 240
Glu Thr Val Met Lys Ile Lys Gln Lys Ala Pro Ser Ile Leu Val Glu
                245                 250                 255
Cys Leu Thr Gly Asp Tyr Ala Gly Asp Leu Glu Met Val Lys Leu Val
            260                 265                 270
Ala Arg Ser Gly Leu Asp Val Tyr Ala His Asn Val Glu Thr Val Glu
        275                 280                 285
Ala Leu Thr Pro Gln Val Arg Asp Arg Arg Ala Asn Phe Gln Gln Ser
    290                 295                 300
Ile Arg Val Leu Glu Ala Ala Lys Asn Ala Gln Pro Ser Leu Ile Thr
305                 310                 315                 320
Lys Thr Ser Leu Met Leu Gly Leu Gly Glu Thr Asp Asp Gln Leu Trp
                325                 330                 335
Asp Ala Leu Arg Gln Leu Arg Ala Ala Asn Val Asp Val Val Thr Phe
            340                 345                 350
Gly Gln Tyr Met Arg Pro Thr Lys Arg His Met Ala Val His Glu Tyr
        355                 360                 365
Val Thr Pro Asp Arg Phe Glu Leu Trp Arg Gln Arg Ala Leu Asp Met
    370                 375                 380
Gly Phe Leu Tyr Cys Ala Ser Gly Pro Leu Val Arg Ser Ser Tyr Lys
385                 390                 395                 400
Ala Gly Glu Ala Phe Ile Glu Asn Val Leu Lys Lys Arg Arg Ala Thr
                405                 410                 415
Ser Gly Gly Thr Glu Thr Val Gly Val Arg Pro Val Thr Val Asp Glu
            420                 425                 430
Val Thr Arg
        435

<210> 39545
<211> 570
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<212> PRT
<213> A.fumigatus

<400> 39545

```
Arg Ser Pro Ser Leu Asp Asn Ile Thr Ala Ala Ala Arg Glu Ser Lys
1               5                  10                  15
Ala Ala Arg Pro Met Ser Gly Asn Arg Thr Leu Arg Thr Trp Arg Ser
            20                  25                  30
Asp Leu Asn Leu Ala Ser Ser Leu Glu Thr Phe Gly Leu Leu Pro Ser
        35                  40                  45
Pro Pro Leu Ser Asp Ser Arg Asp Ser Arg Pro Ser Thr Ser Ser Thr
    50                  55                  60
Tyr Phe Ser Pro Lys Pro Asp Ser Glu Met Glu Ala Gly Glu Arg Arg
65                  70                  75                  80
Met Lys His Cys Gly Cys Ile Pro Asp Phe Asn Ser Cys Asp Ala Cys
                85                  90                  95
Asp Gly Ala Arg Gly Lys Val Thr Lys Ala Glu Glu Arg Ala Thr Gln
            100                 105                 110
Glu Pro Thr Asn Val His Ala Ala Tyr Ser Asn Leu Val Lys Arg Cys
        115                 120                 125
Glu Ser Asp Glu Gly Arg Phe Thr Pro Asp Ser Thr Asp Ser Glu Arg
    130                 135                 140
Thr Leu Ser Pro Ser Gln Phe Ser Asp Asn Glu Pro Pro Glu Leu Gly
145                 150                 155                 160
Lys Ala Phe Ser Cys Val Ala Thr Ala Gln Arg Ser Arg Thr Gly Thr
                165                 170                 175
Val Ser Ser Val Gly Ser Ser Trp Met Pro Ser Asn Ile Ser Tyr Phe
            180                 185                 190
Glu Arg Trp Leu Gln Gly Val Pro Ala Thr Leu Asp Val Lys Asp Glu
        195                 200                 205
Arg Ser Lys Glu Leu Asn Arg Arg Lys Cys Gln Ile Val Gln Asn Ser
    210                 215                 220
Pro Pro His Leu Glu Arg Arg Gly Glu Leu Glu Ala Thr Asp Glu Ala
225                 230                 235                 240
Val Val Ser Leu His Leu Arg Val Thr Arg Ser Leu Thr Leu Leu Ile
                245                 250                 255
Gln Lys Gln Ile Leu Asp Leu Thr Gly Cys Ser Ile Thr Lys Pro Lys
            260                 265                 270
Leu Val Asp Ile Ser Arg Gln Ser Ser Pro Ala Met Ser His Thr Leu
        275                 280                 285
Pro Asn Thr Thr Gln His Pro Val Pro Ser Thr Pro Asp Met Arg Gln
    290                 295                 300
His Glu Ile Ser Ala Phe Ser Pro Asp Thr Pro Leu Glu Met Ser Asp
305                 310                 315                 320
Ser Gly Tyr Val Thr His Asn Ser Cys Tyr Ser Pro Asp Glu Phe Gln
                325                 330                 335
Asp Asp Lys Glu Ser His Tyr Thr Asp Ser Ile Ser Thr His Ser Glu
            340                 345                 350
Thr Ala Ser Glu Thr Ile Val Cys Glu Lys Leu Val Leu Lys Glu Gly
        355                 360                 365
Pro Ser Phe Ser Pro Pro Lys Pro Lys Pro Glu Thr Arg Ala Asp Ser
    370                 375                 380
Pro Pro Lys Asn Gln Thr Ser Pro Ala Arg Ser Ser Ser Met Leu Glu
385                 390                 395                 400
Lys Glu Glu Arg Arg Trp Trp Asp His Glu Trp Thr Ile Glu Gln Leu
                405                 410                 415
```

```
Glu Gln Ser Val Lys Asp Phe Pro Gln Asn Met Leu Lys Leu Thr Ser
            420                 425                 430
Pro Val Ile Met Phe Leu Arg Gln Asn Asn Glu Lys Ala Leu Ile Arg
        435                 440                 445
Pro Phe Arg Lys Ile Phe Pro Asp Val Ala Glu Asn Leu Leu Asp Cys
    450                 455                 460
Leu Cys Ala Ile Leu Ile Ala Arg Asn Tyr Val Ala Ser Leu Ala Ser
465                 470                 475                 480
Thr Pro Arg Gly Pro Ser Ser Leu Ser Tyr His Ser Thr Leu Ser Arg
                485                 490                 495
Leu Gly Pro Val Gln Glu Lys Pro Asn Ser Thr Pro Ala Thr Gln Phe
            500                 505                 510
Thr Pro Thr Ser Pro Ser Arg Ile Arg Asp Arg Val Leu Gly Pro Arg
        515                 520                 525
Ser Ile Glu Leu Arg Thr Asp Leu Asp Arg Val Val Asp Asn Leu Leu
    530                 535                 540
Phe Ala Val Ser Gly Arg Ser Asp Glu Thr Leu Lys Ser Ala Val Leu
545                 550                 555                 560
Val Leu Ala Gln Val Leu Glu Cys Lys Ala
                565                 570

<210> 39546
<211> 505
<212> PRT
<213> A.fumigatus

<400> 39546
Thr Asp Glu Gly Ser Ser Met Thr Ala Glu Leu Ala Phe Trp Ser Ser
1               5                   10                  15
Phe Met Asp Glu Pro Asp Ala Asn Asp Leu Ser Arg Ala Val Ser Arg
            20                  25                  30
Val Phe Asn Glu Phe Val Arg Ser Pro Glu Ala Val Leu His Asp Leu
        35                  40                  45
Ser Pro Ile Gly Pro Leu Asn Val Glu Gln Ile Val Arg Leu Met Pro
    50                  55                  60
Ser Ala Ile Ser Gly Glu Gln Gln Cys Leu His Trp Leu Ile Glu Gln
65                  70                  75                  80
Trp Val Cys Arg Thr Pro Asp Ala Pro Ala Val Cys Ser Thr Glu Leu
                85                  90                  95
Glu Trp Ser Tyr Ala Lys Leu His Gln Leu Thr Thr Ser Leu Ser His
            100                 105                 110
His Leu Cys Gln Leu Gly Val Gly Arg Asn Asp Arg Ala Ala Ile Cys
        115                 120                 125
Met Glu Lys Ser Pro Trp Val Ile Val Ala Met Leu Ala Val Leu Gln
    130                 135                 140
Ala Gly Ala Ala Phe Val Pro Leu Asp Pro Ser His Pro Arg Thr Arg
145                 150                 155                 160
Arg Glu Ser Met Ile Ser Ser Leu Asp Ala Gln Val Leu Leu Ile Ser
                165                 170                 175
Leu Asp Ala Asp Glu Asp Ala His Leu Thr Met Ser Ser Cys Arg Gln
            180                 185                 190
Val Arg Val Gly Ser Thr Arg Gly Ala Gly Ser Asp Thr Gly Val Ser
        195                 200                 205
Ser Asn Leu Pro Lys Asn Glu Pro Asp Asp Ala Ala Tyr Ile Leu Phe
    210                 215                 220
Thr Ser Gly Ser Thr Gly Gln Pro Lys Gly Val Val Val Pro His Arg
```

```
225                 230                 235                 240
Ala Val Cys Ser Ser Ile Lys Ala Trp Ser Asp Met Leu Asn Ile Arg
                245                 250                 255
Ser Thr Thr Arg Ser Leu Gln Phe Ala Ala Tyr Thr Phe Asp Ala Ala
            260                 265                 270
Ile Gly Glu Ile Phe Ala Val Leu Ala Asn Gly Gly Cys Val Cys Val
        275                 280                 285
Pro Ser Glu Ser Glu Arg Leu Asn Phe Leu His Glu Thr Ile Thr Gln
    290                 295                 300
Leu Asp Val Asn Trp Ser Phe Leu Thr Pro Ser Val Ile Arg Gln Ile
305                 310                 315                 320
Asp Pro Ser Ser Val Pro Thr Leu Gln Thr Leu Ala Leu Gly Gly Glu
                325                 330                 335
Pro Leu Ser Lys Glu Val Ile Glu Thr Trp Cys Asp Arg Val His Leu
            340                 345                 350
Ile Asn Val Tyr Gly Pro Thr Glu Thr Cys Val Phe Ser His Ala Asn
        355                 360                 365
Pro Ile Thr Asp Ser Lys Gln Glu Pro Ser Leu Ile Gly Pro Pro Ile
    370                 375                 380
Leu Gly Arg Ser Trp Val Val Ser Pro Phe Asn Ile Asp Ile Leu Val
385                 390                 395                 400
Pro Arg Gly Cys Ile Gly Glu Leu Val Ile Glu Ser Pro Ala Val Ala
                405                 410                 415
Ala Gly Tyr Phe Asn Asn Pro Glu Gln Thr Ala Lys Ala Phe Ile Ala
            420                 425                 430
Pro Pro Arg Trp Trp Lys Leu Ala Gln Asp Ala Leu Ser Gly Ser Asn
        435                 440                 445
Lys Leu Thr Glu Asp Glu Leu Pro Arg Phe Tyr Leu Thr Gly Asp Met
    450                 455                 460
Val Arg Gln Asn Val Asp Gly Ser Ile Thr Tyr Leu Gly Arg Arg Asp
465                 470                 475                 480
Thr Gln Thr Lys Ile Asn Gly Gln Arg Val Glu Leu Gly Glu Ile Glu
                485                 490                 495
Tyr His Ile Leu Arg Leu Pro Ala Val
            500                 505

<210> 39547
<211> 1232
<212> PRT
<213> A.fumigatus

<400> 39547
Asp Gln Lys Thr Val Arg Ala Arg Gly Glu Ala Val Leu Pro Glu Asp
1               5                   10                  15
Phe Arg Leu Glu Val Val Glu Pro Gln Ile Ala Ala Arg Tyr Thr Ser
            20                  25                  30
Asp Leu Ile Val His Leu Glu Arg Asn Leu Pro Ala Tyr Met Val Pro
        35                  40                  45
Ala Phe Leu Val Val Val Arg Gln Leu Pro Leu Gln Pro Ser Gly Lys
    50                  55                  60
Ile Asn Arg Arg Met Ile Leu Ser Trp Leu Ser Glu Pro Thr Met Ala
65                  70                  75                  80
Gly Leu Gln Lys Thr Gln His Asn Phe Thr Arg Arg Glu Glu Glu Pro
                85                  90                  95
Thr Thr Leu Gly Pro Val Glu Lys Gln Met Arg Glu Ile Trp Ser Glu
            100                 105                 110
```

```
Val Leu Asn Leu Pro Val Thr Arg Ile Arg Leu Asp Gln Ser Phe Phe
        115                 120                 125
Asp Leu Gly Gly Gly Ser Ile Thr Ala Met Gln Val Val Ser Arg Cys
    130                 135                 140
Arg Arg Ser Gly Leu Gln Leu Thr Val Gln Asp Leu Leu Arg Trp Lys
145                 150                 155                 160
Thr Ile Thr Lys Val Thr Pro Arg Thr Ile Ser Leu Ser Gln Val Thr
                165                 170                 175
Gly Glu Arg Val Tyr Ser Leu Thr Ser Ala Gly Ser Val Val Asp Met
            180                 185                 190
Arg Ser Ile Ala Ser Lys Leu Glu Ala Ile Gly Leu Pro Gly Arg Ala
        195                 200                 205
Gly Val Lys Gly Val Tyr Ala Cys Ser Pro Met Gln Glu Gly Ile Leu
    210                 215                 220
Leu Ala Ala Leu Lys Ser Pro Gly Lys Tyr Glu Val Val Leu Met Leu
225                 230                 235                 240
Glu Ile Arg Ala Thr Gly Ser Gln Asp Arg Val Asp Leu Glu Leu Leu
                245                 250                 255
Glu Ser Ala Trp Leu Gln Val Val Asp Arg His Asp Met Leu Arg Thr
            260                 265                 270
Val Phe Leu Gln Glu Lys Thr Ala Thr Gly Val Phe Ser Gln Val Val
        275                 280                 285
Tyr Lys His Ile Asp Pro Pro Ile Glu Ile Thr Thr Val Asp Asp Leu
    290                 295                 300
Asp Thr Leu Arg Ser Ala Ser Phe Ser Ala Cys His Phe Asp Cys Ile
305                 310                 315                 320
Pro Tyr Arg Val Thr Leu Cys Lys Leu Ser Gly Ser Ser Leu Ala Tyr
                325                 330                 335
Val Arg Leu Asp Ile Ser His Ala Val Val Asp Gly Trp Ser Leu Ser
            340                 345                 350
Ile Leu Ser Arg Asp Leu Gln Gln Ala Tyr Asp Gly Gln Leu Pro Ser
        355                 360                 365
Gln Pro Val Ala Gln Tyr Cys Glu Leu Ile Gln Tyr Leu Glu Ser Gln
    370                 375                 380
Pro Gln Glu Thr Ser Met Glu Phe Trp Arg His Leu Leu Thr Gly Met
385                 390                 395                 400
Val Pro Cys His Leu Pro His Met Ile Ser Tyr Ser Gly Ser His Ser
                405                 410                 415
Thr Gln Glu Val Lys Leu His Gln Thr Arg Leu Glu Val Asp Arg Asn
            420                 425                 430
Gln Glu Leu Arg Asp Phe Cys Ala Ala His Asp Ile Thr Ile Ala Asn
        435                 440                 445
Val Phe Gln Leu Ala Trp Ala Val Val Leu Tyr Arg Tyr Thr Gly Met
    450                 455                 460
Glu Asp Val Cys Phe Gly Tyr Leu Ile Ser Gly Arg Asp Ala Pro Ile
465                 470                 475                 480
Asp Asn Leu Glu Asp Ala Val Gly Pro Phe Ile Asn Ile Leu Val Ala
                485                 490                 495
Arg Ala Thr Leu Arg Gln Gly Ile Ser Val Lys Glu Phe Leu Gly Glu
            500                 505                 510
Ile Arg Asp Thr Phe Leu Ala Met Ser Ala His Gln His Thr Ser Leu
        515                 520                 525
Thr Gln Ile Gln His Glu Leu Ala Val Gly Asn Leu Gly Leu Phe Asn
    530                 535                 540
Thr Ala Leu Asn Val Gln His Arg Ala Leu Thr Gln Gln Asn Pro His
545                 550                 555                 560
```

```
Ser Asp Ile Glu Ile Cys Glu Leu Ser Gly Arg Asp Pro Ser Glu Phe
                565                 570                 575
Gly Ala Ile Leu Asn Val Ile Asp Ala Gly Asn Thr Leu Glu Phe Ala
            580                 585                 590
Leu Ser Tyr Trp Ser Asp Leu Leu Ser Glu Glu Thr Gly Arg Glu Ile
        595                 600                 605
Cys Ser Phe Leu Ser Cys Ile Leu Ser Ala Val Leu Asp Asn Ser Gly
    610                 615                 620
Cys Ser Val Lys Thr Val Ser Gln Thr Ala Ala Asp Ala Ala Arg Ser
625                 630                 635                 640
Phe Ile Asp Arg Lys Gly Asp Asp Asp Ile Ser Ser Thr Pro Arg Gly
                645                 650                 655
Asn Pro Ala Pro Glu Cys Tyr Arg Pro Leu Lys Glu Pro Thr Asn Leu
            660                 665                 670
Ile Ala Leu Thr Val Gln Gln Val Cys Ala Glu Val Leu Asp Leu Ser
        675                 680                 685
Val Ser Ser Leu Ser Leu Asp Glu Thr Phe Leu Ser Leu Gly Gly Asp
    690                 695                 700
Ser Leu Leu Ala Met Lys Val Val Ser Arg Cys Arg Glu His Gly Val
705                 710                 715                 720
Ala Leu Thr Val Gln His Met Leu Gln Asn Gln Thr Ile Arg Glu Val
                725                 730                 735
Phe Glu His Ala Arg Phe Ser Asp Ser Phe Ser Tyr Arg Gln Leu Arg
            740                 745                 750
His Thr Pro Asp Pro Thr Gly Ile Pro Phe Pro Leu Ser Pro Ile Gln
        755                 760                 765
Lys Leu His Phe His Leu Met Pro Thr Gly Gln Asn Tyr Tyr Asn Gln
    770                 775                 780
Ser Phe Phe Leu Arg Val Thr Glu Arg Leu Glu Ala Ser Ala Ile Glu
785                 790                 795                 800
Arg Ala Val Arg Leu Leu Val Leu Arg His Ser Val Leu Arg Ala Arg
                805                 810                 815
Phe Asn Gln Gln Ile Asp Gly Ala Trp Ala Gln Val Ile Ser Pro Asp
            820                 825                 830
Ile Glu Gly Ser Tyr His Phe Ser Ala Thr Ser Leu Ile Ser Trp Asp
        835                 840                 845
Gly Leu Trp Pro Leu Val Glu Gly Ala Gln Lys Arg Leu Asn Ile Arg
    850                 855                 860
Gln Gly Pro Leu Leu Ser Val Asp Val Leu Asn Leu Gln Gly Gly Asp
865                 870                 875                 880
Gln His Ile Tyr Leu Val Gly His His Leu Val Val Asp Leu Val Ser
                885                 890                 895
Trp Arg Ile Ile Leu Ala Asp Leu Glu Ile Ile Leu Arg Gly Gly Glu
            900                 905                 910
Leu Ser His Asp Pro Pro Leu Ser Phe Gln Thr Trp Ile Arg Leu Ala
        915                 920                 925
Thr Glu Tyr Ala Gln Asp Asn Ile Asp Pro Ala Thr Thr Leu Pro Phe
    930                 935                 940
Gln Leu Arg Pro Gly Asn Phe Ala Tyr Trp Gly Met Ala Gly Ile Pro
945                 950                 955                 960
Asn Leu Ala Lys Asp Val Ser Ser Leu Ser Ile Thr Leu Pro Thr Asp
                965                 970                 975
Ile Thr Ser Ser Leu Leu Gly Pro Ala Asn Ala Ser Leu Gly Thr Glu
            980                 985                 990
Pro Thr Asp Leu Met Ile Ala Ala Leu Ala His Thr Phe Ser Leu Val
        995                 1000                1005
```

```
Phe His Asp His Ser Gly Leu Thr Ile Phe Gln Glu Ser His Gly Arg
    1010                1015                1020
Glu Pro Trp Thr Pro Glu Ile Asp Leu Ser Ala Thr Cys Gly Trp Phe
1025                1030                1035                1040
Thr Val Leu Thr Pro Leu Ser Val Glu Thr Asp Lys Val Glu Phe Arg
                1045                1050                1055
Asn Thr Leu Lys Arg Val Lys Asp Leu Arg Arg Arg Ile Pro Gly Lys
            1060                1065                1070
Gly Trp Pro Tyr Phe Ala Ser Arg Phe Ala Ser Arg Arg Arg Thr Gly
        1075                1080                1085
Gln Lys Leu Asp Glu Lys Asp Glu Ile Glu Val Leu Phe Asn Phe Val
    1090                1095                1100
Gly Leu Tyr Gln Gln Phe Asn Arg Asn Asp Ser Leu Phe Val Arg Pro
1105                1110                1115                1120
Val Ala Asp Val Ser Leu Pro Pro Asp Phe Ser Pro Asp Ser Ile Arg
                1125                1130                1135
Leu Ala Leu Ile Glu Ile Asn Ser Leu Val Asp Gly Gln Gly Arg Met
            1140                1145                1150
Val Met His Val Thr Tyr Asn Ser Arg Met Lys Arg Gln Glu Gly Leu
        1155                1160                1165
Thr Ala Trp Leu Glu Arg Ser Gln Gln Val Leu Glu Glu Glu Met Pro
    1170                1175                1180
Lys Leu Leu Thr Ala Ala Pro Glu Arg Thr Pro Ser Asp Phe Gln Leu
1185                1190                1195                1200
Leu Ser Leu Ser Tyr Asn Glu Leu Ser Ala Leu Glu Ser His Cys His
                1205                1210                1215
Lys Gln Phe Val Phe Thr Thr Gly Leu Glu Gly Thr Ala His Trp Gly
            1220                1225                1230
```

<210> 39548
<211> 376
<212> PRT
<213> A.fumigatus

```
<400> 39548
Arg Lys Ser Lys Gln Arg Lys Ser His Thr Met Leu Pro Asp Ala Asp
1               5                   10                  15
Ser Lys Asp Gln Leu Val Thr Ile Ile Gln Ser Val Lys Pro Pro Thr
            20                  25                  30
Val Pro Pro His Arg Ser His Asp Pro Ala Asn Asn Leu Lys Arg Thr
        35                  40                  45
Asp Pro Tyr Gln Phe Gly Ser Arg Tyr Leu Glu Glu Gly Asp Asp Val
    50                  55                  60
Phe Glu Phe Asn Ala Trp Asp His Val Glu Pro Asp Asp Glu Phe Lys
65                  70                  75                  80
Ala Phe Ala Glu Val Gln Tyr Ala Lys Gln Arg Glu Ser Pro Val Ser
                85                  90                  95
Asp Phe Asp Lys Gln Arg Phe Asn Lys Asp Pro Ala Lys Trp Trp Asn
            100                 105                 110
Leu Phe Tyr Lys Asn Asn Thr Ser Asn Phe Phe Lys Asp Arg Lys Trp
        115                 120                 125
Leu Arg Gln Glu Phe Pro Val Leu Ala Glu Val Thr Gln Lys Gly Ala
    130                 135                 140
Gly Arg Lys Val Val Leu Glu Val Gly Ala Gly Ala Gly Asn Thr Ala
145                 150                 155                 160
Phe Pro Leu Ile Thr His Asn Lys Asn Glu Glu Leu Met Val His Ala
```

```
                165                 170                 175
Cys Asp Phe Ser Lys Thr Ala Val Gln Val Met Arg Glu Ser Glu His
            180                 185                 190
Tyr Asn Pro Lys Phe Ile Ser Ala Asp Val Trp Asp Val Thr Ala Val
        195                 200                 205
Pro Asp Glu Glu Asn Asn Gly Leu Pro Pro Gly Leu Thr Glu Gly Ser
    210                 215                 220
Val Asp Val Val Ile Leu Ile Phe Ile Phe Ser Ala Leu Ala Pro Ser
225                 230                 235                 240
Gln Trp Asp Gln Ala Ile Arg Asn Val Tyr Arg Val Leu Lys Pro Gly
                245                 250                 255
Gly Leu Val Leu Phe Arg Asp Tyr Gly Arg Gly Asp Leu Ala Gln Val
            260                 265                 270
Arg Phe Lys Lys Gly Arg Tyr Met Asp Glu Asn Phe Tyr Val Arg Gly
        275                 280                 285
Asp Gly Thr Arg Val Tyr Phe Phe Glu Lys Glu Gln Leu Glu Lys Met
    290                 295                 300
Trp Gly Thr Trp Thr Pro Glu Lys Gly Leu Gln Met Ala Glu Asp Asn
305                 310                 315                 320
Ser Ile Met Ala Glu Ser Glu Gly Ala Phe Asp Val Glu Lys Ile Gly
                325                 330                 335
Val Asp Arg Arg Leu Ile Val Asn Arg Gln Arg Lys Leu Lys Met Tyr
            340                 345                 350
Arg Cys Trp Ile Gln Ala His Tyr Arg Lys Arg Glu Thr Pro Ala Ala
        355                 360                 365
Val Glu Ala Glu Lys Ala Asp Ser
    370                 375
```

<210> 39549
<211> 94
<212> PRT
<213> A.fumigatus

<400> 39549

```
Arg Lys Glu Pro Ala Arg Leu Cys Gln Arg Gly Arg Arg Arg Ala His
1               5                   10                  15
Leu Gly Arg Leu Leu Gly Asp Phe Leu Pro Lys Gln Leu Arg Gln His
            20                  25                  30
Leu Asp Gly His Lys Gly Asp Ala Pro Ala Ala Val Phe Ala Ala His
        35                  40                  45
Val Ser Cys Pro Val Glu Val His Val Tyr Phe Leu Leu Glu Ser Pro
    50                  55                  60
Ala Ala Pro Ser Ala Ala Ala Tyr Gly Ala Tyr Cys Ala Ala Ser Ala
65                  70                  75                  80
Gly Val Ala Ala Gly Val Phe Ala Ala Gly Ser Cys Gly Pro
                85                  90
```

<210> 39550
<211> 436
<212> PRT
<213> A.fumigatus

<400> 39550

```
Arg Asn Trp Glu Arg Arg Met His Trp Ile Glu Gln Tyr Arg Lys Ser
1               5                   10                  15
His Met Val His Ile Asp Ser Ser Leu Arg Arg Ala Tyr Ala Thr Leu
```

```
            20                  25                  30
Glu Ala Val Arg Asp Ser Cys Ser Tyr Ala Ser Gly Glu Leu Met Gly
        35                  40                  45
Gly Gly Lys Lys Arg Ala Lys Ile Leu Val Glu Thr Leu Glu Asp Arg
    50                  55                  60
Tyr Asn Asp Ala Leu Ala Thr Lys Glu Thr Leu Glu Gln Lys Ala Gln
65                  70                  75                  80
Ala Gly Val Arg Leu Met Glu Ser Phe Leu Val Glu Leu Glu Ser Arg
                85                  90                  95
Ala His Ala Val Arg Asp Arg Gly Ile Tyr Gly Ala Leu Asp Asp Gly
            100                 105                 110
Trp Lys Ala Val Asp Ser Lys Leu Val His Ala Arg Glu Val Val Asp
        115                 120                 125
Glu Gly Ile Glu Gln Ala Arg Arg Ala Lys Asp Ser Leu Arg Glu Ser
    130                 135                 140
Ile Asn Arg Ala Ile Leu Leu Ala Gln Glu Gln Arg Leu Ile Thr Tyr
145                 150                 155                 160
Ala Asp Leu Pro His Pro Trp Arg Ile Asn Pro His Ile Leu Gln Gly
                165                 170                 175
Tyr Arg Phe Ser Ser Ser Lys Val Glu Cys Leu Met Ser Val Phe Ser
            180                 185                 190
Val Cys Asn Glu Thr Val Asn Ile Trp Ser His Leu Ile Gly Leu Phe
        195                 200                 205
Ile Val Leu Ser Val Ala Phe Tyr Phe Tyr Pro Leu Asn Pro Asn Phe
    210                 215                 220
His Leu Ser Thr Lys Thr Asp Val Ala Ile Ala Ala Val Phe Phe Phe
225                 230                 235                 240
Ala Ala Cys Lys Cys Leu Val Cys Ser Thr Leu Trp His Thr Met Asn
                245                 250                 255
Ser Ile Ala Asn Gln Pro Leu Met Glu Arg Phe Ala Cys Val Asp Tyr
            260                 265                 270
Thr Gly Ile Ser Leu Leu Val Ala Ala Ser Ile Val Thr Thr Glu Tyr
        275                 280                 285
Thr Ala Phe Tyr Cys Glu Pro Val Ser Arg Trp Thr Tyr Ile Leu Leu
    290                 295                 300
Thr Met Ser Leu Gly Ile Gly Gly Val Ile Leu Pro Trp His Pro Thr
305                 310                 315                 320
Phe Asn Arg Asn Asp Leu Ala Trp Ala Arg Val Ala Phe Tyr Val Thr
                325                 330                 335
Leu Ala Leu Thr Gly Phe Ala Pro Leu Phe Gln Leu Thr Tyr Thr Arg
            340                 345                 350
Gly Phe Val Trp Cys Leu Tyr Phe Tyr Ala Pro Val Val Lys Ser Ile
        355                 360                 365
Leu Val Tyr Phe Ala Gly Ala Cys Ile Tyr Ala Ser Gln Ile Pro Glu
    370                 375                 380
Arg Trp Arg Pro Gly Leu Phe Asp Tyr Phe Gly Gly Ser His Asn Ile
385                 390                 395                 400
Trp His Ile Ala Val Leu Gly Gly Ile Leu Phe His Tyr Cys Ala Met
                405                 410                 415
Gln Asp Leu Phe Ala Asn Ala Phe Val Arg Ala Lys Gly Glu Cys Pro
            420                 425                 430
Ser Leu Thr Ala
        435

<210> 39551
<211> 235
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<212> PRT
<213> A.fumigatus

<400> 39551
Tyr Cys Ser Ile Ser Ser Gly Ala Ser Ile Ser Pro Arg Arg Thr Lys
1 5 10 15
Ser Ser Val Met Ser Phe Leu Ser Gly Leu Cys Gly Cys Phe Ala Pro
20 25 30
Lys Ser Pro Pro Arg Ala Pro Ser Ala Arg Ala Leu Ser Arg Ala Met
35 40 45
Ala Glu Thr His Gln His His His Tyr His Asn Asp Ser Asn Phe Thr
50 55 60
Ser His His Arg Pro Asp Glu Gly Pro Val Tyr Met Ala Phe Asp Glu
65 70 75 80
Asp Gly Tyr Thr Pro Pro Val Pro Leu Pro Arg Tyr Thr Pro Arg Pro
85 90 95
Met Ser Ser Ile Gln Glu Lys Thr Leu Glu Ala His Met Arg Asp Pro
100 105 110
Pro Val Ser Ser Ser Arg Ser Ile Ile Ser Leu His Asp Glu Lys Asn
115 120 125
Pro Arg Asp Phe Ala Ser Ala Asp Gly Asp Glu Leu Thr Ser Asp Val
130 135 140
Ser Ser Ala Ile Ser Phe Pro Ser Ser Tyr Gly Asn Thr Ser Thr Ala
145 150 155 160
Thr Arg Glu Thr Pro Pro Pro Pro Tyr Ser Pro Arg Met Ser Pro Ala
165 170 175
Pro Ser Arg Ser Met Ser Ile Ser Ser Leu Asn Pro Pro Pro Leu Pro
180 185 190
Pro Pro Pro Pro Met Ala His Ile Ala Gln Pro Arg Pro Val Leu Arg
195 200 205
Arg Glu Cys Leu Pro Arg Asp Leu Ala Gly His Ser Arg Val Ser Phe
210 215 220
Glu Ser Gln Arg Arg Phe Ser Trp Glu Ser Arg
225 230 235

<210> 39552
<211> 89
<212> PRT
<213> A.fumigatus

<400> 39552
Glu Phe Asp Leu Leu Asn Arg Tyr Tyr His His Tyr Asn Leu Leu Arg
1 5 10 15
Leu Ser Ala Trp Leu Ile Ala Phe Phe Leu Ser Tyr Ile Gln Val Pro
20 25 30
Cys Arg Phe Gly Pro Phe Val Ser Ile Ile Ile Ile Thr Thr Thr Thr
35 40 45
Tyr Phe Leu Leu Leu Tyr Tyr Tyr Tyr Tyr Tyr Tyr Phe Tyr Leu Phe
50 55 60
Ser Arg Cys His Leu Asp Leu Asn Asn Pro Ser Arg Pro Ala Cys Asp
65 70 75 80
His His Ser Phe Phe Pro Val Arg Leu
85

<210> 39553
<211> 136

<212> PRT
<213> A.fumigatus

<400> 39553
Leu Ala Leu Lys Asn Ser Ala Ala Ser Ser Ser Ala Leu Pro Pro Ile
1 5 10 15
Ser Pro Ile Lys Met Ile Pro Ser Val Ser Ser Ser Ser Arg Lys Ile
20 25 30
Phe Arg Gln Ser Met Lys Leu Val Pro Glu Lys Gly Ser Pro Pro Ile
35 40 45
Pro Thr Thr Arg Asp Trp Pro Arg Pro Ala Trp Val Val Trp Leu Thr
50 55 60
Ala Ser Tyr Val Arg Val Pro Asp Arg Asp Thr Ile Pro Thr Arg Pro
65 70 75 80
Arg Leu Trp Met Asn Pro Gly Met Ile Pro Ile Leu His Trp Pro Tyr
85 90 95
Asp Val Glu Arg Arg Ile Ser Thr Arg Arg Thr Ala Leu Glu Lys Pro
100 105 110
Asn Ser Asp Ala Thr Glu Leu Thr Gly Ala Met Ile Pro Gly Gln Leu
115 120 125
Gly Pro Thr Arg Arg Val Leu Phe
130 135

<210> 39554
<211> 577
<212> PRT
<213> A.fumigatus

<400> 39554
Thr Phe Thr Met Ala Thr Leu Thr Met Thr Met Pro Pro Pro Ser Lys
1 5 10 15
Pro Lys Asn Gly Asn Glu Lys Leu Pro Pro Glu Asn Glu Arg Tyr Met
20 25 30
Arg Ala Cys Ser Asp Ile Ala Asn Val Leu Ile Gln Glu Tyr Glu Ala
35 40 45
Gln Arg Asp Ser Thr Lys Pro Arg Lys Asp Ile Asn Leu Asn Lys Leu
50 55 60
Arg Gly Gln Ile Ala Lys Lys His Arg Leu Ala Thr Gln Pro Pro Leu
65 70 75 80
Thr Ala Ile Ile Ala Ala Val Pro Glu Gln Tyr Lys Lys Tyr Ile Leu
85 90 95
Pro Lys Leu Ile Ala Lys Pro Ile Arg Thr Ser Ser Gly Ile Ala Val
100 105 110
Val Ala Val Met Ser Lys Pro His Arg Cys Pro His Ile Ala Tyr Thr
115 120 125
Gly Asn Ile Cys Val Tyr Cys Pro Gly Gly Pro Asp Ser Asp Phe Glu
130 135 140
Tyr Ser Thr Gln Ser Tyr Thr Gly Tyr Glu Pro Thr Ser Met Arg Ala
145 150 155 160
Ile Arg Ala Arg Tyr Asp Pro Phe Glu Gln Ala Arg Gly Arg Val Asp
165 170 175
Gln Ile Lys Ser Leu Gly His Ser Val Asp Lys Val Glu Tyr Ile Val
180 185 190
Met Gly Gly Thr Phe Met Ser Leu Pro Pro Asp Tyr Arg Glu Ser Phe
195 200 205
Ile Ala Gln Leu His Asn Ala Leu Ser Gly Tyr Gln Thr Asp Asn Val

```
    210                 215                 220
Asp Glu Ala Val Gln Ala Gly Glu Met Ser Asn Ile Lys Cys Val Gly
225                 230                 235                 240
Ile Thr Ile Glu Thr Arg Pro Asp Tyr Cys Leu Asp Thr His Leu Ser
                245                 250                 255
Asp Met Leu Arg Tyr Gly Cys Thr Arg Leu Glu Ile Gly Val Gln Ser
            260                 265                 270
Leu Tyr Glu Asp Val Ala Arg Asp Thr Asn Arg Gly His Thr Val Ala
        275                 280                 285
Ala Val Ala Glu Thr Phe Lys Leu Ala Lys Asp Ala Gly Phe Lys Val
    290                 295                 300
Val Ser His Met Met Pro Asp Leu Pro Asn Val Gly Met Glu Arg Asp
305                 310                 315                 320
Leu Phe Gln Phe Gln Glu Tyr Phe Glu Asn Pro Ala Phe Arg Thr Asp
                325                 330                 335
Gly Leu Lys Ile Tyr Pro Thr Leu Val Ile Arg Gly Thr Gly Leu Tyr
            340                 345                 350
Glu Leu Trp Arg Thr Gly Arg Tyr Lys Asn Tyr Thr Pro Asn Ala Leu
        355                 360                 365
Val Asp Leu Val Ala Arg Ile Leu Ala Leu Val Pro Pro Trp Thr Arg
    370                 375                 380
Ile Tyr Arg Val Gln Arg Asp Ile Pro Met Pro Leu Val Thr Ser Gly
385                 390                 395                 400
Val Glu Asn Gly Asn Leu Arg Glu Leu Ala Leu Ala Arg Met Lys Asp
                405                 410                 415
Phe Gly Thr Thr Cys Arg Asp Val Arg Thr Arg Glu Val Gly Ile Asn
            420                 425                 430
Glu Val Lys Asn Lys Ile Arg Pro Ser Gln Val Glu Leu Ile Arg Arg
        435                 440                 445
Asp Tyr Thr Ala Asn Gly Gly Trp Glu Thr Phe Leu Ala Tyr Glu Asp
    450                 455                 460
Pro Lys Gln Asp Ile Leu Ile Gly Leu Leu Arg Leu Arg Lys Cys Ser
465                 470                 475                 480
Ala Thr His Thr Phe Arg Pro Glu Phe Thr Gly Gln Gln Thr Ser Ile
                485                 490                 495
Val Arg Glu Leu His Val Tyr Gly Ser Ala Val Pro Leu His Gly Arg
            500                 505                 510
Asp Pro Arg Lys Phe Gln His Arg Gly Phe Gly Thr Leu Leu Met Glu
        515                 520                 525
Glu Ala Glu Arg Ile Ala Arg Glu Glu His Gly Ser Arg Lys Ile Ser
    530                 535                 540
Val Ile Ser Gly Val Gly Val Arg Ser Tyr Tyr Ala Arg Leu Gly Tyr
545                 550                 555                 560
Thr Leu Asp Gly Pro Tyr Met Ser Lys Met Leu Asp Pro Ile Glu Asp
                565                 570                 575
Glu
```

<210> 39555
<211> 94
<212> PRT
<213> A.fumigatus

<400> 39555

```
Ile Ser Ile Ala Asp Ala Asp Phe Pro His Phe Ala Ala Leu Arg Arg
1               5                   10                  15
```

```
Val Phe Leu Ser Thr Val Ser Leu Phe Ser Pro Arg Asn Met Ala Ser
            20                  25                  30
Phe Asp Ala Lys Thr Asp Ser Glu Ser Thr Asp Met Val Arg Ile Thr
        35                  40                  45
Asp Ile Leu Lys Thr Gln Asn Lys Thr Arg Leu Val Gly Pro Asn Cys
    50                  55                  60
Pro Gly Ile Ile Ala Pro Val Ser Ser Val Ala Ser Glu Phe Gly Phe
65                  70                  75                  80
Ser Lys Ala Val Arg Arg Val Asp Ile Leu Leu Ser Thr Ser
                85                  90
```

<210> 39556
<211> 135
<212> PRT
<213> A.fumigatus

<400> 39556

```
Gly Gln Cys Lys Ile Gly Ile Met Pro Gly Phe Ile His Lys Arg Gly
1               5                   10                  15
Arg Val Gly Ile Val Ser Arg Ser Gly Thr Leu Thr Tyr Glu Ala Val
            20                  25                  30
Asn Gln Thr Thr Gln Ala Gly Leu Gly Gln Ser Leu Val Val Gly Ile
        35                  40                  45
Gly Gly Asp Pro Phe Ser Gly Thr Asn Phe Ile Asp Cys Leu Lys Ile
    50                  55                  60
Phe Leu Glu Asp Glu Glu Thr Asp Gly Ile Ile Leu Ile Gly Glu Ile
65                  70                  75                  80
Gly Gly Ser Ala Glu Glu Asp Ala Ala Glu Phe Phe Lys Ala Asn Tyr
                85                  90                  95
Lys His Asn Lys Pro Ala Val Gly Phe His Arg Trp Ala Leu Thr Leu
            100                 105                 110
Leu Pro Val Val Leu Trp Val Thr Pro Val Leu Ser Ser Thr Val Gly
        115                 120                 125
Lys Val Gly Ala Glu Leu Gln
    130                 135
```

<210> 39557
<211> 76
<212> PRT
<213> A.fumigatus

<400> 39557

```
Pro Leu Asp Leu Gly Cys Ile Gly Val Arg Gln Glu Phe Arg Ser Leu
1               5                   10                  15
Gln Phe Pro Gly Thr Lys Val Val Gly Gly Thr Asn Pro Lys Lys Ala
            20                  25                  30
Gly Thr Met His Leu Asp Arg Pro Val Phe Ala Asn Val Ser Glu Ala
        35                  40                  45
Val Lys Glu Thr Gly Ala Thr Ala Ser Ala Ile Phe Val Pro Tyr Gly
    50                  55                  60
Ile Thr Ile Ser Arg Phe Arg Arg Cys Arg Thr Tyr
65                  70                  75
```

<210> 39558
<211> 108
<212> PRT

<213> A.fumigatus

<400> 39558
Gly Gly Cys Arg Pro Asp His Gln Asn Arg Gln His Cys Pro Trp Leu
1 5 10 15
Pro Thr Tyr Ser His Pro Ala Thr Asn Glu Thr Gln Pro Pro Ser Arg
20 25 30
Val Val Tyr Ser Arg Pro Ser Thr Met Ala His Glu Met Gly Lys Leu
35 40 45
Phe Leu Arg Leu Phe Arg Cys Ser Glu Ala Ser Thr Phe His Leu Ile
50 55 60
Ser Arg Tyr Cys Pro Ala Thr Ser Leu Ser Leu Leu Ala Ser Ala Phe
65 70 75 80
Arg Arg Val Leu Leu Ile Arg Ser Gln Asn Lys Gln Gly Glu Leu His
85 90 95
Leu Asn Ala Arg Val Ser His Arg Lys Leu His Ser
100 105

<210> 39559
<211> 114
<212> PRT
<213> A.fumigatus

<400> 39559
Lys Ser Cys Thr Asp Thr Val Ile Ala Val Met Ala Leu Pro Gln Thr
1 5 10 15
Gln Ile Ala Ala Val Val Ser Gly Pro Arg Lys Ser Ser Ser Ala Arg
20 25 30
Val Glu Ile Thr Ser Glu Arg Pro Val Pro Ser Pro Lys Gln Gly Glu
35 40 45
Val Leu Ile Lys Leu Glu Tyr Ser Gly Val Cys His Ser Asp Val His
50 55 60
Ser Ile Arg Gly Asp Thr Leu Met Leu Thr Asp Val Ala Gly His Glu
65 70 75 80
Gly Val Gly Lys Val Ile Gln Gly Glu Ala His Arg Ala Asp Leu Pro
85 90 95
Cys Leu Thr Val Leu Leu Met Tyr Ser Leu Ser Leu Ser Trp Ile Glu
100 105 110
Arg Gly

<210> 39560
<211> 130
<212> PRT
<213> A.fumigatus

<400> 39560
Asp Leu Gly Gly Gln Thr Ser Ile Arg Pro Tyr Trp Arg Cys Tyr Tyr
1 5 10 15
Ala Asn Thr Ala Ala Val Ile Phe Val Ile Asp Ser Thr Asp Ile Glu
20 25 30
Arg Leu Gly Thr Ala Ala Asp Glu Leu Ala Ala Met Leu Asn Glu Glu
35 40 45
Glu Leu Arg Asp Ala Ala Leu Leu Val Phe Ala Asn Lys Gln Asp Gln
50 55 60
Pro Gly Ala Lys Gly Ala Gly Glu Ile Ser Glu Ala Leu Lys Leu Gly

65 70 75 80
Glu Leu Arg Asp Arg Asn Trp Ser Ile Val Ala Cys Ser Ala Ile Asp
85 90 95
Gly Lys Gly Leu Asp Glu Gly Met Asp Trp Leu Val Val Ser Cys Pro
100 105 110
Leu Trp Leu Ser Ala Arg Phe Val Pro Ile Leu Asp Leu Gln Gly Thr
115 120 125
Asn Leu
130

<210> 39561
<211> 66
<212> PRT
<213> A.fumigatus

<400> 39561
Val Ser Trp Thr Ile Gly Leu Thr Ile Val Gly Asn Ser Ala Gly Thr
1 5 10 15
Ala Lys Glu Met Glu Glu Leu Leu Thr Met Ala Val Ala Gly Asp Val
20 25 30
Lys Ala His Ile Glu Cys Phe Asp Phe Ser Cys Ile Asn Asp Val Leu
35 40 45
Gln Arg Leu Glu Arg Ala Glu Ile Asp Gly Arg Ala Val Leu Lys Ile
50 55 60
Pro Glu
65

<210> 39562
<211> 100
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (24),(29)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39562
Ile Leu Ile Gln Trp Gly Gln Lys Glu Glu Leu Cys Leu Ser Leu Gly
1 5 10 15
Ala Thr Asp Tyr Phe Asp Tyr Xaa Lys Asp Asp Met Xaa Val Ser Val
20 25 30
Thr Ser Val Thr Arg Gly Leu Gly Ala His Ala Val Ile Cys Thr Ala
35 40 45
Asn Ser Glu Ser Ala Tyr Ile His Ser Met Gln Met Leu Arg Arg Leu
50 55 60
Gly Val Leu Val Cys Val Gly Ile Pro Asn Glu Pro Phe Arg Leu Pro
65 70 75 80
Ser Thr Pro Leu Asp Met Ile Val Lys Gly Met Gly Arg Thr Arg Arg
85 90 95
Cys Gln Pro His
100

<210> 39563
<211> 94
<212> PRT

<213> A.fumigatus

<400> 39563
Ala Leu Leu Arg Phe Phe Ala Met Ser Ser Phe Ser Ser Thr Pro Ala
1 5 10 15
Gly Ser Phe Leu Ser Arg Met Glu Pro Val His Ala Tyr Ile Ala Gly
20 25 30
Ala Gly Phe Leu Val Cys Ala Leu Val Gly Val Val Leu Met Leu Ala
35 40 45
Ser Gln His Lys Lys Phe Asp Tyr Asn Ser Gly Ile Phe Thr Tyr Leu
50 55 60
Arg Phe Ile Tyr Ala Ser Phe Leu Lys Pro His Lys Lys Gly Leu Asn
65 70 75 80
Gly Gln Gln Asp Ala Leu Glu Ser Phe Tyr Lys Thr Gln Val
85 90

<210> 39564
<211> 80
<212> PRT
<213> A.fumigatus

<400> 39564
Asp Ser Tyr Asn Ile Glu Ala Met Ala Ser Phe Leu Pro Val Thr Gln
1 5 10 15
Phe Phe Ser His Val Tyr Leu Val Asp Leu Ser Pro Ser Leu Cys Glu
20 25 30
Val Ala Arg Gln Arg Phe Glu Arg Leu Gly Trp Lys Asn Val Thr Val
35 40 45
Val Cys Gln Asp Ala Arg Ser Phe Arg Leu Pro Pro Glu Lys Gly Ile
50 55 60
Ser Gln Gly Pro Glu Asp Pro Ala Trp Leu Met Gly Gly Arg Glu Asp
65 70 75 80

<210> 39565
<211> 88
<212> PRT
<213> A.fumigatus

<400> 39565
Leu Thr Leu Cys Ile Gly Phe Phe Ser Phe Lys Trp Pro Asp Phe Thr
1 5 10 15
Ile Lys Phe Asp Tyr Ile Gly Glu Ser Val Asn Val Arg Ala His Pro
20 25 30
Thr Trp Val Gly Ser Thr Val Asn Val Arg Lys Ser Met Asp Val Ala
35 40 45
Leu Ser Met Asn Ala Gln Ser Glu Ile Ser Lys Cys Ser Val Cys Ile
50 55 60
Leu Asn Tyr Leu Ala Ser Ser Ala Thr Leu His Leu Thr Leu Gln Asp
65 70 75 80
Phe Ser Asp Gln Tyr Thr Thr Leu
85

<210> 39566
<211> 174
<212> PRT
<213> A.fumigatus

<400> 39566
Asn Gly Thr Cys Leu Phe Val Gly Arg Gln Gln Ser Gln His Ala Gln
1 5 10 15
Ile Ile Asp Ile Ile Ile Met Leu Leu Ala Tyr Leu Ala Met His Leu
20 25 30
Thr Phe Leu Ser Leu Phe Met Ser Met Arg Gln Leu Gly Ser Arg Phe
35 40 45
Trp Leu Ala Tyr Ser Val Leu Leu Ser Gly Phe Phe Ser Leu Phe Phe
50 55 60
Gly Leu Lys Val Thr Thr Ser Ser Gly Val Ser Thr Ser Met Ile Thr
65 70 75 80
Leu Ser Glu Cys Leu Pro Ile Leu Ala Ile Ile Val Gly Phe Glu Lys
85 90 95
Pro Ile Arg Leu Thr Arg Ala Val Leu Arg Ala Ala Thr Glu Ser Tyr
100 105 110
Leu Pro Ala Lys Pro Met Ala Arg Arg Ser Thr Pro Glu Ala Ile Glu
115 120 125
Val Ala Ile Met Arg Glu Gly Trp Arg Ile Val Arg Asp Tyr Ala Ile
130 135 140
Glu Ile Ala Ile Leu Ala Ala Gly Ala Thr Ser Arg Val Gln Gly Ala
145 150 155 160
Leu Pro Ser Val Leu Leu Ser Cys Gly Leu Asp Pro Pro Leu
165 170

<210> 39567
<211> 290
<212> PRT
<213> A.fumigatus

<400> 39567
Arg Ala Asp Arg Leu Ala Glu Lys Arg Thr Val Asp Ala Met Leu Gln
1 5 10 15
Glu Gly Arg Val Ser Leu Leu Glu Asp Glu Glu Ile Val Asn Leu Cys
20 25 30
Leu Arg Gly Lys Ile Ser Ala His Ala Leu Glu Lys Thr Met Glu Arg
35 40 45
His Pro Thr Met Ser Arg Leu Glu Ala Phe Thr Arg Ala Val Lys Ile
50 55 60
Arg Arg Thr Val Val Ser Arg Thr Pro Ser Thr Ile Asp Val Ser Ser
65 70 75 80
Ser Leu Glu Tyr Ser Lys Ala Pro Phe Glu Asn Tyr Asp Tyr Thr Leu
85 90 95
Val His Gly Ala Cys Cys Glu Asn Ile Ile Gly Tyr Leu Pro Leu Pro
100 105 110
Val Gly Ala Gly Gly Pro Leu Glu Ile Asp Gly Arg Asn Tyr Phe Ile
115 120 125
Pro Met Ala Thr Thr Glu Gly Val Leu Val Ala Ser Ala Ser Arg Gly
130 135 140
Cys Lys Ala Ile Asn Ala Gly Gly Gly Ala Val Thr Val Ile Asn Ala
145 150 155 160
Asp Gly Met Thr Arg Gly Pro Cys Leu Ala Phe Ser Ser Val Ser Arg
165 170 175
Ala Ala Glu Ala Lys Gln Trp Ile Asp Ser Asp Glu Gly Lys Lys Ile
180 185 190
Leu Ala Thr Ala Phe Asn Ser Thr Ser Arg Phe Ala Arg Leu Gln Gly

```
        195                 200                 205
Leu Lys Ser Ala Gln Ala Gly Thr Tyr Leu Tyr Val Arg Phe Lys Ser
    210                 215                 220
Thr Thr Gly Asp Ala Met Gly Met Asn Met Ile Ser Lys Gly Val Glu
225                 230                 235                 240
Lys Ala Leu Glu Val Met Lys Gly His Gly Phe Ser Asp Met Ser Thr
                245                 250                 255
Ile Ser Val Thr Gly Asn Tyr Cys Val Asp Lys Lys Pro Ala Ala Ile
            260                 265                 270
Asn Trp Ile Asp Gly Arg Gly Lys Ser Val Val Ala Glu Ala Phe His
        275                 280                 285
Pro Ser
    290
```

<210> 39568
<211> 320
<212> PRT
<213> A.fumigatus

<400> 39568

```
Arg Glu Pro Ser Cys Val Leu Arg Pro Asn Pro Thr Phe Leu Gln Asn
1               5                   10                  15
Gln Trp Pro Val Gly Pro His Pro Lys Pro Leu Arg Trp Pro Ser Cys
            20                  25                  30
Ala Lys Asp Gly Val Ser Cys Val Thr Thr Leu Leu Lys Leu Leu Ser
        35                  40                  45
Trp Arg Gln Ala Gln Leu Gln Gly Tyr Lys Gly Leu Ser Pro Gln Phe
    50                  55                  60
Cys Phe Leu Ala Ala Trp Ile Leu Leu Phe Asp Ser Phe Ala Pro Ile
65                  70                  75                  80
Leu Pro Phe Tyr Ile Ser Val Leu Cys Val Lys Leu Glu Ile Thr Arg
                85                  90                  95
Ile Arg Lys His Val Glu Pro Arg Arg Ala Leu Glu Asp Asp Asp Ile
            100                 105                 110
Ser Thr Gly Asn Gln Asp Phe Asp Ser Arg Val Phe Gly Cys Lys Val
        115                 120                 125
Lys Ala Ala Asn Ile Ser Arg Phe Lys Phe Leu Met Val Gly Gly Phe
    130                 135                 140
Val Leu Phe Asn Val Leu Gln Leu Ser Ser Leu Thr Tyr Gly Asn Val
145                 150                 155                 160
Arg Val Ser Asp Trp Met Pro Tyr Leu Ser Asn Leu Ser Asn Thr Leu
                165                 170                 175
Met Pro Ala Pro Ile Asn Pro Tyr Arg Val Val Arg Asn Gly Leu Asp
            180                 185                 190
Asp Ile Tyr Val Ala Ser Arg Ala Asn Asn Ile Glu Thr Arg Val Thr
        195                 200                 205
Val Leu Pro Pro Ile Lys Tyr Val Leu Gln Ser Gln Ser Arg His Cys
    210                 215                 220
Arg Asp Asn Phe Ala Gly Pro Leu Cys Asp Thr Leu Arg Gly Arg Thr
225                 230                 235                 240
Leu Gly Cys Val Leu Ala Trp Leu Glu Asp Pro Val Ile Ser Lys Trp
                245                 250                 255
Val Ile Ala Ala Leu Phe Leu Ser Leu Val Leu Asn Ser Tyr Leu Met
            260                 265                 270
Lys Ala Ala Arg Trp Asn Leu Arg Gln Ser Glu Val Ile Pro Asp Ser
        275                 280                 285
```

```
Ser Ala Thr Val Ser Gln Thr Lys Asp Ser Ser Asn Lys Tyr Glu Lys
    290                 295                 300
Thr Met Ser Gly Pro Ser Glu Leu Ile Asp Ser Gln Lys Ser Glu Gln
305                 310                 315                 320

<210> 39569
<211> 65
<212> PRT
<213> A.fumigatus

<400> 39569
Leu Gly Gln Leu Arg Ser Thr Val Arg Ser Thr Ser Leu Lys Ala Leu
1               5                   10                  15
Ser Lys Pro Pro Pro Phe Phe Ser Gly Ala Ala Ser Gln Leu Arg Ile
            20                  25                  30
Glu Leu Val Asn Tyr Gly Gln Leu Val Ile Asn Tyr Asp Glu Leu Ser
        35                  40                  45
Gly Pro Leu Gly Ser Arg Arg Tyr Ala Ser Arg Leu Phe Pro Phe Leu
    50                  55                  60
Gly
65

<210> 39570
<211> 562
<212> PRT
<213> A.fumigatus

<400> 39570
Met Gly Phe Ser Ala Leu Ser Thr Glu Leu Ile Gln Leu Ile Ala Arg
1               5                   10                  15
Gln Leu Thr Glu Lys Asp Thr Ala Ile Leu Ala Arg Thr Cys Gln Leu
            20                  25                  30
Leu Tyr Arg Thr Leu Asn Ser Ile Leu Tyr Arg Tyr Asn Ala Lys Tyr
        35                  40                  45
His Ala Ser Ser Ala Leu Leu Trp Ala Cys Glu Lys Gly Ile Leu Asp
    50                  55                  60
Thr Val Leu Arg Phe Leu Glu Tyr Asn Thr Asn Asp Asn Thr Arg Leu
65                  70                  75                  80
Ser Ser Asp Trp Lys Gly Arg Asp His Pro Leu Tyr Val Ala Ala Lys
                85                  90                  95
Asn Gly Tyr Asp Glu Ile Val Arg Thr Leu Leu Gln Glu Gly Val Lys
            100                 105                 110
Val Asp Ala Thr Ser Asn Arg Arg Arg Thr Ala Ile Ser Ile Ala Ala
        115                 120                 125
Ser Asn Gly His Gln Ser Val Val Asp Glu Leu Leu Cys Ala Gly Ala
    130                 135                 140
Asp Tyr Asp Leu Ala Asp Asp Glu Arg Lys Thr Pro Leu Ser Trp Ala
145                 150                 155                 160
Ala Glu His Gly Phe Val Ala Val Val Glu Gln Leu Val Ala Ala Gly
                165                 170                 175
Ala Asn Ile Asn His Ile Asp Ile His Gly Gln Thr Pro Leu Tyr Leu
            180                 185                 190
Ala Ala Trp Arg Gly Arg Asp Glu Ser Val Arg Gln Leu Leu Gln Ala
        195                 200                 205
Lys Ala Asp Thr Ser Ile Ser Ala Asp Ile Thr Gly Leu Thr Ala Leu
    210                 215                 220
```

```
Ser Ile Ala Ala Phe Lys Gly Asn Ser Ala Ile Val Lys Gln Leu Ile
225                 230                 235                 240
Lys Ala Gly Ala Asp Ile His His Thr Asn Ala Thr Gly Asn Thr Pro
                245                 250                 255
Leu Met Leu Ala Val Cys Ile Arg His Ile Ala Thr Val Arg Glu Leu
            260                 265                 270
Leu His Ala Gly Ala Lys Thr Thr Gly Cys Ser Thr Asn Arg Glu Asn
        275                 280                 285
Ala Leu Ala Trp Ala Ala Glu His Gly Asp Ile Asp Met Val Arg Ile
    290                 295                 300
Leu Ile Glu Ala Gly Ala Asp Val Lys Ser Thr His Pro Asp Gly Arg
305                 310                 315                 320
Asn Ala Leu Ser Phe Ala Ala Glu Arg Gly His Ile Glu Ile Cys Lys
                325                 330                 335
Ile Leu Val Gln Ala Gly Ser Glu Val Asp Ser Val Asp Met Leu Gly
            340                 345                 350
Arg Thr Ala Leu Ser Trp Ala Ala Glu His Gly Ser Ile Asp Gln Phe
        355                 360                 365
Ile Tyr Leu Trp Gln Leu Asp Pro Gln Leu Gly Gln Thr Asp Arg Phe
    370                 375                 380
Gly Arg Ser Pro Leu Ser Trp Ala Ala Glu Lys Gly His Asn Asp Ile
385                 390                 395                 400
Ile Ser Phe Val Val Ser Gln Arg Ala Pro Leu Asp Ile Thr His Lys
                405                 410                 415
Gly Asn Trp Asp Val Glu Leu Ile Ser Asp Ala Ile Arg Lys Leu His
            420                 425                 430
Arg Ser Thr Phe Lys Leu Leu Pro Pro Leu Arg Phe Pro Trp Gln Phe
        435                 440                 445
Arg Arg Glu Glu Phe Arg Arg Glu Asp Ala Ala Thr Leu Gln Arg Pro
    450                 455                 460
Ala Cys Asn Pro Leu Gly Ile Ala Val Ala Gln Gly His Thr Gln Ala
465                 470                 475                 480
Val Lys Thr Leu Leu Asp Ala Gly Ala Ala Thr Asp Ile Lys Asp Ile
                485                 490                 495
Thr Gly Phe Thr Pro Leu Met Leu Ala Ala Lys Arg Gly Asp Leu His
            500                 505                 510
Val Val Ser Leu Leu Val Ser Ala Gly Ala Ser Leu Asp Arg Lys Cys
        515                 520                 525
Gln Arg Gly Trp Asp Ala Ala Lys Ile Ala Ser Ala Ser Gly His His
    530                 535                 540
Ser Leu Ala Phe Tyr Leu Asn Arg Glu Ser Gly Arg Met Arg Tyr Thr
545                 550                 555                 560
Ser Pro
```

<210> 39571
<211> 567
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (105)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39571

```
Lys Thr Leu Ser Pro Cys Thr Ser Asp Gly Val Val Val Ala Thr Ala
1               5                  10                  15
Leu Ala Arg Tyr Ile Tyr Arg Glu Gly Met Arg Ser Glu Phe Trp Glu
            20                  25                  30
Arg Met Glu Glu Pro Ser Glu Glu Thr Cys Gly Val Ala Phe His Val
        35                  40                  45
Phe Asp Arg Tyr Gly Thr Val Gln Thr Lys Tyr Lys Asp His Pro Val
    50                  55                  60
Gln Arg Gly Thr Gly Val Trp Gly Asn Glu Leu Asp His Gly Pro Leu
65                  70                  75                  80
Phe Leu Ile Glu Lys Val His Val Thr Ala Leu Glu Leu Arg Arg Lys
                85                  90                  95
Gly Leu Gly Gln Lys Leu Val Ser Xaa Leu Leu Asn Lys Ala Arg Gln
            100                 105                 110
Phe Cys Leu Asn Glu Lys Gly Asp Gly Glu Tyr Ala Asp Leu Ile Tyr
        115                 120                 125
Gly Ser Asp Glu Ala Phe Glu Arg Ala Trp Thr Leu His Ala Leu Ala
    130                 135                 140
Ser Pro Gly Ile Leu Thr Ala Asp Val Glu Ser Gln Leu Val Gly Lys
145                 150                 155                 160
Ser Ala Glu Glu Arg Leu Met Ile Arg Ala Arg Ile Gln Ser Gly Ala
                165                 170                 175
Ile Asp Phe Trp Arg Ser Cys Gly Phe Arg Arg Ile Gly Ala Ser Arg
            180                 185                 190
Cys Phe Ala Phe Ser Phe Asp Leu Gln His Gln Ser His Ala Leu Ala
        195                 200                 205
Ala Ala Ser Asp Phe Asp Pro Arg Arg Ser His Ala Glu Asp Leu Glu
    210                 215                 220
Asp Glu Glu Leu Glu Val Ile Tyr Glu Thr Asp Arg Phe Thr Glu Val
225                 230                 235                 240
Lys Lys Leu Lys Met Gly Arg Leu Arg Asp Ala Leu Pro Leu His His
                245                 250                 255
Ala Ala Leu Thr Leu Thr Asp Glu Glu Leu Asn Ala Phe Phe Val Thr
            260                 265                 270
His Ala Asp Asp Glu Ile Gly Trp Asp Arg Val Thr Asn Ser Glu Ala
        275                 280                 285
Thr Leu Leu His Leu Thr Ala Cys Glu Leu Lys Pro Leu Ser Thr Arg
    290                 295                 300
Trp Leu Leu Glu Asn Val Arg His Ala Asp Ser Trp Lys Thr Ala Arg
305                 310                 315                 320
Asp Ile Asp Gly Tyr Thr Pro Leu Glu Ala Leu Gln Glu Thr Leu Glu
                325                 330                 335
Thr Met Arg Thr Arg Lys Glu Tyr Gly Leu Ser Arg Val Leu Asn Leu
            340                 345                 350
Ser Asp His Phe Lys Gly Tyr Pro Asp Ala Ala Val Ser Cys Leu Ser
        355                 360                 365
Leu Leu Leu Gly Gln Asp Ser Leu Gly Leu Ser Lys Ala Cys Leu Arg
    370                 375                 380
Phe Gly Cys Thr Cys Gly Glu Cys Val Glu Gly Leu Leu Ser Ala Arg
385                 390                 395                 400
Met Arg Ser Ser Leu Ile Phe Gln Val Glu Ile Thr Tyr Asp Leu Met
                405                 410                 415
Gln Glu Glu Ile Asp Asp Gly Asp Phe Trp Ile Lys Asp Asn His Tyr
            420                 425                 430
Ile Leu Val His Phe Asp Pro Asp Val Arg Lys Asn Leu Arg Thr Asn
        435                 440                 445
```

```
Lys Ser Leu Arg Lys Gly Phe Val Asn Ile Phe Gln Ile Ala Val Glu
    450                 455                 460
Cys Ile Lys Ala Arg Lys Leu Pro Thr Ala Glu Asn Leu Lys Trp Cys
465                 470                 475                 480
Cys Asn Asn Arg Ser Glu Trp Pro Pro Asp Thr Lys Asn Tyr Leu Arg
                485                 490                 495
Arg Ala Gly Thr Gln Met Gly Phe Arg Ala Val Leu Arg Arg Met Phe
            500                 505                 510
Asp Thr Ala Lys Glu Glu Asp Glu Lys Ala Gly Asn Gly Glu Cys Gln
        515                 520                 525
Leu Ile Leu Gly Glu Glu Trp Ser Gln Leu Pro Thr Cys Arg Asn Asp
    530                 535                 540
His Glu Phe Glu Val Val Ala Arg Ala Cys Gly Tyr Gly Gly Asp Asp
545                 550                 555                 560
Phe Ile Ser Leu Pro Cys Trp
                565
```

<210> 39572
<211> 84
<212> PRT
<213> A.fumigatus

<400> 39572

```
Arg Pro Gly Met Asp Phe Glu Asp Asp Glu Ser Thr Asp Tyr Gly Ser
1               5                   10                  15
Glu Tyr Asn Gly Leu Ser Asp Ser Lys Glu Glu Gly Trp Trp Arg Glu
            20                  25                  30
Asp Glu Ser Glu Asp Leu Asp Cys Glu Glu Asp Ile Glu Asp His Glu
        35                  40                  45
Tyr Thr Thr Ser Gly Asp Thr Pro Arg Thr Val Lys Ile Arg Leu Phe
    50                  55                  60
Leu Thr Asp Glu Ala Met Gly Glu Phe Lys Trp Met Lys Asn Phe Ile
65                  70                  75                  80
Ala Val His Leu
```

<210> 39573
<211> 188
<212> PRT
<213> A.fumigatus

<400> 39573

```
Ser Val Leu Leu His Phe Val Ser Ser Ser Ser Pro Cys Pro Ser Pro
1               5                   10                  15
Ser Ser Thr Pro Ser Ser Ser Arg Cys Leu Thr Val Pro Ala Pro Gly
            20                  25                  30
Pro Ser Gly Ser Asp Gly Ser Ser Pro Pro Pro Ile Gln Leu Pro Ser
        35                  40                  45
Ser Ser Lys Tyr Ser Cys Ile Phe Ser Ala Val Ile His Pro Glu Leu
    50                  55                  60
Pro Ser Ile Gly Gly Gly Arg Pro Pro Ser Ala Leu Pro Ile Val Thr
65                  70                  75                  80
Lys Pro Asp Cys Met Ser Glu Ser Pro Ser Pro Ser Pro Ser Ser Ser
                85                  90                  95
Ser Ser Asn Gly Ser Gly Trp Arg Phe Glu His Ala Asp Thr Ala Ala
            100                 105                 110
```

```
Tyr Ile Ile Cys Thr Gly Val Ser Ser Phe Ser Ala Trp Ser Ser Ile
        115                 120                 125
Ala Ser Ser Ala Gly Ala Val Val Ala Pro Pro Thr Tyr Ser Ala Pro
    130                 135                 140
Val Gly Gly Thr Ile Val Ser Val Met Leu Ser Ser Ser Ser Ser Ser
145                 150                 155                 160
Val Phe Val Pro Gly Ala Pro Gly Val Ala Ile Cys Met Tyr Arg Pro
                165                 170                 175
Trp Thr Ser Ala Gly Phe Pro Gly Arg Arg Arg Arg
            180                 185
```

<210> 39574
<211> 860
<212> PRT
<213> A.fumigatus

<400> 39574

```
Arg Lys Glu Arg Thr Arg Leu Thr Met Pro Ala Leu Ala Thr Val Ile
1               5                   10                  15
Ala Val Ala Ala Val Cys Ala Ala Leu Phe Ile Val Ser Ala Val Val
            20                  25                  30
Gly Thr Leu Val Trp Ile Lys Ala Trp Arg Glu Arg Arg Ser Arg Lys
        35                  40                  45
Ala Val Asn Leu Gly Gln Gly Arg Tyr Ala Arg Gln Ser Arg Ala Phe
    50                  55                  60
Glu Ala Asp Thr Ala Thr Ser Leu Ser Arg Glu Glu Gly Ser Ala Leu
65                  70                  75                  80
Arg Leu Tyr Gly Gln Leu Pro Tyr Gly Lys Pro Thr Glu Trp Gly Val
                85                  90                  95
Leu Ala Ser Arg Glu Ser Leu Thr Tyr Ser Thr Val Asp Ser Glu Ala
            100                 105                 110
Ser Ser Gln Leu Ala Glu Lys Ala Arg Ser Leu Gly Arg Ser Leu Ser
        115                 120                 125
Arg Ser Lys Ser Thr Arg Gln Leu Lys Gly Leu Leu Arg Pro Gln Pro
    130                 135                 140
Pro Gly Pro Leu Ala Pro Leu Ala Glu Ala Ala Ala Glu Arg Pro Cys
145                 150                 155                 160
Asp Lys Gly Pro Arg Tyr Lys Ala Arg Asp His Val Ser Val Ser Ala
                165                 170                 175
Val Glu Gly Ala Leu Glu Leu Pro Thr Glu Met Thr Pro Arg Gln Thr
            180                 185                 190
Pro Glu Lys Glu Glu Glu Arg Ser Leu Ala Gly Pro Ser Ile Arg Pro
        195                 200                 205
Leu Ser Thr Val Met Pro Ser Val His Arg Arg Glu Arg Ser Gly Asn
    210                 215                 220
Leu Phe Pro Val Met Glu Asp His His Glu Gly Phe Glu Leu Pro Phe
225                 230                 235                 240
Thr Arg Val Arg Gly Gly Ser Ile Thr Thr Gln Thr Ala Gly Ala Ile
                245                 250                 255
Pro Glu Gln Pro Val Pro Pro Pro Pro Ser Ala Tyr Pro Pro Asn Arg
            260                 265                 270
Phe Arg Leu Ser Lys Asn Asp Ser Met Arg Phe Ser Ser Leu Ser Leu
        275                 280                 285
Glu Thr Ala Asp Ser Ser Ile Leu Asp Asp Ser Arg Arg Thr Ser Thr
    290                 295                 300
Ala Ile Glu Ser Asp Phe Thr Ser Pro Ala Leu Pro Pro Cys Pro Thr
```

305 310 315 320
Phe Thr Pro Phe Ser Ala Asn Asp Val Gly Arg Leu Glu Phe Glu Arg
325 330 335
Arg Ser Phe Ala Ala Ser Asn Ser Ala Tyr Pro Ala Pro Phe Ile Phe
340 345 350
Pro Asp Thr Ser Ser Thr Arg Asp Ser Leu Arg Leu Glu Pro Asn Arg
355 360 365
Thr Ser Pro Arg Arg Ser Leu Thr Thr Arg Ser Pro Ser Gln Thr Glu
370 375 380
Arg Val Ser Pro Pro Pro Arg Arg Ser Glu Ser Leu Cys Ser Asn Gln
385 390 395 400
Ser Arg Arg Glu Val Thr Ser Met Pro His Leu Asp Pro Asn Met Ile
405 410 415
Pro His Leu Asn Ala Thr Gly Tyr Asn Gly Ser Leu Leu Pro Tyr Phe
420 425 430
Ser Gln Leu His Arg His Ser Met Tyr Ala Ser Arg Arg Met Asp Gly
435 440 445
Asp Pro Phe Tyr Arg Asp Gln Ala Ser Ser His Ile Ser Ile His Pro
450 455 460
Pro Arg Ala Pro Ala Arg Arg Val Ser Ser Leu Tyr Val Pro Glu Ile
465 470 475 480
Phe Thr Gln Val Arg Pro Glu Asn Ala Pro Lys Leu Pro Leu Thr Ser
485 490 495
Ala Met Lys Asn Thr Gln Gly His Arg Lys Gly His Arg Arg Gln Asn
500 505 510
Cys Val Arg Ile Ser Ile His Pro Pro Ile Thr Phe Gly Arg Pro Ala
515 520 525
Phe Ser Pro Met Ala Glu Glu Pro Glu Glu Leu Glu Asp Met Ser Ala
530 535 540
His Arg Pro Glu Ala Gln Val Pro Arg Pro Thr Ser Tyr Gly Ile Pro
545 550 555 560
Ser Met Asn Pro Ser Val Val Thr Phe Ser Ala Asn Lys Asn Asp Ser
565 570 575
His Gly Phe Gln Arg Pro Arg Pro Arg Ile Thr Asp Asp Phe Ser Thr
580 585 590
Pro Asp Gly Ser Pro Thr Lys Lys Arg Lys His Ser Arg Ala Asp Ser
595 600 605
Gly Asp Asp Phe Leu Ser Pro Ala Gly Ser Asp Lys Thr Leu Pro Glu
610 615 620
Ile Met Thr Ser Ile Pro Ser Cys Asn Asp Gly Cys Leu Ser Gln Thr
625 630 635 640
Pro Ser Pro Glu Lys Asn Ala Pro Leu Trp Leu Leu Pro Ile His Pro
645 650 655
Ser Ser Pro Thr Ser Arg Glu Asn Ala Ser Pro Gln Thr Ser Pro Arg
660 665 670
Arg Ser Ala Val Lys Gly Pro Arg Thr Leu Pro Asn Pro Met Ala Tyr
675 680 685
Ser Asn Ser Ser Arg Ser Ala Val Pro Leu Glu Glu Asn Asp Thr Pro
690 695 700
Ser Val Gln Gln Ala Ser Ser Ser Asn Pro Pro His Ser Leu Met Pro
705 710 715 720
His Gly Ser Arg Lys Gly Ala Gly Thr Ala Thr Asp Pro Leu Pro His
725 730 735
Asn Glu Arg Ser Ala Val Val Leu His Asn Pro Leu Leu Gln Gln Gln
740 745 750
Asp Gln Gly Asp Leu Ser Cys Asp Val Gln Lys Thr Ser Ser Thr Ser

```
        755                 760                 765
Asn Gly Asn Ile Val Thr Ile Trp Glu Asp Asn Asp Thr Glu Arg Lys
    770                 775                 780
Ala Gln Ala Ile Ala Pro Thr Thr Gln Ser Asn Asp Ser Ala Ser Cys
785                 790                 795                 800
Leu Lys Lys Phe Val His Lys Gly Arg Gln Gln Thr Thr Thr Asp Asp
                805                 810                 815
Lys Thr Pro His Lys Ser Ser Gln Lys Thr Pro Arg Lys Gly Ile Thr
            820                 825                 830
Thr Pro Thr Gly Lys Lys Ile Gly Leu Gly Ile Gly Ala Ala Thr Pro
        835                 840                 845
Gly Ser Leu Tyr Asp Gly Asp Gly Phe Leu Lys Glu
    850                 855                 860
```

<210> 39575
<211> 66
<212> PRT
<213> A.fumigatus

<400> 39575

```
Gly Gly Asp Val Asp Ala Val Gly Leu Phe Pro Val Leu Pro Ser Pro
1               5                   10                  15
Ser Arg Ser Glu Val Gly Phe Pro Asp Ser Ala Gln Pro Pro Asn His
            20                  25                  30
Val Ile Tyr Leu Arg Ser Asp Thr Glu Glu Ser Gln Ser Ser Asn Asn
        35                  40                  45
Asn Asn Ala Leu Asp Gly Met Leu Gly Pro Leu His His Gln Phe Leu
    50                  55                  60
Val Asn
65
```

<210> 39576
<211> 107
<212> PRT
<213> A.fumigatus

<400> 39576

```
Ser Leu Phe His Pro Ala Pro Glu Asp Ser Ser Phe Val Phe Arg Ala
1               5                   10                  15
Glu Gln Pro Leu Gly Gln Ala Arg Val Ile Ser Ile Arg Ala Phe Asn
            20                  25                  30
Ser Ser Ile Thr Pro Ser Asn Lys Cys Lys Leu Val Ile Leu Glu Arg
        35                  40                  45
Asp Leu Leu Ser Thr Pro Ala Leu Asn Ala Ile Arg Gly Ser Ala Pro
    50                  55                  60
Thr Ala Asn Gly Ser Ser Asp His Thr Thr Thr Ala Thr Ala Ser Asn
65                  70                  75                  80
Asn Val Ala Ala Ala Asp Gly Gln Glu Gly Gln Glu Asn Glu Leu Val
                85                  90                  95
Val Asp Gly Val Asp Val Trp Val Thr Ser Glu
            100                 105
```

<210> 39577
<211> 236
<212> PRT
<213> A.fumigatus

<400> 39577
Val Ser His His Pro Pro Pro Asn Thr Leu Ser Leu Leu Ala Phe Tyr
1 5 10 15
Thr Asp Ser Ile Gly Ser Lys Phe Leu Leu Tyr Ala Pro Thr Val Ala
20 25 30
Ala Gly Val Ser Ile Pro Tyr Pro Ser Ile Ser Leu His Ala Ile Gln
35 40 45
Arg Leu Arg Leu Pro Gly Asn Pro Ala Glu Val Gln Gly Leu Tyr Met
50 55 60
Gln Ile Ala Thr Pro Gly Ala Pro Gly Thr Asn Thr Glu Asp Glu Glu
65 70 75 80
Glu Glu Ser Ile Thr Leu Thr Ile Val Pro Pro Thr Gly Ala Glu Tyr
85 90 95
Val Gly Gly Ala Thr Thr Ala Pro Ala Glu Asp Ala Met Asp Asp Gln
100 105 110
Ala Glu Lys Glu Glu Thr Pro Val Gln Met Met Tyr Ala Ala Val Ser
115 120 125
Ala Cys Ser Asn Leu His Pro Asp Pro Leu Glu Glu Asp Glu Glu Gly
130 135 140
Asp Gly Glu Gly Asp Ser Leu Met Gln Ser Gly Phe Val Thr Met Gly
145 150 155 160
Ser Ala Asp Gly Gly Leu Pro Pro Pro Met Asp Gly Ser Ser Gly Trp
165 170 175
Ile Thr Ala Glu Asn Met His Glu Tyr Phe Asp Glu Glu Gly Asn Trp
180 185 190
Ile Gly Gly Gly Glu Glu Pro Ser Leu Pro Leu Gly Pro Gly Ala Gly
195 200 205
Thr Val Arg Gln Arg Glu Asp Glu Gly Val Glu Asp Gly Asp Gly His
210 215 220
Gly Glu Asp Glu Glu Thr Lys Trp Arg Arg Thr Asp
225 230 235

<210> 39578
<211> 685
<212> PRT
<213> A.fumigatus

<400> 39578
Ile Thr Gln Arg Thr Ser Val Tyr Pro Pro His Val Val Ala Ser Ser
1 5 10 15
Tyr His Arg Glu Ile Gln Gln Pro His His Asn Phe Ser Phe Ser Ile
20 25 30
His Tyr Gly Ile Val Leu Phe Glu Gly Met Ala His Lys Glu Arg Asn
35 40 45
Gly Leu Ala Gly Leu Lys Ile Glu Thr Ser Phe Gln Arg His Gln Trp
50 55 60
Gln Arg Ala Glu Gly Gly Arg Gly Ala Thr Asp Asp Gly Ser Gly Ile
65 70 75 80
Glu Gly Asp Arg Thr Asn Ile Phe His Asp Ser Gly Ala Arg Gly Cys
85 90 95
Gly Thr Asp Gln Asp Asn Ser Ile Leu Ser Gly Leu His Ser Ala Thr
100 105 110
Pro Pro Ile Ser Val Pro Arg His Asp Asp Arg His Thr His Asp Val
115 120 125
Ser Tyr Pro His Lys Pro Glu Glu Val Ser Ala Ser Pro Leu Glu Ser

```
    130                 135                 140
Tyr Ile Gln Lys Arg Arg Pro Ser Ile Ser Phe Asp Pro Asn Val Thr
145                 150                 155                 160
Leu Asp Ser Gly Gln Gln Gln Pro Leu Glu Glu Pro Leu Ala Lys Gly
                165                 170                 175
Asp Pro Arg Asp Arg Gly Leu Leu Lys Tyr Gln Ser Arg Thr Ser Gly
            180                 185                 190
Leu Arg Asn Ala Leu Ser Gln Glu Asp Asp Glu Glu His Val Ala Lys
        195                 200                 205
Gln Ile Asp Tyr Asn Ala Ser Pro Arg Arg Tyr Arg Ser Gln Arg Ile
    210                 215                 220
Phe Pro Thr Gly Tyr Arg Gly Ser Phe Pro Thr Ser Pro Glu Glu Glu
225                 230                 235                 240
Met Pro Met Ser Ser Glu Ile Asp Arg Pro Thr Ser Leu Thr Ser Val
                245                 250                 255
Ser Thr Val Ser Pro Ile Asn Asp Glu Val Arg Thr Pro Pro Glu Ser
            260                 265                 270
Ser Arg Asp Leu Leu Ser Pro Ile Tyr Met Ala Ser Pro Val Gln Thr
        275                 280                 285
Phe Ala Ser Leu Asp Asp Arg Ser Ser Trp Ser Thr Gly Val Ile Thr
    290                 295                 300
Pro Phe Gly Ser Lys Pro Arg Gly Phe Arg Gly Pro Thr Arg Gln Ser
305                 310                 315                 320
Ser Arg Arg Ser Thr Leu Ser Ser Gly Lys Ser Pro Ala Ser Thr Phe
                325                 330                 335
Leu Ser Met Trp Asn Gly Arg Glu Glu Pro Thr Pro Gln Pro Asp Asp
            340                 345                 350
Glu Gly Gln Met Val Gly Thr Glu Tyr Val Leu Gly Lys Gln Ile Gly
        355                 360                 365
Phe Gly Gly Phe Ser Thr Val Lys Glu Ala Tyr Lys Val Glu Glu Ser
    370                 375                 380
Gly Gly Thr Arg Arg Leu Ala Val Lys Ile Val Arg Lys Gln Val Ser
385                 390                 395                 400
Gly Lys Ser Glu Lys Glu Asn Asp Met Val Gln Ala Glu Phe Asp His
                405                 410                 415
Glu Val Arg Val Trp Arg Tyr Leu Asn His Pro Asn Ile Leu Thr Leu
            420                 425                 430
Asp Ala Val Tyr Glu Thr Asp Tyr Ala Thr Phe Cys Phe Thr Lys Leu
        435                 440                 445
Ala Ile Gly Gly Thr Leu Phe Asp Leu Val Arg Gln Asn Arg Gln Gly
    450                 455                 460
Leu Asp Ile Lys Leu Ala Lys Lys Tyr Thr Tyr Gln Leu Ala Cys Ala
465                 470                 475                 480
Leu Arg Tyr Leu His Glu Asp Ala Arg Val Val His Arg Asp Ile Lys
                485                 490                 495
Leu Glu Asn Cys Leu Leu Asp Pro His Lys Ser Gln Asp Gly Thr Gln
            500                 505                 510
Ser Ser Thr Leu Val Leu Cys Asp Phe Gly Met Ser Glu Trp Leu Asn
        515                 520                 525
Thr Asp Asn Glu Gly Asp Ser Pro Gly Pro Tyr Asp Asp Ala Ala Asp
    530                 535                 540
Arg Pro Pro Pro Arg Asn Ile Gly Pro Ala Gly Ser Ser Thr Ser Val
545                 550                 555                 560
Ala Gly Ser Leu Glu Tyr Ala Ser Pro Glu Leu Leu Leu Ser Asp Asn
                565                 570                 575
Gly Val Ile Asp Pro Ser Val Asp Ile Trp Ala Phe Gly Val Ile Val
```

```
            580                 585                 590
Tyr Thr Val Ile Val Gly Ser Arg Pro Phe Gln Asp Ser Phe Thr Pro
        595                 600                 605
Arg Ile Gln Ser Asn Ile Leu Asn Gly Thr Trp Asn Arg Gln Ala Val
    610                 615                 620
Leu Gly Asp Ala Ser Asp Pro Gln Val Val Thr Asp Arg Glu Ala Ala
625                 630                 635                 640
Leu Glu Leu Ile Gln Gly Cys Leu Asp Met Asp Val Arg Arg Arg Trp
                645                 650                 655
Thr Ile Arg Asp Val Leu Ser Ser Arg Trp Leu Asp Gly Phe Ser Glu
            660                 665                 670
Asn Thr Gln Asn Gly Ser Ser Asp Ser Ile Trp Lys Leu
        675                 680                 685
```

<210> 39579
<211> 217
<212> PRT
<213> A.fumigatus

```
<400> 39579
Trp Arg Phe Ser Asn Ile Arg Gln Arg Ser Phe Ala Leu Asp Leu Ala
1               5                   10                  15
Pro Ala Asn Leu Asp Arg Ile Gln Glu Trp Ile Asp Gln Gly Arg Ile
            20                  25                  30
Asp Pro Thr Arg Pro Ile Thr Ile Arg Glu Leu Ala Lys Ser Arg Cys
        35                  40                  45
Ile His Gln Thr Lys Asp Gly Val Lys Leu Leu Gly Arg Gly Val Ser
    50                  55                  60
Ala Glu Gly Gly Asn Val Leu Lys Gln Pro Ile His Ile Val Val Ser
65                  70                  75                  80
Arg Ala Ser Ala Ser Ala Ile Ala Ala Val Glu Ala Ala Gly Gly Ser
                85                  90                  95
Val Thr Thr Arg Phe Tyr Thr Arg Ser Ser Ile Ala Arg Ile Met Lys
            100                 105                 110
Arg Glu Thr His Pro Phe Ile Ser Ala Ala Trp Ser Arg Glu Ser Ala
        115                 120                 125
Ser Asp Ala Leu Leu Lys Ala Ala Gly Leu Glu Ala Gln Asp Leu Ala
    130                 135                 140
Glu Ser Asn Ile Met Arg Glu Met Gly Tyr Lys Tyr Arg Leu Pro Asp
145                 150                 155                 160
Pro Thr Lys Arg Arg Asp Ile Glu Tyr Tyr Arg Asp Pro Ala His Arg
                165                 170                 175
Gly Tyr Leu Ser His Leu Leu Lys Pro Leu Glu Gly Pro Ser Leu Phe
            180                 185                 190
Phe Arg Ser Pro Ala Glu Arg Lys Ser Ser Ala Gly Val Lys Lys Glu
        195                 200                 205
Lys Val Leu Pro Glu Asn Arg Leu Trp
    210                 215
```

<210> 39580
<211> 89
<212> PRT
<213> A.fumigatus

```
<400> 39580
Leu Asp Ser Gln Gln Gln Asp Gly Lys Gln Glu His Pro Met Ala Ile
```

```
1               5                   10                  15
Ile Ile Ile Ser Leu Arg Ala Glu Gly Lys Cys Tyr Ser Cys Tyr Gly
            20                  25                  30
Tyr Gly His Thr Leu Val Thr Thr Leu Pro Ala Pro Ile Val Thr Pro
        35                  40                  45
Phe Pro Ile Val Thr Pro Gly Arg Thr Ile Thr Leu Pro Ala Asn Gln
    50                  55                  60
Gln Ser Ser Pro Ile Trp Ile Ser Phe Pro Ser Ser Gly Pro Ser Val
65                  70                  75                  80
Pro Leu Arg Thr Ala Gly Ser Ser Gly
                85
```

<210> 39581
<211> 309
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (30)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39581

```
His His Tyr His Phe His Thr Leu Thr Pro Thr Glu Asn Gln Asn Glu
1               5                   10                  15
Gln Gln Asn Ser Ser Gln Glu Gln Ser Val Ser Ser Gly Xaa Arg Pro
            20                  25                  30
Glu Pro Ser Asn Ile Thr Ser Ser Pro Gly Trp Ala Thr Arg Ala Thr
        35                  40                  45
Cys Gly Gly His Asp Pro Asp Ser Pro Pro Pro Leu Asp Pro Ser Lys
    50                  55                  60
Tyr Pro Asn Gly Glu Lys Ser Leu Ala Gly Ile Ser Leu Arg Ala Phe
65                  70                  75                  80
Leu Leu Gly Thr Thr Leu Gly Ile Ser Thr Ser Ile Thr Leu Tyr Leu
                85                  90                  95
Leu Leu Ile Ser Pro His Pro Leu Trp Arg Val Pro Phe Phe Val Ser
            100                 105                 110
Ser Leu Ala Leu Phe His Phe Leu Glu Tyr Trp Val Thr Ala Gln Tyr
        115                 120                 125
Asn Thr Arg Tyr Ala Ser Ile Ser Ala Tyr Leu Leu Ser Ser Asn Gly
    130                 135                 140
Trp Ala Tyr Asn Ala Ala His Ser Ser Ala Val Ala Glu Cys Leu Leu
145                 150                 155                 160
Ser His Thr Phe Gly Pro Arg Asp Gly Tyr Thr Ser Leu Thr Ala Ser
                165                 170                 175
Val Asn Gly Ile Lys Trp Gln Val Val Leu Gly Val Ala Leu Met Val
            180                 185                 190
Cys Gly Gln Thr Ile Arg Thr Leu Ala Met Lys Gln Ala Gly Thr Asn
        195                 200                 205
Phe Asn His Thr Val Gln Val Glu Arg Gln Glu Gly His Thr Leu Val
    210                 215                 220
Arg His Gly Val Tyr Ala Val Leu Arg His Pro Ser Tyr Phe Gly Phe
225                 230                 235                 240
Phe Gly Gly Gly Met Gly Thr Gln Leu Val Leu Gly Asn Val Val Cys
                245                 250                 255
Phe Ile Gly Tyr Ala Ala Val Leu Trp Asn Phe Phe Tyr Asn Arg Ile
```

```
            260                 265                 270
Lys Arg Glu Cys Phe Leu Pro Ser Val Ala Asp Cys Trp Arg Thr Gly
        275                 280                 285
Leu Thr Glu Arg Arg Gly Gly Lys Ile Leu Gly Met Phe Leu Trp Arg
    290                 295                 300
Arg Ile Arg Arg Val
305
```

<210> 39582
<211> 160
<212> PRT
<213> A.fumigatus

<400> 39582

```
Pro Gln Pro Ser Thr Leu Arg Cys Gly Ser Ser Met Ser Arg Ile Leu
1               5                   10                  15
Thr Gly Pro Gln Leu Ile Val Asp Ser Ile Val Asp Asp Lys Thr Pro
            20                  25                  30
Leu Pro Pro Pro Lys Lys Asp Pro Ala Glu Asp Asp Ala Leu Leu Ser
        35                  40                  45
Arg Glu Pro Trp Ile Glu Ala Pro Ile Arg Ile Asp Tyr Gly Phe Asn
    50                  55                  60
Val Arg Leu Gly Glu Gly Val Phe Ile Asn Phe Asn Cys Val Ile Ile
65                  70                  75                  80
Asp Thr Cys Leu Val Thr Ile Gly Ala Arg Thr Met Leu Gly Pro Asn
                85                  90                  95
Val Ser Leu Tyr Ser Gly Thr His Pro Leu Asp Pro Ala Val Arg Asn
            100                 105                 110
Gly Thr Glu Gly Pro Glu Leu Gly Lys Glu Ile His Ile Gly Glu Asp
        115                 120                 125
Cys Trp Leu Ala Gly Asn Val Ile Val Leu Pro Gly Val Thr Ile Gly
    130                 135                 140
Lys Gly Val Thr Ile Gly Ala Gly Ser Val Val Thr Lys Val Cys Pro
145                 150                 155                 160
```

<210> 39583
<211> 215
<212> PRT
<213> A.fumigatus

<400> 39583

```
Phe Phe Leu Gly Arg Phe Pro Phe His Ser Leu Trp Tyr Gln Gln Pro
1               5                   10                  15
Asn Arg Ser Phe Leu Leu Leu Phe Pro Arg Gly Ser Cys Pro Phe Trp
            20                  25                  30
Leu Arg Trp Pro Trp Cys His Trp Cys Leu Pro Ile Ile Ser Trp Thr
        35                  40                  45
Ser Leu Leu Ser Met Ala Arg Glu Thr Arg Ser Asn Glu Phe Val Arg
    50                  55                  60
Ser Asn Thr Arg Pro Ala Lys Tyr Asn Pro Thr Lys Trp Lys Asn Ile
65                  70                  75                  80
Arg Asp Asp Met Thr Pro Asp Met Pro Asp Phe Arg Cys Asn Lys Gly
                85                  90                  95
Ala Phe Thr Phe Ala Gly Gln Thr Gly Thr Ala Glu Val Lys Ala Gly
            100                 105                 110
Ser Lys Leu Ala Met Lys Leu Ala Val Gly Ala Thr Met Gln His Pro
```

```
        115                 120                 125
Gly Pro Ala Leu Val Tyr Met Ser Lys Ala Pro Ser Ser Ala Lys Thr
    130                 135                 140
Tyr Glu Gly Asp Gly Asp Trp Phe Lys Ile His Glu Glu Gly Val Cys
145                 150                 155                 160
Asn Lys Asn Ala Asp Phe Thr Lys Asp Ala Trp Cys Thr Trp Asp Lys
                165                 170                 175
Asp Arg Ile Glu Phe Thr Ile Pro Ala Asp Leu Pro Asp Gly Glu Tyr
            180                 185                 190
Leu Ile Arg Pro Glu His Ile Gly Met Arg Phe Phe Phe Pro Leu His
        195                 200                 205
Leu Ser Leu Ser Met Asp Thr
    210                 215
```

<210> 39584
<211> 104
<212> PRT
<213> A.fumigatus

<400> 39584

```
Val Gln Gln Ile His Arg Val Ser Val Ser Thr Ile Arg Phe Phe Tyr
1               5                   10                  15
Pro Gln Cys Ser Ser Phe Phe Trp Ala Gly Ser His Ser Ile Leu Ser
            20                  25                  30
Gly Thr Asn Ser Leu Thr Ala Leu Phe Phe Cys Phe Phe Gln Glu Glu
        35                  40                  45
Ala Val Pro Ser Gly Phe Gly Gly Pro Gly Ala Ile Gly Val Cys Pro
    50                  55                  60
Leu Phe Leu Gly Arg Pro Cys Tyr Arg Trp Gln Gly Arg Pro Glu Ala
65                  70                  75                  80
Thr Ser Ser Phe Ala Pro Thr Pro Ala Arg Pro Ser Thr Thr Arg Pro
                85                  90                  95
Ser Gly Arg Thr Phe Ala Thr Thr
            100
```

<210> 39585
<211> 106
<212> PRT
<213> A.fumigatus

<400> 39585

```
Pro Tyr Ser Ser Cys Ala Gln Val Lys Val Val Gly Gly Gly Thr Gly
1               5                   10                  15
Thr Pro Gly Pro Thr Ile Lys Phe Pro Gly Gly Tyr Lys Lys Asp Asp
            20                  25                  30
Pro Ser Phe Asn Phe Ser Leu Trp Asn Gly Tyr Lys Asp Tyr Pro Met
        35                  40                  45
Pro Gly Pro Thr Val Trp Thr Gly Gly Ser Gly Ser Gly Ser Ser Ser
    50                  55                  60
Tyr Ser Lys Val Ala Asn Val Thr Ser Ser Asp Glu Ser Ser Gln Ser
65                  70                  75                  80
Gly Ala Ser Ser Ser Gln Gly Thr Val Ser Thr Cys Pro Asn Lys Tyr
                85                  90                  95
Asn Arg Arg His Ala Arg Gln Phe Lys Pro
            100                 105
```

<210> 39586
<211> 301
<212> PRT
<213> A.fumigatus

<400> 39586
Asp Ser Gln Leu Pro Cys Glu His His Asn Leu Pro Tyr Cys His Arg
1 5 10 15
Leu Ser Tyr Pro Pro Ile Asn Ile Pro Arg Gly Leu Thr Met Val Pro
20 25 30
Thr Ile Ile Tyr Ser Ala Ile Leu Ala Leu Ser Ala Phe Thr Pro Ser
35 40 45
Val Phe Ala Gln Thr Arg Ser Ser Gly Cys Gly Lys Gln Pro Ser Leu
50 55 60
Ala Asn Gly Val His Asn Ile Asn Gly Arg Glu Tyr Ile Leu Lys Val
65 70 75 80
Pro Asp Asn Tyr Asp Lys Asn Lys Ala His His Leu Val Phe Gly Leu
85 90 95
His Trp Arg Gly Gly Asn Met Trp Asn Ile Val Asp Gly Gln Ser Ile
100 105 110
Gln Pro Trp Tyr Gly Leu Glu Thr Arg Ala Gln Gly Ser Ala Ile Phe
115 120 125
Val Ala Pro Asn Gly Lys Asn Ala Gly Trp Ala Lys Tyr Gly Gly Glu
130 135 140
Asp Ile Ala Phe Ile Asp Ala Ile Ile Lys Gln Val Glu Ser Asp Leu
145 150 155 160
Cys Val Asp Gln Ser Ser Arg Phe Ala Thr Arg Phe Ser Trp Ala Gly
165 170 175
Asp Met Trp Tyr Ser Leu Ala Cys Trp Arg Ala Lys Gln Phe Lys Ala
180 185 190
Val Ser Val Leu Ser Gly Gly Val Ile Ser Gly Cys Asp Gly Gly Asn
195 200 205
Asp Pro Ile Ala Tyr Leu Gly Ile His Gly Ile Asn Asp Gly Val Leu
210 215 220
Pro Phe Gln Gly Gly Val Asn Val Ala Gln Lys Leu Val Arg Asn Asn
225 230 235 240
Gly Cys Gln Gln Ser Asn Val Gly Thr Pro Gln Pro Gly Ser Arg Gly
245 250 255
Ser Val Arg Thr Asp Phe Lys Gly Cys Ser Lys Pro Val Ser Phe Ile
260 265 270
Ala Tyr Asp Gly Gly His Asp Ala Ala Pro Leu Gly Val Gly Ser Ser
275 280 285
Leu Ala Pro Asp Ala Thr Trp Arg Phe Phe Met Ala Ala
290 295 300

<210> 39587
<211> 233
<212> PRT
<213> A.fumigatus

<400> 39587
Ala Asn Asn Gly Leu Glu Val Ser Cys Asp Ser Phe Pro Ala Asp Asp
1 5 10 15
Gln Thr Asp Pro Asp Ala Tyr Lys Thr Ala Ile Asp Ala Leu Glu Pro
20 25 30
Gly Ser Ala Ile Thr Ile Phe Thr Pro Asp Pro Thr His Phe Pro Ile

```
        35                  40                  45
Ala Leu Tyr Ala Ile Gln Arg Lys Ile His Val Met Ile Thr Lys Pro
    50                  55                  60
Ala Thr Lys Leu Leu Gln Asp His Leu Thr Leu Leu Glu Glu Ser Arg
65                  70                  75                  80
Lys His Gly Val Phe Val Tyr Ile Glu His His Lys Arg Phe Asp Pro
                85                  90                  95
Ala Tyr Ser Asp Ala Arg Ala Lys Ala Lys Asn Leu Gly Asp Phe Asn
            100                 105                 110
Tyr Phe Tyr Ser Tyr Met Ser Gln Pro Lys Ser Gln Leu Glu Thr Phe
        115                 120                 125
Lys Ala Trp Ala Gly Lys Glu Ser Asp Ile Ser Tyr Tyr Leu Asn Ser
    130                 135                 140
His His Ile Asp Ile Asn Glu Ser Met Val Pro Asp Tyr Thr Pro Val
145                 150                 155                 160
Lys Val Thr Ala Ser Ala Ala Lys Gly Thr Ala Val Gly Leu Gly Cys
                165                 170                 175
Ala Pro Glu Thr Glu Asp Thr Ile Thr Leu Leu Val Asn Trp Gln Asn
            180                 185                 190
Lys Gln Asp Pro Ser Lys Val Ala Thr Gly Val Tyr Thr Ala Ser Trp
        195                 200                 205
Thr Ala Pro Gln Lys Ala Gly Val His Ser Asn Gln Tyr Phe His Cys
    210                 215                 220
Arg Val Ile Ser Ser Ser Phe Phe Arg
225                 230
```

<210> 39588
<211> 91
<212> PRT
<213> A.fumigatus

<400> 39588

```
Ser Pro Gly Arg Phe Tyr Met Arg Tyr Ala Pro Asp Glu Glu Gly Asn
1               5                   10                  15
Phe Gly Gly Gln Thr Gly Tyr Gly Tyr Val Ser Phe Glu Lys Phe Ile
            20                  25                  30
Asp Ala Val Thr Ala Leu Asn Glu Gly Arg Val Thr Leu Asp Gln Leu
        35                  40                  45
Asp Ala Arg Pro Leu Pro Thr Leu Lys Asn Thr Ile Ala Thr Thr Ala
    50                  55                  60
Ile Leu His Ala Gly Arg Ile Ser Leu Asp Glu Asn Arg Ala Val Glu
65                  70                  75                  80
Ile Val His Asp Gly Asp Lys Trp Glu Leu Lys
                85                  90
```

<210> 39589
<211> 680
<212> PRT
<213> A.fumigatus

<400> 39589

```
Leu Gln Ala Glu Ala Met Val Met Ala Asp Tyr Asn Asp Glu Asp Gly
1               5                   10                  15
Gly Val Ile Leu Asp Gly Pro Phe Asp Pro Asp Ala Gln Ala Thr Val
            20                  25                  30
Thr Asp Phe Ile Asp Tyr Thr Glu Tyr Leu Pro Ala Asp Leu Ile Arg
```

```
        35                  40                  45
Ser Leu Thr Leu Ile Arg Gly Leu Asp Glu Arg Tyr Leu Glu Ala Thr
    50                  55                  60
Gln Asn Val His Glu Leu Thr Lys Thr Trp Gly Gln Leu Pro Asp Leu
65                  70                  75                  80
Pro Ser His Glu Arg Pro Asp Ala Gln Thr Leu Arg Lys Asn Ile Ser
                85                  90                  95
Ala Gln Leu Asp Gln Ala Ile Asn Ala Arg Glu Cys Ala Tyr Ala Glu
            100                 105                 110
Ala Cys Arg Leu Tyr Asp Val Val Asp Arg His Phe Asn Arg Leu Glu
        115                 120                 125
Cys Ile Lys Gln Lys Leu His Ala Leu Pro Lys Pro Glu Ser Arg Glu
    130                 135                 140
Pro Thr Pro Pro Glu Thr Gln Thr Thr Leu Asn Lys Arg Gly Arg Ser
145                 150                 155                 160
Ser Lys Lys Gly Glu Ala Ala Ala Pro Thr Thr Thr Arg Ile Lys Leu
                165                 170                 175
Arg Leu Asp Gly Ala Ala Asn Ala Gly Thr Arg Pro Glu Gln Arg Ser
            180                 185                 190
Arg Ser Arg Arg Gly Lys Leu Ala Ala Asp His Leu Ala Gly Leu His
        195                 200                 205
Pro Asp Ser Pro Ile Ala Ser Thr Glu His Ser Asp Val Glu Ala Gly
    210                 215                 220
Thr Lys Pro Thr Arg Ser Ala Ala Pro Glu Glu Leu Ala Val Ala Lys
225                 230                 235                 240
Gly Lys Lys Glu Lys Gln Thr Arg Arg Ser Arg Thr Ser Ala Pro Leu
                245                 250                 255
Thr Asn Gly His Gly His Gly Ala Ala Met Ser Thr Ser Asn Ala Leu
            260                 265                 270
Ala Met Leu Lys Pro Pro Pro Glu Asp Ala Lys Pro Gly Ser Glu Asp
        275                 280                 285
Leu Pro Trp Leu Arg Leu Thr Glu Trp Glu Met Thr Lys Leu Arg Lys
    290                 295                 300
Lys Met Lys Lys Asn Ala Val Trp Gln Pro Ser Glu Val Met Ile His
305                 310                 315                 320
Arg Glu Leu Ala Leu Arg Gly Arg Gly Trp Asp Ala Tyr Arg Arg Ala
                325                 330                 335
Lys Ala Glu Ala Glu Ala Asn Gly Thr Glu Phe Leu Asp Cys Asp Asp
            340                 345                 350
Ile Met Asn Asn Tyr Val Pro Gly Met Leu Thr Arg Leu Thr Asp Ala
        355                 360                 365
Asn Gly Ile Glu Gly Val Val Glu Thr Lys Leu Ser Asn Arg Gly Met
    370                 375                 380
Lys Leu Asn Glu Ala Lys Lys Leu Lys Arg Glu Asn Met Ala Arg Glu
385                 390                 395                 400
Gln Ala Ala Ala Ala Ala Ala Ala Ala Ala Glu Ala Lys Arg Leu Ala
                405                 410                 415
Glu Ser Gly Thr Thr Gly Ala Ala Ala Pro Asp Gln Ser Gln Val Glu
            420                 425                 430
Ser Ser Leu Ala Ala Arg Lys Pro Ser Arg Ala Ser Lys Lys Arg Lys
        435                 440                 445
Val Asp Glu Ser Val Ala Ala Gln Ala Ala Pro Ala Pro Pro Val Asp
    450                 455                 460
Ser Glu Thr Arg Gly Ser Leu Arg Ser Ser Ala Lys Arg Arg Lys Met
465                 470                 475                 480
Ser Lys Thr Pro Val Glu Ala Asp Glu Ala Met Val Asp Glu Thr Ala
```

```
                485                 490                 495
Asp Gln Ala Ala Lys Ile Glu Ser Ser Lys Ala Ser Pro Val Pro Ser
            500                 505                 510
Ala Ala Ser Thr Val Ala Ala Ala Gln Thr Lys Glu Ile Lys Thr Ser
        515                 520                 525
Thr Pro Pro Val Ser Arg Pro Pro Ser Arg His Leu Ala Pro Gly Gly
    530                 535                 540
Ala Ser Ala Glu Val Ala Ala Leu Ala Pro Gly Lys Asp Leu Arg Arg
545                 550                 555                 560
Lys Ser Thr Thr Pro Ala Arg Arg Thr Pro Val Pro Glu Gly Ser Gln
                565                 570                 575
Ala Gly Gly Arg Arg Arg Lys Arg Pro Ala Pro Gly Pro Val Ser Ser
            580                 585                 590
Gly Gln Asp Gly Gly Ala Ala Val Ser Tyr Gly Arg Arg Lys Ala Lys
        595                 600                 605
Pro Ala Lys Lys Arg Phe Gly Pro Arg Glu Gln Gly Gln Lys Asp Gly
    610                 615                 620
Thr Thr Arg Glu Asp Ile Arg Ile Asp Glu Asp Gly Val Leu Glu Glu
625                 630                 635                 640
Ile Asp Pro Asn Glu Pro Arg Tyr Cys Leu Cys Gly Asp Val Ser Phe
                645                 650                 655
Gly Thr Met Ile Cys Cys Glu Asn Gln Asp Val Ser Phe Cys Leu Val
            660                 665                 670
Ser Ser Ile Ser Ser Ile His Tyr
        675                 680
```

<210> 39590
<211> 851
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (842)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39590

```
Cys Leu Gly Met Pro Lys Ser Trp Ala Asp Ser Gln Ile Met Cys His
1               5                   10                  15
Leu Ile Val Arg Arg Glu Leu Ile Met Ser Arg Arg Gln Ala Asp Thr
            20                  25                  30
Pro Pro Pro Ser Phe Gly Gln Val Pro Val Ser Ala Arg His Asp Val
        35                  40                  45
Gln Arg Leu Val Arg Val Arg Pro Glu Phe Leu Gly Pro Gly Val Asp
    50                  55                  60
Asp Cys Phe Ser Pro Gly Pro Phe Phe His His Met Val Asp Phe Asp
65                  70                  75                  80
Arg His Gly Arg Pro Val Glu Asp Val Val Val Glu Val Gly Thr Arg
                85                  90                  95
His Asp Arg Val Arg Ala Gln Val Gln Val Leu Leu Arg Arg Gly Gln
            100                 105                 110
Ile Ala Pro Val Pro Ala Ala Pro Val Arg Gly Gln Arg Leu Val Ala
        115                 120                 125
Ala Gln Gln Pro Leu Val His Pro Ala Asp Asp Asp Ala Val Lys Val
    130                 135                 140
Asp Ala Val Leu Pro Arg Leu Pro Asp Gln Arg Ala Gly Pro Arg Gly
```

```
145                 150                 155                 160
Arg Asp Gly Lys Pro Leu Gly Gly Glu Ala Gln Glu Ala Gly Asp Gly
                165                 170                 175
Val Gly Ala Glu Thr Val Ala Val Glu Glu Arg Ile Val Met His Lys
            180                 185                 190
Ala Gly Val Leu Gly Leu Gly Gln Asp Ala Glu Glu Val Met Leu Asp
        195                 200                 205
His Gly Arg Arg Leu Asp Leu Leu Pro Val Glu Arg Gly Glu Asp Gly
    210                 215                 220
Arg Val Glu Leu Val Val Val Gln Pro Ala Ser Leu Val Asp Val Gly
225                 230                 235                 240
Ala Leu His Glu Gly Arg Leu Gly Asp Leu Gly Val Arg Asp Pro Ala
                245                 250                 255
Leu Asp Leu Leu Gly Met Pro His Gly Arg Arg Thr Pro Gly Asp Gly
            260                 265                 270
Ala Gly Asn Val Arg Glu His Lys Leu Gly Ala Lys Gln Phe Val Ala
        275                 280                 285
Glu Pro Gly Val Leu Pro Val Val Val Leu Glu Pro Asp Gln Val Ala
    290                 295                 300
Ile Phe His Val Gly Thr Gly Leu Asp Glu Thr Leu Ala Val Ile Leu
305                 310                 315                 320
Asp Ala Leu Gln Met Ala Val Ala Ala Asp Ala Pro Pro Ala Gln Gly
                325                 330                 335
Asp Ala Gly Ile Gly Ala Ala Gly Gln Pro Glu Ala Leu Leu Val Arg
            340                 345                 350
Arg Ala Val Val Ile Val Glu Leu Val Asp Gly Leu Ala Val Phe Glu
        355                 360                 365
Leu Leu Pro Asp Glu Gln Gln His Val Leu Gly Val Arg Ala Asp Val
    370                 375                 380
Leu Glu Arg Leu Gly Ala Leu Gly Leu Gly Leu Val Leu Ala Ala Val
385                 390                 395                 400
Val Val Asp Leu Glu Ala Ala Val Leu Val Val Val Leu Glu Arg Arg
                405                 410                 415
Lys Gly Ala Val Glu Ala Leu Gln His Glu Ser Ala Leu Leu Asp Ala
            420                 425                 430
Asp Gly His Ala Leu Gly Leu Val Pro Glu Thr Leu Asp Val Val Pro
        435                 440                 445
Ala Met Glu Glu Glu Glu Arg Gln Asp His Ile Leu His Asp Leu Arg
    450                 455                 460
Val Arg Pro Asp Gln Val Glu Glu Glu His Thr Arg His Ala Asp Asp
465                 470                 475                 480
Ala Gly Ala Leu Phe His His Met Val Glu Phe Ser Leu Glu Phe Arg
                485                 490                 495
Ile Gly Asn Gln Gly Asp Asp Asp Glu Leu Asp Gly Gly Arg His Arg
            500                 505                 510
Val Pro Glu Val Val Gln Gly Ile Leu Asp Glu Arg Glu Arg Arg Gly
        515                 520                 525
Gln Leu Phe Gly His Ile Gly Asn Glu Gln Arg Arg Leu Gly Val Leu
    530                 535                 540
Ala Gln Gly Leu Phe Ala Gly Ala Val Val Gly Val Ile Gln Asn Ala
545                 550                 555                 560
Asp Cys Gly Gly Gly Ala Gln Val Ala Ser Gly Asn Met Asp Ile Gln
                565                 570                 575
Ile Thr Gly Ile Lys Ala Ala Glu Val Leu Leu Lys Pro Leu Pro Val
            580                 585                 590
Ala Leu Arg Glu Val Arg Arg Leu Ala Asp Thr Thr Val Gln Gln Arg
```

595 600 605
Leu Pro Asp Arg Leu Gly Gln Leu Leu Pro Met Arg Val Thr Phe Glu
610 615 620
Pro Gln Thr Gln Leu Pro Glu Glu Leu Leu Leu Gly Pro Pro His Asp
625 630 635 640
Tyr Arg Gly Val Gly Phe Phe Ala Lys Leu Pro Gly His Gly Leu Gly
645 650 655
His Ala Gly Arg Asp Glu Arg Phe Arg Glu His Gly Val Leu Val Arg
660 665 670
His Pro Gln His Gly Leu Gly His Arg Met Lys Gln Ser Leu Gly Asp
675 680 685
Asp Leu Ala Val Ala Ala His Val Asp Ala Leu Val Gln Ser Ala Ser
690 695 700
Asp Arg Gln Asp Gln Phe Gln Leu Val Arg Gly Met Ala Ala Lys Ser
705 710 715 720
Ala Asp Ala Gly Thr Gln Arg Ala Gln Gly Asn Glu Leu Asp Arg Asn
725 730 735
Leu Pro Leu Gly Pro Gly Leu Gln Gly Ser Val Asn Gln Leu Gly Cys
740 745 750
Leu Gly Glu Ser Leu Leu Asp Ser Arg Phe Phe Ala Ala Arg Glu Gln
755 760 765
Gln Arg Leu Asp Phe His Pro Arg Met Arg Thr Arg Leu Gln Leu Glu
770 775 780
Ser Arg Val Gly Arg His Gln Arg Asp Ser Leu Glu Glu Gly Leu Gln
785 790 795 800
Leu Leu Leu Gly Pro Phe Gly Ile Arg Pro Arg Gly Arg Val Arg Val
805 810 815
Glu Arg Leu Ala Gln Val Asp Gly Arg Val His Leu Leu Arg His Ser
820 825 830
His Phe Arg Arg Asp Gln Ser Asp Ile Xaa Thr Pro Ala Trp Lys Val
835 840 845
Ala Asp Cys
850

<210> 39591
<211> 166
<212> PRT
<213> A.fumigatus

<400> 39591
Leu Val Glu Ser Ile Leu Thr Asp Ser Asp Ser Ile Tyr Thr Glu Arg
1 5 10 15
Tyr Met His Thr Pro Gln His Asn Pro Asn Gly Tyr Asp Asn Ser Thr
20 25 30
Ile Thr Asp Met Ala Ala Leu Ser Glu Ser Val Arg Phe Leu Val Met
35 40 45
His Gly Ala Ser Asp Asp Asn Val His Leu Gln Asn Thr Leu Val Leu
50 55 60
Ile Asp Lys Leu Asp Leu Ser Asn Val Glu Asn Tyr Asp Val Gln Phe
65 70 75 80
Tyr Pro Asp Ser Asp His Ser Ile Tyr Phe His Asn Ala His Met Met
85 90 95
Val Tyr His Arg Met Ser Pro Pro Ser Leu Leu Leu Phe Arg Asn Thr
100 105 110
Asn Gln Thr Arg Ser Phe Gly Leu Ala Arg Gln Cys Ile Gln Arg Gly
115 120 125

```
Val Ala Ser Asp Ser Glu Ala Arg Ala Gly Arg Val Asn Val Gly Ala
    130                 135                 140
Tyr Glu Ala Val Ala Ala Val Ile Val Ser Leu Ala Ser Arg Tyr Ser
145                 150                 155                 160
Cys Ser Ile Leu Met Leu
                165
```

<210> 39592
<211> 139
<212> PRT
<213> A.fumigatus

<400> 39592

```
Arg Ser Gln Lys Ile Pro Val Leu Phe Tyr Leu Tyr Gly Gly Pro Gly
1               5                   10                  15
Ser Gln Thr Val Asp Arg Lys Phe Thr Val Asp Phe Gln Ser Tyr Val
            20                  25                  30
Ala Ser Ser Leu Gly Tyr Ile Val Val Thr Val Asp Gly Arg Gly Thr
        35                  40                  45
Gly Phe Ile Gly Arg Lys Ala Arg Cys Ile Val Arg Gly Asn Leu Gly
    50                  55                  60
Phe Tyr Glu Ala His Asp Gln Ile Ala Thr Ala Lys Met Trp Ala Ala
65                  70                  75                  80
Lys Ser Tyr Val Asp Glu Thr Arg Met Ala Ile Trp Gly Trp Ser Phe
                85                  90                  95
Gly Gly Phe Met Thr Leu Lys Thr Leu Glu Gln Asp Ala Gly Arg Thr
            100                 105                 110
Phe Gln Tyr Gly Met Ala Val Ala Pro Val Thr Asp Trp Arg Phe Tyr
        115                 120                 125
Gly Met Thr Ser Pro Ser Ser Pro Ser Asp Ser
    130                 135
```

<210> 39593
<211> 665
<212> PRT
<213> A.fumigatus

<400> 39593

```
Glu Gly Leu Pro Arg Arg Glu Asp Arg Gln Gly Cys Val Ala Arg Gln
1               5                   10                  15
Ala His Glu Gly Val Arg Val Gly Arg Gly Gly Glu Val Thr Glu Gly
            20                  25                  30
Gly Ala Asp Gly Arg Gly Pro Gly Gln Arg Glu His Gly Val Pro Gly
        35                  40                  45
Asp Gly Gly Val Asp Gly Gly His Ala Arg Gly Gly Gly Arg Ala Pro
    50                  55                  60
Gly Val His Gly Gly Leu Arg Asp Gly Asp Asp Phe Phe Leu Asp Gly
65                  70                  75                  80
Val Cys Asp Leu Glu Gly Val Gly Asp Val Asp Gly Val Pro Glu Gly
                85                  90                  95
Gly Ala Gly Gly Ala Gly Gly Gly Ala Asp Gly His Gly Leu Asp Gly
            100                 105                 110
Leu Ala Asp Pro Glu His Leu Leu Val Phe Ala Gln Val Ala Val Ala
        115                 120                 125
Gly Glu Gly Leu Leu Asp Asp Val Ala Gly His His Ala Lys Phe Ala
    130                 135                 140
```

```
Ala Val Leu Gly Leu Leu Val His Ala Ala Gly Asp Leu Gly Asp Val
145                 150                 155                 160
Val Arg Gly Gly Arg Gly Gly Glu Asp Gly Gly Gly Leu Gly Val Val
                165                 170                 175
Gly Val Leu Gly Pro Phe Ala Glu Glu Gly Glu His Gly Asp Leu Gly
            180                 185                 190
Ala Gly Glu Arg Glu Gly Val Val Gly Gly Asp Asp Arg Ala Glu Ala
        195                 200                 205
Gly Glu Val Val Arg Val Ala Glu Asp Ala Gln Gly Gly Thr Asp Val
    210                 215                 220
Gly Ala Asp Asp Gly Arg Ala Gly Glu Gly Gly Phe Ala Glu Gly Glu
225                 230                 235                 240
Arg Glu Pro Phe Gly Glu Gly Gly Val Glu Glu Glu Pro Gly Val Phe
                245                 250                 255
Glu Asp Leu His Gly Val Gly Ala Ala Ala Glu Gly Asp Ala Ala Ala
            260                 265                 270
Glu Ala Leu Gly Gly Asp Asp Leu Leu Ala Leu Gly Gly Val Gly Arg
        275                 280                 285
Gly Leu Val Asp Gly Ala Val Asp Val Glu Met Val Val Val Glu Leu
    290                 295                 300
Pro Leu Val Asp Asp Asp Val Gly Gly Gln Gln Gly Gly Leu Asp Val
305                 310                 315                 320
Leu Gly Val Pro Asp Val Arg Gln His Gly Asp Gly Gly Pro Leu Arg
                325                 330                 335
Leu Asp Leu Leu Asp Gly Gly Glu Leu Leu His Val Arg Asp Ala Val
            340                 345                 350
Asp Asp Gly Val Asp Leu Ala Ala Glu Asp Val Ala Val Leu Asp Gly
        355                 360                 365
Ala Leu Ala Gly Ala Asp Leu His Leu Pro Ala Gly Ile Glu Glu Val
    370                 375                 380
Gly Thr Arg Arg Asp Asp Val Gly Met Val Glu Gly Asp Asp Gly Gly
385                 390                 395                 400
Asp Ala His Gln Ala Gln Glu Gly Val Ala Asp Lys Arg Arg Glu Leu
                405                 410                 415
Ala Gln Gly Arg Gly Glu Ala Glu Val Gly Phe Ala Pro Ala Asp Gly
            420                 425                 430
Val Val Pro Asp Leu Gln Gly Ala Val Pro Leu Asp Leu Ala Asp Asp
        435                 440                 445
Pro Val Arg Gly Ala Asp Ala Val Met Arg Arg Leu Glu His Ala Gly
    450                 455                 460
Asp Leu Leu Gly Asp Gly Asp Arg Glu Asp Glu Gln Val Ala Val Pro
465                 470                 475                 480
Glu Leu Gln Arg His Val Glu Arg Pro Gln Gly Gly Glu Leu Gly Val
                485                 490                 495
Glu Pro Leu Arg Arg Arg Asp Arg Val Gly His Leu Leu Arg Glu Pro
            500                 505                 510
Glu Val Ala Pro Ala Leu Leu Asp Asp Val Ala Ile Pro Asp Leu Arg
        515                 520                 525
Pro Val Pro Arg Val Leu Glu Val Arg Val Glu Val Asp Gln Arg Pro
    530                 535                 540
Arg Gly Leu Val Asp Ile Gly Leu Gly Gln Leu Asp Gly Ala Arg Ala
545                 550                 555                 560
Phe His Gln Arg Cys Gln Asp Arg Asp Glu Val His Leu Asp Val His
                565                 570                 575
Val Val Gly Arg Arg Asp Val Leu His Leu Arg Val Gln Leu Val Leu
            580                 585                 590
```

```
Glu Glu Pro Met Arg Arg Arg Gln Lys Val Gln Pro Pro Gln Arg Asp
        595                 600                 605
His Leu Gln Arg Glu His Val Leu Leu Arg Leu Met Leu Gly Asn Ala
    610                 615                 620
Lys Val Val Gly Arg Leu Ala Asp His Val Pro Leu Asp Arg Pro Gln
625                 630                 635                 640
Gly Val Asp His Val Ala Ser Thr Gly Arg His Thr Ser Ala Leu Val
                645                 650                 655
Arg Pro Gly Ala Arg Val Gly Pro Pro
            660                 665
```

<210> 39594
<211> 937
<212> PRT
<213> A.fumigatus

<400> 39594

```
Asn Ile Thr Leu Val Pro Ala Lys Met Gly Met Pro Lys Lys Val Asp
1               5                   10                  15
Ser Pro Val Asp Leu Gly Lys Thr Phe His Ala Tyr Thr Thr Pro Trp
            20                  25                  30
Ala Asp Pro Glu Trp Ser Gln Gln Glu Leu Gln Thr Phe Phe Glu Arg
        35                  40                  45
Ile Ser Leu Val Pro Ser Asp Thr Arg Leu Lys Leu Glu Pro Gly Ala
    50                  55                  60
His Pro Gly Met Glu Val Lys Ser Leu Leu Leu Ser Arg Arg Glu Glu
65                  70                  75                  80
Pro Arg Ile Glu Glu Ala Phe Pro Lys Ala Ser Glu Leu Ile His Arg
                85                  90                  95
Ala Leu Gln Ala Trp Ala Gln Gly Glu Ile Ser Ile Glu Leu Val Pro
            100                 105                 110
Leu Gly Ser Leu Gly Pro Gly Ile Arg Ala Leu Ser Cys His Ala Ala
        115                 120                 125
Asp Gln Leu Lys Leu Val Leu Ala Val Gly Arg Gly Leu Asp Gln Arg
    130                 135                 140
Ile Asp Val Ser Gly Asn Cys Gln Val Ile Ala Glu Thr Leu Leu His
145                 150                 155                 160
Ala Val Ser Glu Ser Met Leu Arg Met Pro His Glu Tyr Ala Val Leu
                165                 170                 175
Ala Glu Ser Leu Val Thr Ala Gly Val Thr Glu Thr Met Ala Arg Gln
            180                 185                 190
Leu Arg Glu Glu Pro Asn Thr Pro Val Val Val Arg Trp Ala Lys Lys
        195                 200                 205
Glu Leu Leu Arg Glu Leu Cys Leu Gly Phe Glu Cys Asp Thr His Trp
    210                 215                 220
Glu Lys Leu Pro Lys Thr Ile Arg Lys Ala Leu Leu Asp Arg Cys Val
225                 230                 235                 240
Gly Lys Pro Ser His Phe Ser Glu Arg Asp Arg Gln Trp Leu Gln Glu
                245                 250                 255
His Leu Cys Arg Phe Asp Thr Ser Asp Leu Asp Val His Val Ala Arg
            260                 265                 270
Cys Asn Leu Gly Ala Ala Thr Ala Val Ser Ile Leu Asp Tyr Ala His
        275                 280                 285
Tyr Gly Thr Gly Glu Glu Ala Leu Gly Lys Asp Ser Glu Thr Pro Leu
    290                 295                 300
Phe Ile Pro Tyr Val Ser Lys Lys Leu Pro Ala Ala Leu Ala Phe Val
```

```
305                 310                 315                 320
Lys Asp Pro Leu His Asn Phe Trp Tyr Ser Val Ala Ser Ala Ile Lys
                325                 330                 335
Phe Ile Ile Ile Ala Leu Ile Ala Asp Pro Glu Phe Gln Arg Glu Phe
            340                 345                 350
Asp His Val Met Lys Gln Arg Ala Arg Ile Ile Arg Val Pro Cys Val
        355                 360                 365
Phe Leu Leu Asn Leu Ile Trp Ser Tyr Ser Lys Ile Val Gln Asp Val
    370                 375                 380
Ile Leu Ser Phe Phe Leu Phe His Gly Arg Asp Asn Val Lys Arg Leu
385                 390                 395                 400
Trp Asp Glu Thr Lys Gly Met Thr Ile Ser Ile Lys Lys Ser Arg Phe
                405                 410                 415
Met Leu Gln Ser Leu Asp Gly Thr Phe Thr Ala Phe Lys His Asp Asp
            420                 425                 430
Glu Asp Gly Gly Phe Lys Val Tyr Tyr Tyr Ser Gly Glu His Lys Thr
        435                 440                 445
Glu Pro Glu Gly Thr Lys Ser Leu Lys Tyr Val Ser Thr Tyr Ser Lys
    450                 455                 460
Asp Met Leu Leu Leu Ile Arg Gln Glu Phe Lys Asp Gly Lys Ala Ile
465                 470                 475                 480
Asn Glu Phe His Tyr Asp Tyr Arg Ala Pro Asn Lys Lys Ser Leu Arg
                485                 490                 495
Leu Thr Arg Gly Ser Asp Thr Arg Ile Pro Leu Gly Arg Arg Cys Ile
            500                 505                 510
Arg Gly Asp Ser His Leu Gln Ser Val Gln Tyr Asn Arg Lys Gly Leu
        515                 520                 525
Ile Glu Ala Gly Ser Tyr Met Lys Asp Gly Asn Leu Ile Arg Phe Lys
    530                 535                 540
Tyr His Tyr Arg Lys Asn Pro Arg Phe Gly Asp Glu Leu Leu Arg Ala
545                 550                 555                 560
Glu Phe Val Leu Ser His Ile Thr Cys Thr Val Ser Trp Cys Ala Pro
                565                 570                 575
Pro Val Arg His Pro Glu Lys Val Glu Arg Trp Ile Pro His Ser Lys
            580                 585                 590
Val Thr Glu Ala Thr Phe Val Gln Gly Ala Asp Val Tyr Glu Ala Arg
        595                 600                 605
Trp Leu Tyr Asp His Lys Phe His Pro Thr Ile Phe Thr Thr Leu Asn
    610                 615                 620
Gly Gln Lys Ile Gln Thr Pro Pro Met Ile Glu His Asp Phe Leu Gly
625                 630                 635                 640
Val Leu Ala Lys Pro Lys Tyr Thr Ser Phe Val His Asp Asn Pro Leu
                645                 650                 655
Phe Tyr Cys Asp Ser Leu Ser Ser Asn Ala Ile Thr Arg Phe Leu Gly
            660                 665                 670
Leu Ser Thr Lys Arg Phe Pro Val Ser Thr Ser Arg Ala Arg Ser Leu
        675                 680                 685
Val Trp Lys Ala Trp Lys Asp Arg Val Asp Phe Asp Gly Ile Ile Val
    690                 695                 700
Arg Trp Met Asp Glu Arg Leu Leu Arg Arg Asp Lys Thr Leu Ala Pro
705                 710                 715                 720
Tyr Trp Arg Ser Arg Asp Arg Gly Asp Leu Ala Ser Ala Lys Lys Tyr
                725                 730                 735
Leu Asp Leu Arg Ala Asp Thr Val Met Ala Ser Ala Asp Leu Asp Asp
            740                 745                 750
Asn Ile Phe Asn Trp Thr Pro Met Ala Ile Lys Val Asn His Met Val
```

```
        755                 760                 765
Lys Lys Gly Pro Gly Gly Glu Ala Val Val Asn Thr Arg Ser Lys Glu
    770                 775                 780
Phe Gly Ser Asp Thr Asp Lys Ser Leu His Val Met Ala Gly Arg His
785                 790                 795                 800
Gly His Leu Ala Glu Arg Gly Arg Arg Cys Val Gly Leu Ser Thr Arg
                805                 810                 815
His Asp Gln Leu Pro Ala Asp Asp Gln Val Ala His Asp Leu Arg Val
            820                 825                 830
Gly Pro Arg Leu Trp His Ser Gln Ala Ser Asp Gly Ala Glu Arg Ala
        835                 840                 845
Leu Val Glu Asp Asp Pro Ala Val Gly Ala Gly Leu Phe Asp Ala Asp
    850                 855                 860
Ala Trp Ala Leu Gln Glu Gln Ala Gly Leu Gly Gly Gly Glu Arg His
865                 870                 875                 880
Val Gly Gln Arg His Gly His Gln Asp Glu Leu His Pro Asp Pro Asp
                885                 890                 895
Ser Ala Gly Glu Arg Arg Ala Arg His Arg Ala Val Gln Gly Arg Tyr
            900                 905                 910
Pro Pro Gly His Ala Gly Ala Gly Gln Pro Gln His Val Leu Pro Gly
        915                 920                 925
Leu Ala Ala Leu Asp Ala Gly Leu Glu
    930                 935
```

<210> 39595
<211> 493
<212> PRT
<213> A.fumigatus

<400> 39595

```
Arg His Arg Gln Gly Glu Leu Ala Arg Pro Leu Ala His Ala Gly Asp
1               5                   10                  15
Ala Gln His Asp Pro Val Gly Ala Val Val Pro His Arg Ala Pro His
            20                  25                  30
Pro Gly Asp Ala Arg Arg Gly Ala Gly Ala Leu Val Pro Leu Pro Val
        35                  40                  45
His Leu Leu Asp Pro His Pro Arg Ala Asp Pro Gln Arg Val Pro Gly
    50                  55                  60
Val Ala Ser Gln Arg Gln Arg Leu Val Arg Gly Arg Leu Gln Asp Gln
65                  70                  75                  80
Ala Glu Leu His Pro Ala Asp Leu Gly Pro Arg His Gln Leu Ala Arg
                85                  90                  95
Asn Gln Pro Leu Pro Leu Leu Gly Pro Val Gln Ala Leu Ala Val Cys
            100                 105                 110
Pro Gln Arg Pro Pro Gly Pro Asp Ala His His Leu Arg His His Pro
        115                 120                 125
Pro Pro Cys Arg His His Leu Ala Val Cys Arg Leu Leu Gln Ser Arg
    130                 135                 140
Leu Gly Gly Gly Asp Arg His Leu Pro Gly His His Arg Ala Pro Gln
145                 150                 155                 160
His Leu Pro Pro Gln Gly Arg Pro Arg Arg Gln Arg His His Gly His
                165                 170                 175
Ala Lys Val Arg Pro Arg Gln Gly Asp Gln Val Ala Ala Ala His Arg
            180                 185                 190
His His Ala Val Ala Arg Leu Val Arg Gln Gly His Gln Asp Arg Pro
        195                 200                 205
```

```
Ala Gly Arg Arg His His His Gln Pro Val Glu Val Arg Arg Leu Pro
    210                 215                 220
Ser Arg His Leu Arg Arg His Arg Gln Gly Pro Asp Leu Leu His Arg
225                 230                 235                 240
Val Pro Gly Asp His Arg Leu Gln Gly Pro Pro Arg Pro Arg His Pro
                245                 250                 255
Pro Arg Gln Arg Arg Pro His Glu Gly Pro Arg Lys His Leu Ala Leu
            260                 265                 270
Pro Gln Leu Leu Pro Leu Arg Arg Ala Pro Ala Arg Pro Arg Arg Ser
        275                 280                 285
Arg Pro His Arg Arg Ala Arg Arg Leu His Arg Arg Arg Cys Leu Pro
    290                 295                 300
Ala Arg Pro Gln Arg Pro Gly Arg Leu Leu Pro Leu Gln Arg Gly Arg
305                 310                 315                 320
Arg Pro Gln Arg Arg Pro Arg Ala Arg Pro Arg Pro Asp His His Ala
                325                 330                 335
Arg Pro Pro Arg Arg Met Gly Pro Val Arg Arg Arg His Arg Ala Arg
            340                 345                 350
Pro Arg Pro His Leu Leu Ala His Pro Gly Arg Arg Arg Gln Asp His
        355                 360                 365
Pro Pro His Val Arg Glu Gly Arg Ala Pro Pro Gln Thr Trp His Asp
    370                 375                 380
Asp Pro Gln His Arg Pro Glu Val Leu Leu Arg Arg Pro Leu Pro Ala
385                 390                 395                 400
Arg Thr Arg Ala Asp Ala Leu Asp Arg Gln Gly Arg Gln Asp His Gly
                405                 410                 415
Arg Pro Arg Arg Arg Arg Arg Pro Arg Arg Arg Pro Arg Gly Pro His
            420                 425                 430
Arg His Arg Arg Arg Pro Pro Gly Arg Arg Pro His Arg Gly Arg Ser
        435                 440                 445
His His His Pro Ala Val Arg Arg Ala Leu Leu Ala Leu Val Arg Arg
    450                 455                 460
Leu Gly His Val His Arg Leu Leu His His Leu Arg Val Pro His Ala
465                 470                 475                 480
Pro Ala Asp Pro Ala Arg Val His Pro Leu Leu Leu Gln
                485                 490
```

<210> 39596
<211> 134
<212> PRT
<213> A.fumigatus

<400> 39596

```
Ser Ser Met Thr Ser Ser Ala Ser Trp Pro Ser Pro Ser Thr Pro Ala
1               5                   10                  15
Leu Cys Met Thr Ile Arg Ser Ser Thr Ala Thr Val Ser Ala Pro Thr
            20                  25                  30
Pro Ser Pro Ala Ser Trp Ala Ser Pro Pro Ser Gly Phe Pro Ser Arg
        35                  40                  45
Pro Arg Gly Pro Ala Arg Trp Ser Gly Arg Arg Gly Arg Thr Ala Ser
    50                  55                  60
Thr Leu Thr Ala Ser Ser Ser Ala Gly Trp Thr Ser Gly Cys Cys Ala
65                  70                  75                  80
Ala Thr Arg Arg Trp Pro Arg Thr Gly Ala Ala Gly Thr Gly Ala Ile
                85                  90                  95
Trp Pro Arg Arg Arg Ser Thr Trp Thr Cys Ala Arg Thr Arg Ser Trp
```

```
            100                 105                 110
Arg Val Pro Thr Ser Thr Thr Thr Ser Ser Thr Gly Arg Pro Trp Arg
        115                 120                 125
Ser Lys Ser Thr Ile Trp
    130
```

<210> 39597
<211> 776
<212> PRT
<213> A.fumigatus

<400> 39597

```
Lys Lys Gly Pro Gly Glu Lys Gln Ser Ser Thr Pro Gly Pro Arg Asn
1               5                  10                  15
Ser Gly Arg Thr Arg Thr Ser Arg Cys Thr Ser Trp Arg Ala Asp Thr
            20                  25                  30
Gly Thr Trp Pro Asn Glu Gly Gly Gly Val Ser Ala Cys Arg Arg Asp
        35                  40                  45
Met Ile Asn Ser Leu Arg Thr Ile Lys Trp His Met Ile Cys Glu Ser
    50                  55                  60
Ala His Asp Phe Gly Ile Pro Lys His Gln Thr Glu Gln Asn Val Leu
65                  70                  75                  80
Ser Leu Lys Met Ile Pro Leu Trp Gly Leu Asp Phe Leu Thr Pro Thr
                85                  90                  95
His Gly Leu Phe Lys Asn Lys Leu Asp Ser Glu Val Glu Asn Val Thr
            100                 105                 110
Ser Ala Asn Asp Met Asp Ile Lys Met Asn Phe Ile Pro Ile Leu Thr
        115                 120                 125
Ala Leu Val Lys Gly Ala Arg Ala Ile Glu Leu Ser Lys Ala Asp Ile
    130                 135                 140
His Gln Ala Thr Arg Ala Leu Val Asn Leu Asn Thr Tyr Phe Gln Asp
145                 150                 155                 160
Ser Arg His Trp Thr Gln Val Trp Asn Ser Asp Ile Val Lys Glu Ser
                165                 170                 175
Trp Arg Asp Leu Trp Leu Thr Gln Glu Met Pro Asn Thr Ile Pro Ser
            180                 185                 190
Ala Gln Trp Phe His Thr Glu Leu Pro Thr Leu Gly Thr Leu Asp Val
        195                 200                 205
Ala Leu Glu Leu Trp Tyr Arg Tyr Leu Phe Ile Phe Ser Ile Pro Ile
    210                 215                 220
Pro Glu Gln Ile Pro Ser Val Phe Gln Ala Ser His His Ser Val Ser
225                 230                 235                 240
Ala Ser Tyr Gly Val Val Cys Lys Ile Lys Arg Asn Cys Thr Leu Gln
                245                 250                 255
Ile Trp Asp His Ala Ile Ser Trp Arg Glu Thr Asn Leu Cys Leu Ser
            260                 265                 270
Ser Ala Leu Cys Lys Leu Ser Pro Phe Val Arg Asn Ala Leu Leu Gly
        275                 280                 285
Leu Met Arg Ile Thr Ser Val Ile Thr Leu His His Ala Asp Ile Ile
    290                 295                 300
Ser Pro Cys Ala Asp Phe Phe Asn Pro Gly Trp Glu Val Glu Ile Gly
305                 310                 315                 320
Thr Cys Gln Gly Thr Ile Glu His Arg Asn Ile Phe Arg Arg Lys Val
                325                 330                 335
Asp Pro Val Val Asn Gly Ile Thr Asp Met Gln Lys Phe Ala Pro Val
            340                 345                 350
```

```
Lys Glu Ile Lys Ser Gln Arg Pro Thr Val Thr Met Leu Ser His Val
        355                 360                 365
Trp Tyr Ala Lys Asp Ile Lys Thr Ala Leu Leu Ala Ala Asp Ile Ile
    370                 375                 380
Ile Asn Gln Trp Lys Phe Asp Asp Tyr His Leu Asp Ile Tyr Gly Ala
385                 390                 395                 400
Ile Asp Lys Ala Pro Thr Tyr Ser Thr Glu Cys Gln Glu Ile Ile Ala
                405                 410                 415
Ser Lys Gly Leu Arg Gly Arg Val Thr Leu Arg Gly Ser Ala Asp Pro
            420                 425                 430
Met Lys Val Leu Glu Asn Thr Trp Leu Phe Leu Asn Ser Ser Leu Ser
        435                 440                 445
Glu Gly Leu Pro Leu Ala Leu Gly Glu Ala Ala Leu Thr Gly Ala Pro
    450                 455                 460
Val Val Cys Thr Asp Val Gly Ala Ser Leu Arg Val Leu Ser Asp Pro
465                 470                 475                 480
Asp Asp Phe Ser Arg Phe Ser Ala Val Val Ala Pro Asn Asp Ala Leu
                485                 490                 495
Ala Leu Ala Arg Ala Gln Ile Thr Met Leu Ala Leu Leu Gly Glu Trp
            500                 505                 510
Ala Gln Tyr Ala Asp Asp Thr Glu Pro Ala Pro Val Leu Thr Ser Ser
        515                 520                 525
Pro Thr Pro Asp Asp Val Ala Lys Ile Thr Arg Arg Met Tyr Glu Lys
    530                 535                 540
Ala Glu His Arg Arg Lys Leu Gly Met Met Thr Arg Asn Ile Val Gln
545                 550                 555                 560
Lys Ser Phe Ser Gly Asp Arg Tyr Leu Arg Glu His Glu Gln Met Leu
                565                 570                 575
Trp Ile Gly Lys Ala Val Lys Thr Met Ala Val Arg Ala Ala Ala Gly
            580                 585                 590
Ala Pro Gly Ala Ala Leu Gly Asp Pro Ile Asp Ile Ala Asp Ala Leu
        595                 600                 605
Gln Val Ala Asp Pro Ile Glu Glu Glu Val Ile Thr Ile Pro Gln Ser
    610                 615                 620
Ala Val His Ser Trp Arg Ser Ser Ala Ala Ser Gly Met Ser Thr Val
625                 630                 635                 640
Tyr Ser Thr Ile Ser Gly Tyr Pro Met Leu Pro Leu Thr Arg Pro Ala
                645                 650                 655
Ser Ile Arg Ser Ser Phe Ser Asn Phe Ser Thr Ala Thr Asp Ser Asp
            660                 665                 670
Ser Phe Met Gly Leu Pro Ser Asn Ala Ser Leu Pro Val Phe Ala Pro
        675                 680                 685
Arg Gln Thr Leu Ser Phe Asp Ala Gly Gly Ala Val Thr Pro Thr Gly
    690                 695                 700
Arg Leu Ser Pro Ser Gly Arg Leu Ser Pro Ala Phe Gly Arg His Arg
705                 710                 715                 720
His Ser His Ala Arg Ser Ile Ser Thr Leu Gly Arg Glu Gln Leu Arg
                725                 730                 735
Gly Leu Gln Arg Glu Glu Pro His Pro Tyr Arg Asn Ser Asp Val Ser
            740                 745                 750
Leu His Met Arg Glu Glu Phe Leu Gln Ser Ser Ile Phe Lys Ser Ile
        755                 760                 765
Asp Gly Asn Ala Gly Gly Lys Ser
    770                 775
```

<210> 39598

<211> 157
<212> PRT
<213> A.fumigatus

<400> 39598
Lys Ala Arg Ala Pro Ser Ser Cys Pro Arg Pro Ile Ser Thr Arg Pro
1 5 10 15
Arg Gly Arg Trp Ser Thr Ser Thr Arg Thr Ser Arg Thr Arg Gly Thr
20 25 30
Gly Arg Arg Ser Gly Ile Ala Thr Ser Ser Arg Arg Ala Gly Ala Thr
35 40 45
Ser Gly Ser Arg Arg Arg Cys Pro Thr Arg Ser Arg Arg Arg Ser Gly
50 55 60
Ser Thr Pro Ser Ser Pro Pro Trp Gly Arg Ser Thr Trp Arg Trp Ser
65 70 75 80
Ser Gly Thr Ala Thr Cys Ser Ser Ser Arg Ser Pro Ser Pro Ser Arg
85 90 95
Ser Pro Ala Cys Ser Arg Arg Arg Ile Thr Ala Ser Ala Pro Arg Thr
100 105 110
Gly Ser Ser Ala Arg Ser Ser Gly Thr Ala Pro Cys Arg Ser Gly Thr
115 120 125
Thr Pro Ser Ala Gly Ala Lys Pro Thr Ser Ala Ser Pro Arg Pro Cys
130 135 140
Ala Ser Ser Arg Arg Leu Ser Ala Thr Pro Ser Trp Ala
145 150 155

<210> 39599
<211> 143
<212> PRT
<213> A.fumigatus

<400> 39599
Cys Ala Ser Pro Pro Ser Ser Pro Ser Thr Met Pro Thr Ser Ser Arg
1 5 10 15
Arg Val Pro Thr Ser Ser Ile Pro Ala Gly Arg Trp Arg Ser Ala Pro
20 25 30
Ala Arg Ala Pro Ser Ser Thr Ala Thr Ser Ser Ala Ala Arg Ser Thr
35 40 45
Pro Ser Ser Thr Ala Ser Arg Thr Cys Lys Ser Ser Pro Pro Ser Arg
50 55 60
Arg Ser Ser Arg Ser Gly Pro Pro Ser Pro Cys Cys Arg Thr Ser Gly
65 70 75 80
Thr Pro Arg Thr Ser Arg Pro Pro Cys Trp Pro Pro Thr Ser Ser Ser
85 90 95
Thr Ser Gly Ser Ser Thr Thr Thr Ile Ser Thr Ser Thr Ala Pro Ser
100 105 110
Thr Arg Pro Arg Pro Thr Pro Pro Ser Ala Arg Arg Ser Ser Pro Pro
115 120 125
Arg Ala Ser Ala Ala Ala Ser Pro Ser Ala Ala Ala Pro Thr Pro
130 135 140

<210> 39600
<211> 102
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (72),(74),(75),(77),(78)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39600
Val Asn Val Leu Asp Trp Ile Gly Met Val Met Pro Leu Gln Pro Ser
1 5 10 15
Leu Gly Phe Cys Ile Ser Asn Val Thr Lys Gly Pro Cys Leu Leu Leu
20 25 30
His His Ser Ile Lys Leu Asp Tyr Glu Gln Lys Ser Thr Ile Leu Asp
35 40 45
Trp Ile Lys Ile Lys Leu Ser Met Lys Lys Lys Gly Leu Val Cys His
50 55 60
Asn Cys Gln Ala Arg Glu Gly Xaa Thr Xaa Xaa Lys Xaa Xaa Lys Gly
65 70 75 80
Lys Ser Glu Glu Val Ile Ser Thr Lys Thr Ser Cys Leu Asn Ser Leu
85 90 95
Ile Pro Ser Thr Ser Phe
100

<210> 39601
<211> 94
<212> PRT
<213> A.fumigatus

<400> 39601
Asn Val Asp Ser Ile Leu Thr Gln Pro Asn Met Tyr Ala Arg Gly Ile
1 5 10 15
Leu Phe Gly Lys Met Lys Tyr Glu Leu Gly Asp His Ser Tyr Val Arg
20 25 30
Cys Pro Glu Asn Asn Leu Val Ala Asp Ile Glu Phe Lys Thr Lys Gly
35 40 45
Tyr Phe Ser Gly Thr Tyr Asn Ala Ile Gly Gly Thr Ile Lys Asn Glu
50 55 60
Lys Thr Gly Glu Val Tyr Tyr Glu Leu Ser Gly Leu Trp Asn Gly Glu
65 70 75 80
Met Phe Ile Lys Asp Val His Val Trp Cys Pro Ser Val Ser
85 90

<210> 39602
<211> 87
<212> PRT
<213> A.fumigatus

<400> 39602
Ser Ser Phe Leu Glu Ser Phe Met Ala His Pro Glu Thr Leu Leu Pro
1 5 10 15
Met Pro Thr Ile Asn Asp Pro Leu Glu Arg Phe Val Ser Val Val Lys
20 25 30
Phe Tyr Leu Ser Gly Trp His Ile Lys Pro Pro Tyr Val His Ser Thr
35 40 45
Cys Ser His Ser Val Phe Lys Asp Glu Thr Thr Ser Leu Thr Trp Ile
50 55 60
Leu Gln Arg Arg Glu Glu Ala Ala Glu Ser Asp Ser Arg Arg Asp Leu
65 70 75 80

His Leu Leu Leu Gly Leu Pro
85

<210> 39603
<211> 105
<212> PRT
<213> A.fumigatus

<400> 39603
Thr His Lys Lys Asp Ile Leu Phe Asp Ala Thr His Ala Lys His Thr
1 5 10 15
Pro Pro Ser Thr Arg Pro Ile Glu Gln Gln Gly Glu Arg Glu Ser Gln
20 25 30
Arg Leu Trp His Ser Thr Val Lys Ala Leu Leu Ala Arg Asn His Glu
35 40 45
Ala Ala Thr Asp Glu Lys Ser Lys Ile Glu Glu Arg Gln Arg Glu Glu
50 55 60
Ala Ala Lys Arg Ala Asp Glu Gly Val Glu Trp Arg Pro Arg Leu Phe
65 70 75 80
Arg Pro Val His Gly Gly Pro Gly Gly Pro Asp Glu Gly Glu Glu Asp
85 90 95
Leu Asp Trp Ile Ile Ser Ala His Met
100 105

<210> 39604
<211> 70
<212> PRT
<213> A.fumigatus

<400> 39604
Val Thr Ala Arg Pro Phe Arg Pro Val Val Lys Thr Tyr Gly Val Glu
1 5 10 15
Glu Gly Ile Val His Leu Val Val Trp Thr Lys Phe Glu Leu Glu Asp
20 25 30
Asp Pro Ala Thr Asp Asp Leu Thr Pro Gln Ala Arg Lys Glu Ile Asp
35 40 45
Asp Tyr Val Thr Arg Thr Phe Arg Ser Arg Met Pro Ala Glu Gln Val
50 55 60
Cys Cys Ser Asn Cys Pro
65 70

<210> 39605
<211> 97
<212> PRT
<213> A.fumigatus

<400> 39605
Arg Gly Tyr Cys Arg Gly Val Lys Lys Pro Leu Asn Pro Ile Leu Gly
1 5 10 15
Glu Thr Phe Thr Cys Tyr Trp Asp Tyr Pro Asp Gly Thr Arg Gly Tyr
20 25 30
Tyr Ile Ala Glu Gln Thr Ser His His Pro Pro Lys Ser Ser Tyr Phe
35 40 45
Phe Met Ala Pro Glu His His Ile Arg Ile Asp Gly Thr Leu Lys Pro
50 55 60
Arg Ser Lys Phe Leu Gly Asn Ser Ala Ala Ser Met Met Glu Gly Val

65 70 75 80
Ala Ile Leu Arg Phe Leu Asn Arg Gly Gln Asn Pro Glu Lys Gly Glu
85 90 95
Arg

<210> 39606
<211> 182
<212> PRT
<213> A.fumigatus

<400> 39606
Arg Arg Ser Leu Pro Ala Thr Thr Arg Gln Gln Arg Thr Lys Ser Gln
1 5 10 15
Arg Leu Lys Ser Val Asn Val Lys Arg Pro Leu Ser Gly Pro Met Lys
20 25 30
Glu Trp Asn Gly Val Arg Asp Ser Ser Ala Leu Phe Thr Gly Ala Pro
35 40 45
Glu Ala Pro Met Arg Val Arg Arg Thr Trp Thr Gly Ser Ser Ala Arg
50 55 60
Ile Cys Lys Cys Asp Gly Tyr Val Arg Leu Ser Tyr Asn Arg Lys Leu
65 70 75 80
Thr Arg Thr Tyr Ser Asp Ser Gln Asn Pro Glu Leu Ala Ala Lys Gln
85 90 95
Ile Leu Ala Ile Ala Pro Ile Leu Asp Gly Gln Lys Asp Asn Arg Gln
100 105 110
Phe Gln Ile Pro Pro His Val Pro Lys Lys Glu Lys Glu Gly Lys Thr
115 120 125
Ala Pro Ser Ala Ser Asp Pro Val Asp Ala Lys Asn Thr Gly Ser Asp
130 135 140
Thr Gly Ser Gly Ala Ser Glu Ala Pro Gln Pro Ser Ser Glu Gly Asn
145 150 155 160
Asn Ser Val Glu Arg Lys Asp Ser Arg Thr Ser Glu Val Asp Glu Tyr
165 170 175
Val Asp Ala Glu Glu Lys
180

<210> 39607
<211> 137
<212> PRT
<213> A.fumigatus

<400> 39607
Thr Pro Thr Ala Pro Ala Pro Leu Ser Ser Asn Ala Ala Pro Thr Pro
1 5 10 15
Ser Ala Ala Thr Ala Ser Ala Ala Ser Thr Ser Thr Ser Ala Pro Thr
20 25 30
Ala Pro Ala Ser Pro Ser Ser Arg Leu Ser Ala Cys Leu Ser Ser Ser
35 40 45
Ser Ala Val Ala Ala Ile Pro Arg Ala Thr Ser Pro Ala Pro Gly Pro
50 55 60
Thr Lys Pro Pro Ser Ser Leu Met Pro Arg Thr Ser Ser Ile Pro Thr
65 70 75 80
Ser Pro Thr Pro Ser Pro Ser Ala Thr Thr Ser Ala Arg Thr Thr Arg
85 90 95
Ser Ser Pro His Cys Arg Lys Cys Ala Ser Ser Arg Thr Arg Thr Pro

```
            100                 105                 110
Ala Arg Thr Leu Pro Val Leu Ser Ser Pro Ser Val Ser Ser Ser Ala
        115                 120                 125
Ile Ser Arg Gly Pro Leu Val Phe Arg
    130                 135
```

<210> 39608
<211> 122
<212> PRT
<213> A.fumigatus

<400> 39608

```
Val Val Leu Ser Leu Gly Gln Leu His Ile Val Arg Lys Cys Phe Leu
1               5                   10                  15
Leu Met Phe Asp Lys Leu Gly Val Ala Ala Thr Arg Ser Ser Ala Ile
            20                  25                  30
Phe Ser Pro Gln Leu Ser Thr Thr Ser Asp Leu Ser Val Phe Phe Ile
        35                  40                  45
Ser Pro His Ser Ser Asp Ala Ser Ala Leu Arg Ile Gln Pro Leu His
    50                  55                  60
Leu Tyr Cys Val His Leu Glu Ser Gly Leu Ser Gln Tyr Val Leu Asp
65                  70                  75                  80
Ala Tyr Asp Phe Phe Phe Pro Phe Arg Thr Leu Ala Ser Ser Pro Leu
                85                  90                  95
Phe Ile His Pro Phe Ser Ser Pro Asn Pro Ser Gln Pro Val Arg Pro
            100                 105                 110
His Gly Ala Leu Arg His Cys Pro Arg Ile
        115                 120
```

<210> 39609
<211> 508
<212> PRT
<213> A.fumigatus

<400> 39609

```
Pro Leu Leu Leu Phe Leu Ser Ile His Phe Pro Leu Leu Ile Leu Pro
1               5                   10                  15
Asn Arg Ser Asp Leu Met Ala Arg Ser Ala Ile Val Gln Glu Tyr Asn
            20                  25                  30
Pro Pro Pro Pro Ser Asn Pro Thr Leu Ser Val Asp Arg Lys Val Ser
        35                  40                  45
Leu Glu Arg Gln Lys Asn Gly Ile Pro Arg Pro Gln Gly Tyr Arg Val
    50                  55                  60
Ser Trp His Ala Asn Pro Ala Val Glu Pro His His Phe Gly Gln Ser
65                  70                  75                  80
His Pro Met Lys Pro Trp Arg Leu Thr Leu Thr Lys Gln Leu Val Met
                85                  90                  95
Ala Tyr Gly Met His His Ala Met Asp Leu Tyr Leu Ala Arg Ala Ala
            100                 105                 110
Thr Tyr Glu Glu Met Ala Glu Phe His Gln Thr Asp Tyr Leu Asp Phe
        115                 120                 125
Leu Arg Gln Val Met Pro Gly Asp Met Glu Asn Pro Glu Gln Ser Glu
    130                 135                 140
Asn Ile Ala Arg Phe Asn Phe Gly Asp Asp Cys Pro Ile Phe Asn Gly
145                 150                 155                 160
Leu Tyr Asn Tyr Cys Ser Leu Tyr Ala Gly Gly Ser Ile Asp Ala Ala
```

```
                165                 170                 175
Arg Lys Leu Cys Asn Asn Gln Ser Glu Ile Ala Val Asn Trp Ser Gly
            180                 185                 190
Gly Leu His His Ala Lys Lys Ala Glu Ala Ser Gly Phe Cys Tyr Val
        195                 200                 205
Asn Asp Ile Val Leu Gly Ile Leu Gln Leu Leu Arg His His Pro Arg
    210                 215                 220
Val Met Tyr Ile Asp Ile Asp Val His His Gly Asp Gly Val Glu Gln
225                 230                 235                 240
Ala Phe Trp Ser Thr Asp Arg Val Leu Thr Val Ser Phe His Lys Tyr
                245                 250                 255
Asp Lys Asp Asn Phe Phe Pro Gly Thr Gly Pro Leu Asp Ser Thr Gly
            260                 265                 270
Pro Thr His Pro Leu Asn Pro Gly Ala His His Ala Val Asn Val Pro
        275                 280                 285
Leu Asn Asp Gly Ile Asp Asp Glu Ser Tyr Ile Gln Leu Phe Arg Asp
    290                 295                 300
Ile Val Gly Ala Cys Val Asp Thr Tyr Arg Pro Gly Ala Ile Val Leu
305                 310                 315                 320
Gln Cys Gly Ala Asp Ser Leu Gly Cys Asp Arg Leu Gly Cys Phe Asn
                325                 330                 335
Leu Asn Val Gly Ala His Gly Ala Cys Val Ala Phe Val Lys Thr Phe
            340                 345                 350
Gly Leu Pro Leu Leu Val Val Gly Gly Gly Gly Tyr Thr Pro Arg Asn
        355                 360                 365
Val Ser Arg Ala Trp Ala His Glu Thr Ser Ile Leu Ile Asp Ala Gln
    370                 375                 380
Asp Leu Ile Asp Pro Asn Ile Pro Asp Thr Val Ala Phe Arg Asn His
385                 390                 395                 400
Phe Gly Pro Asp Tyr Ser Leu Phe Pro Pro Leu Ser Glu Met Arg Lys
                405                 410                 415
Leu Glu Asn Lys Asn Ser Arg Pro Tyr Leu Ala Gly Leu Val Gln Ser
            420                 425                 430
Val Arg Glu Gln Leu Arg Tyr Ile Gln Gly Ala Pro Ser Val Gln Met
        435                 440                 445
Ser Phe Ile Pro Pro Asp Ile Leu Gly Leu Arg Glu Asp Thr Glu Lys
    450                 455                 460
Glu Ile Glu Glu Ala Thr Ala Arg Leu Glu Glu Glu Arg Glu Glu Arg
465                 470                 475                 480
Glu Gly Pro Gly Ser Ala Ala Val Lys Ser Asn Arg Arg Arg Glu Leu
                485                 490                 495
Glu Arg Gly Ala Gly Tyr Arg Gly Glu Leu Tyr Ser
            500                 505
```

<210> 39610
<211> 61
<212> PRT
<213> A.fumigatus

<400> 39610

```
Met Pro Arg Glu Pro Lys Arg Gly Met Thr Pro Ser Gln Ser Ala Gln
1               5                   10                  15
Ile Thr Thr Pro Gln Ile Asn Thr Ala Phe Ile Pro Gln Val Ile Tyr
            20                  25                  30
Phe Gly Ile Ser Ile Asp Ser Lys Ile Ile Ser Ser Pro Arg Pro Phe
        35                  40                  45
```

```
Arg Ile Pro Thr Gly Gly Asn Pro Ile Thr Leu Trp Ile
    50                  55                  60

<210> 39611
<211> 84
<212> PRT
<213> A.fumigatus

<400> 39611
Gln Gly Gln Gly Gln Arg Pro Ser Val Cys Thr Asp Gln His Ser Ser
1               5                   10                  15
Leu Val Ser Asn Ala Val Leu Ala Tyr Thr Leu Gly Leu Arg His Ala
            20                  25                  30
Phe Asp Ala Asp His Ile Ser Val Arg Pro Lys Gln Ser Val Ala Arg
        35                  40                  45
Gln Leu Ser Asn Ile Ile Gln Ala Ile Asp Leu Met Thr Arg Arg Leu
    50                  55                  60
Leu Ala Thr Gly Gln Gln Pro Val Thr Val Gly Thr Phe Phe Ser Leu
65                  70                  75                  80
Gly His Ser Thr


<210> 39612
<211> 148
<212> PRT
<213> A.fumigatus

<400> 39612
Val Ser Ser Ser Arg Ser Ile Gln Gly Leu Gly Leu Ser Asp Gly Thr
1               5                   10                  15
Ser Ile Val Ile Ile Thr Ser Ile Val Val Ala Ala Thr Ala Ala Ala
            20                  25                  30
Val Ser Ser Arg Phe Asp Ser Phe Ser Thr Val Gly Gly Ile Ile Gly
        35                  40                  45
Thr Ser Val Ser Ala Ala Phe Leu Ile Leu Leu Gly Leu Met Asn Phe
    50                  55                  60
Tyr Ile Leu Tyr Lys Leu Tyr Lys Gln Met Gln Lys Val Leu Ser Leu
65                  70                  75                  80
Pro Glu Gly Gln Glu Asp Glu Ala Trp Lys Ile Glu Gly Gly Gly Val
                85                  90                  95
Leu Phe Asn Val Leu Lys Arg Met Phe Lys Leu Ile Asn Arg Phe Val
            100                 105                 110
Val Pro Arg Ser Gly Val Gln Thr Ile Gln Leu Ile Arg Trp Leu Gly
        115                 120                 125
Leu Gly Arg Cys Thr Pro Trp Val Phe Ser Ser Val Leu Val Ser Thr
    130                 135                 140
His His Pro Arg
145

<210> 39613
<211> 163
<212> PRT
<213> A.fumigatus

<400> 39613
Pro Gly Arg Arg Leu His Leu Pro Gln Ala Asp Ser Arg Pro Val Ala
```

```
1               5                   10                  15
Arg Ala Asn Arg Thr Thr Ala His Pro Ala Arg Ala Thr Gly Pro Ser
            20                  25                  30
Tyr Thr Gly Lys Arg Arg Pro Ser Thr Thr Lys Arg Ser Pro Tyr Leu
        35                  40                  45
Pro Arg Arg Thr Gly Ser Arg Ala Thr Ser Cys Thr Pro Ala Cys Gly
    50                  55                  60
Pro His Arg Ser Thr Arg Pro Thr Arg Arg Ser Ser Thr Ser Trp Ser
65                  70                  75                  80
Lys Ser Ala Arg Pro Ala Ser Ser Arg Ser Thr Arg Ser Ala Ser Ala
                85                  90                  95
Pro Thr Ala Pro Leu Ser Pro Arg Trp Pro Pro Thr His Thr Arg Phe
            100                 105                 110
Asp Gly Pro Pro Arg Ser Ser Pro Ser Pro Ala Ala Thr Pro Arg Ser
        115                 120                 125
Pro Pro Ser Ser Pro Asn Ser Lys Pro Ala Ser Thr Val Arg Ser Pro
    130                 135                 140
Pro Pro Thr Pro Ser Thr Pro Thr Pro Ser Ser Lys Pro Ser Thr Ser
145                 150                 155                 160
Ser Gly Thr
```

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<210> 39614
<211> 320
<212> PRT
<213> A.fumigatus

<400> 39614

```
Thr Ala Ile Met Gly Val Leu Arg Leu Pro Arg Pro Thr Gly Ile Tyr
1               5                   10                  15
Val Pro Asn Ser Pro Thr Arg Ser Leu Thr Thr Asp Met Ile Ser Ser
            20                  25                  30
Pro Leu Ser Pro Gly Phe Asn Phe Asp Cys Glu Thr Val Thr Pro Ser
        35                  40                  45
Ile Ile Pro Ala Leu Asp Tyr Ile Ser Ser Lys Leu Gln Gln Lys Met
    50                  55                  60
Met His Val Thr Leu Leu Val Gly Arg Gly Lys Pro Tyr Pro Thr Gly
65                  70                  75                  80
Gln Pro Ser Asp Leu Met Val Ile Pro Ile Ala Gln Leu Asp Pro Gln
                85                  90                  95
Ser Trp Arg Thr Ile Cys Arg Ile Val Ala Lys Gly Ala Lys Lys Phe
            100                 105                 110
Ser Leu Gly Gln Ser Trp Thr Asp Ala Leu Ala Arg Ser Gln Tyr Glu
        115                 120                 125
Arg Gln Ala Asn Glu Tyr Leu Ile Gln Gln Ser Ile Leu Gln Asn Glu
    130                 135                 140
Val Val Phe Ser Arg Glu Gly Leu Thr Leu Leu Ser Val Asp Arg Ile
145                 150                 155                 160
Tyr Thr Phe Lys Arg Arg Leu Cys Ile Leu Ser Asn Arg Asp Asn Gly
                165                 170                 175
Ile Glu Glu Pro Tyr Ile Ser Ser Cys Val His Leu Leu His Arg Thr
            180                 185                 190
Ile Arg Asp Phe Gln Gly Arg Pro Phe Ser Lys Ala Phe Phe His Arg
        195                 200                 205
Val Tyr Glu Gln Leu Asp Val Arg Asp Asp Leu Leu Thr Arg Val Ala
    210                 215                 220
```

```
His Ala Tyr Lys Lys Glu Tyr Asn Gln Glu Gly Ile Val Leu Pro Pro
225                 230                 235                 240
Arg Pro Arg Pro Glu Tyr Ser Arg Lys Ser Pro Ile Arg Pro Val Arg
                245                 250                 255
Pro Arg Arg Gln Pro Thr Pro Pro Thr Cys Arg Pro Ala Ser Ala Lys
            260                 265                 270
Lys Gly Pro Lys Thr Pro Leu Ser Ala Ser Asp Val Thr Pro Ile Thr
        275                 280                 285
Arg Ser Glu Trp Asn Met Phe Val Gly Ala Gly Ile Arg Pro Ile Asn
    290                 295                 300
Pro Thr Val Thr Lys Trp Thr Pro Ser Pro Thr Val Leu Ala Ala Ala
305                 310                 315                 320
```

<210> 39615
<211> 198
<212> PRT
<213> A.fumigatus

<400> 39615

```
Glu Leu Ser Ala Gly Met Cys Leu Leu Asp Thr Thr Asp Gly Ala Leu
1               5                   10                  15
Met Leu Ser Leu Tyr Ile Gln Pro Ala Ala Asn Phe Leu Pro Ala Lys
            20                  25                  30
Arg Asp Ser Thr Ser Ser Glu Thr Pro Leu Ile Leu Gly Glu Asp His
        35                  40                  45
Glu Ile Glu Pro Ser Gln Asn His Arg Asp Pro Val Ala Phe Leu Tyr
    50                  55                  60
Tyr Ser Ile Val Leu Thr Leu Leu Thr Val Ile Val Ala Ile Ile Ile
65                  70                  75                  80
Gly Ile Ile Gln Leu Leu Thr Leu Val Leu Asn Val Ala Glu Pro Thr
                85                  90                  95
Gly Arg Phe Trp Asp Gly Val Gln Thr Ala Gly Asp Tyr Tyr Asp Val
            100                 105                 110
Ile Gly Gly Ala Ile Cys Gly Cys Phe Leu Ile Val Gly Ile Leu Ser
        115                 120                 125
Val Val Leu Tyr Lys Pro Trp Arg Arg Trp Ile Ala Lys Arg Gln Gly
    130                 135                 140
Lys Ser Thr Ala Ala Asp Glu Glu Ser Ser Arg Pro Arg Asp Glu Leu
145                 150                 155                 160
Pro Pro Ala Asn Thr Gly Arg Ala Val Leu Ser Glu Glu Ser Asn Ala
                165                 170                 175
Ser Thr Ser Val Val Ser Tyr Gly Ala Val Gly Lys Gly Ala Thr Ser
            180                 185                 190
Gln Val Val Ala Gln Pro
        195
```

<210> 39616
<211> 181
<212> PRT
<213> A.fumigatus

<400> 39616

```
Ser Lys Arg Gly Pro Val Glu Arg Asn Pro Gly Ala Gly Glu Ala Arg
1               5                   10                  15
Cys His Asp Gln Ala Gly Gly Cys Thr Ser His Lys Pro Ile Arg Val
            20                  25                  30
```

```
Pro Ser Leu Ala Arg Thr Ala Arg Arg Pro Ile Gln Pro Gly Pro Pro
        35                  40                  45
Ala Gln Ala Ile Pro Ala Asn Asp Val Arg Ala Arg Arg Ser Gly Pro
    50                  55                  60
Leu Thr Ser Pro Ala Gly Leu Gly Gln Glu Pro Arg His Val Arg Leu
65                  70                  75                  80
His Ala Val Arg Thr Ala Pro Pro Ala Gln Arg Gly Val His Gln Pro
                85                  90                  95
Ala Gly Gln Asn Pro Gln Asp Pro Arg Ala His Ala Arg Arg Asp Arg
            100                 105                 110
Arg Pro Arg Leu Gln His Leu Tyr Arg Arg Ala Gly Arg Leu Pro Ile
        115                 120                 125
Pro Asp Ser Thr Ala Leu Arg Asp Pro His Pro Pro Arg Leu Arg Arg
    130                 135                 140
Gln Asp Arg Arg Pro Leu Arg Arg Ile Pro Ser Gln Arg Ala Arg Tyr
145                 150                 155                 160
Ala Arg Arg Arg Arg Arg Pro Arg His Arg Pro Arg Pro Gln Asn Pro
                165                 170                 175
Pro Pro Leu Leu Glu
            180
```

<210> 39617
<211> 67
<212> PRT
<213> A.fumigatus

<400> 39617

```
Leu Ser Ser Ala Ser Thr Ala Ser Thr Pro Ser Ser Ala Ala Ser Ala
1               5                   10                  15
Ser Cys Gln Thr Glu Thr Thr Ala Ser Lys Ser Pro Thr Ser Pro Pro
            20                  25                  30
Ala Cys Ile Ser Ser Thr Ala Pro Ser Ala Thr Ser Arg Val Ala Pro
        35                  40                  45
Ser Ala Arg Arg Phe Ser Thr Ala Cys Thr Asn Ser Leu Met Ser Ala
    50                  55                  60
Met Ile Ser
65
```

<210> 39618
<211> 88
<212> PRT
<213> A.fumigatus

<400> 39618

```
Gly Arg Gly Cys Ala Val Gln Cys Ala Gln Ala His Val Gln Ala Asp
1               5                   10                  15
Gln Ser Val Arg Gly Ser Gln Ile Arg Cys Thr Asn Asp Pro Ala Asp
            20                  25                  30
Ser Val Val Arg Pro Trp Lys Met Tyr Pro Leu Gly Ile Leu Phe Gly
        35                  40                  45
Leu Gly Phe Asp Thr Ser Ser Glu Ile Ala Leu Leu Gly Ile Ser Ser
    50                  55                  60
Ile Glu Ala Ala Arg Gly Thr Asp Phe Trp Val Ile Leu Ile Phe Pro
65                  70                  75                  80
Ile Leu Phe Thr Gly Gly Ser Ala
                85
```

<210> 39619
<211> 421
<212> PRT
<213> A.fumigatus

<400> 39619
Ser Pro Asn Cys Gln Ile Gln Arg Ser Asn Gly Tyr Thr Pro Pro Ala
1 5 10 15
Met Ser Asp Ile Thr Thr Tyr Thr Ser Leu Lys His Asp Leu Asn Glu
20 25 30
Ser Pro Asp Gly Leu Asp Phe Ser Ser Leu Pro Pro Ile Phe Val Leu
35 40 45
Ser Thr His Leu Glu Leu Asp Ala Leu His Gln Ile Glu Asp Asp Leu
50 55 60
Val Thr Arg Gly Gly Arg Leu Thr Tyr Asp Ile Ser Glu Ala Arg Leu
65 70 75 80
Val Leu Gly Arg Ile Ser Gln Lys Lys Arg Ala Ala Leu Glu Leu Arg
85 90 95
Ser Arg Gly Val Trp Thr Glu Glu Val Ser Gly Ser Gly Ser Val Ser
100 105 110
Ala Pro Leu Arg Thr Ser His Glu Pro Pro Val Lys Arg Arg Arg Val
115 120 125
Asp Val Val Gln Gln Gly Lys Pro Arg Gly Ala Gln Leu Glu Asp Ile
130 135 140
Asp Leu Gly Thr Glu Thr Val Asp Glu Glu Asp Gly Met Arg Ser Leu
145 150 155 160
His Asp Thr Arg Gly His Leu Arg Arg Pro Arg Ser Val Ser Pro Asp
165 170 175
Thr Ala Ser Val Ala Ser Thr Pro Ser Leu Thr Ser Ser Val Ala Thr
180 185 190
Ala Leu Glu Asp His Glu Gln Ala Asp Val Val Thr Val Val Lys Leu
195 200 205
Asp Trp Leu Ser Glu Val Leu Arg Thr Gly Thr Leu Val Pro Leu Asp
210 215 220
Pro Phe Val Val Tyr Arg Gly Arg Arg Thr Ala Gln Pro Ala Ser Glu
225 230 235 240
Ala Ser Ala Asp Gln Ser Lys Gly Ile Leu Glu Arg Ala Lys Gln Asp
245 250 255
Ala Met Thr Arg Pro Ala Ala Ala Pro Pro Thr Ser Arg Phe Ala Ser
260 265 270
Arg Arg Ser Arg Glu Pro His Asp Gly Pro Ser Ser Gln Gly His Arg
275 280 285
Pro Lys Leu Tyr Arg Gln Thr Thr Ser Glu His Asp Glu Ala Val Pro
290 295 300
Leu Pro Pro Pro Pro Asp Trp Val Lys Ser His Val Met Tyr Ala Cys
305 310 315 320
Met Arg Ser Ala Pro Leu His Pro Pro Asn Glu Ala Phe Ile Asn Gln
325 330 335
Leu Val Lys Ile Arg Lys Thr Arg Glu Leu Thr Leu Asp Glu Ile Gly
340 345 350
Val Arg Ala Tyr Ser Thr Ser Ile Ala Ala Leu Ala Ala Tyr Pro Tyr
355 360 365
Gln Ile Arg Arg Pro Ser Glu Ile Leu Thr Leu Pro Gly Cys Asp Ala
370 375 380
Lys Ile Ala Ala Leu Phe Ala Glu Phe Gln Ala Ser Glu His Gly Thr

385 390 395 400
Leu Ala Ala Ala Asp Ala Leu Asp Thr Asp Pro Val Leu Lys Thr Leu
405 410 415
His Leu Phe Trp Asn
420

<210> 39620
<211> 135
<212> PRT
<213> A.fumigatus

<400> 39620
Tyr Arg Pro Leu Leu Gly Arg Ser Lys Lys Leu Gly Lys Val Lys Gly
1 5 10 15
Ile Val Pro Arg Lys Ile Pro Cys Lys Ser Leu His Asn Phe Leu Ile
20 25 30
Gln Thr Leu Gln Cys Ile Asn Thr Leu Gln Leu Ser Phe Val Ile Leu
35 40 45
Ile Gly Leu Tyr His Gly Leu Phe Glu Ile Leu Pro Pro Gly Asp Ile
50 55 60
Ser Arg Ser Val Val Cys Trp Glu His Asp Cys Glu Gly Arg Leu Leu
65 70 75 80
Pro Pro Cys Pro Pro Pro Ala Leu Asp Glu Gly Leu Glu Val Gly Trp
85 90 95
Phe Val Ile Ala His Asp Asp Ala Thr Gly Thr Lys Ile Asn Thr Phe
100 105 110
Phe Glu Asp Val Cys Gly Tyr Asp Lys Val Leu Ala Thr Ala Ala Glu
115 120 125
Ile Val Gln Cys Ile Ala Leu
130 135

<210> 39621
<211> 170
<212> PRT
<213> A.fumigatus

<400> 39621
Arg Ala Phe Arg Gln Arg Lys Glu Ala His Ile Arg Glu Leu Glu Gly
1 5 10 15
Lys Val Lys Ala Tyr Glu Ser Met Gly Glu Ala Ile Lys Ala Leu Gln
20 25 30
Ala Glu Asn Tyr Gln Leu Arg Glu Tyr Ile Ile Asn Leu Gln Ser Arg
35 40 45
Leu Leu Asp Ser Gln Gly Glu Val Pro Glu Leu Pro Gly Asn Ile Asp
50 55 60
Leu Ser Gln Pro Arg Ser Glu Ile Pro Val Pro Pro Ile Pro Asn Ser
65 70 75 80
Gly Thr Ala Thr Thr Thr Ala Pro Pro Pro Thr Ala Pro Gln Gln Pro
85 90 95
Gln Pro Ser His Asp Gln Ala Pro Thr Ser Asn Asp Asp Met Asn Ser
100 105 110
Leu Asn Arg Ile Ala Val Ala Gly Leu Gly Met Arg Lys Pro Pro Thr
115 120 125
Glu Glu Ala Asn Tyr Leu Gly Asn Asn Phe Gln Ala Gln Ala Arg Arg
130 135 140
Val Arg Pro Asp Glu Gly Gln Pro Glu Ala Ser Glu Leu Pro Lys Gln

145 150 155 160
Glu Gln Thr His Gly Leu Pro Leu Ile Ser
165 170

<210> 39622
<211> 148
<212> PRT
<213> A.fumigatus

<400> 39622
Val Thr Leu His Val Val Pro Val Glu Asn Thr Ala Gln Arg Thr Arg
1 5 10 15
Ser Cys Ala Cys Cys Ala Leu His Pro Pro Asn Thr Phe His Asn Arg
20 25 30
Arg Leu Ala Ser Ala Asn Ile Lys Ser Leu Val Leu His Asp Gln Leu
35 40 45
Leu Ala Ala Gln His Gln His Leu Thr His Pro Gln Gln Ala Arg Pro
50 55 60
Gln Pro Pro Ala Pro Gln Pro Pro His Met Gln Pro Asn Thr Pro Ala
65 70 75 80
Arg Asp Gln Asn Asn Ile Asp Pro Ala Ile Ser Gly Ala Thr Met Leu
85 90 95
Thr Gly Pro Pro Gln Thr Pro Thr Gln Pro Asp Val Thr Gly Gln Glu
100 105 110
Thr Pro Lys Thr Tyr Gly Lys Arg Pro Leu Ser Thr Ser Lys Arg Ala
115 120 125
Ala Gln Asn Arg Ala Ala Gln Val Arg Ala Leu Arg Lys Thr Val Tyr
130 135 140
Lys Ile Cys Asp
145

<210> 39623
<211> 407
<212> PRT
<213> A.fumigatus

<400> 39623
Gln Pro Val Pro Trp Ser Asp Arg Ile Thr Gln Ser Ser Cys Gln Tyr
1 5 10 15
Ser Lys Phe Phe Thr Asn Ser Leu Leu Glu Leu Ala Asp Ser Pro Ser
20 25 30
Lys Met Val Glu Ser Lys Pro Asp Ala Val Cys Arg Thr Pro Arg Leu
35 40 45
His Arg Gln Glu Leu Leu Lys Phe Thr His Arg Pro His Leu Gln Gln
50 55 60
Ile Trp Tyr Thr Pro Thr Asp Pro Ala Gly Phe Arg Ser Ala Ser Leu
65 70 75 80
Thr Leu Gly Ala Leu Tyr His Ala Trp Glu Asn Leu Asp Ile Gly Asp
85 90 95
Asp Pro Tyr Ile Gln Arg Leu Arg Lys Ser Ser Leu Asp Asp Arg Ala
100 105 110
Leu Lys Lys Ala Leu Leu Thr Gly Lys Thr Tyr Cys Arg Glu Gln Leu
115 120 125
Arg Arg Phe Val Asp Arg Ser Arg His Ile Phe Glu Glu Leu Gly Glu
130 135 140
Trp Ala Ala Glu Tyr Tyr Ile Tyr Ala Ser Ile Lys Gln Leu Arg Asp

```
145                 150                 155                 160
Arg Val Arg Asp Ser Tyr Met Ser Gly Asp Trp Asp Glu Ala Glu Lys
                165                 170                 175
Ala Tyr Leu Val Asp Phe Leu Ser Lys Ile Pro Thr Ser Asp Ile His
            180                 185                 190
Phe Ala Leu Asn Asp Pro Asp Gly Phe Arg Ile Ser Pro Lys Phe Glu
        195                 200                 205
Ser Leu Leu Asn Phe Leu Asp Ser Ser Asp Gln Arg Glu Phe Ser Gly
    210                 215                 220
Leu Ile Phe Val Lys Gln Arg Val Thr Val Ser Ala Met Thr Ser Leu
225                 230                 235                 240
Leu Ser Val His Pro Tyr Thr Arg Glu Arg Phe Arg Cys Ala Ala Tyr
                245                 250                 255
Val Gly Trp Ser Asn Ser Ser Ala Ser Lys Asp Ile Leu Gly Asp Leu
            260                 265                 270
Leu Asn Met Gln Leu Gln Arg Asp Thr Leu Asp Asp Phe Arg Ser Gly
        275                 280                 285
Arg Lys Asn Leu Ile Ile Ala Thr Asp Val Leu Glu Glu Gly Ile Asp
    290                 295                 300
Leu Ser Ala Cys Ser Val Val Val Cys Tyr Asp Lys Pro Pro Asn Leu
305                 310                 315                 320
Lys Ser Phe Ile Gln Arg Arg Gly Arg Ala Arg Arg Lys Gln Ser Thr
                325                 330                 335
Phe Ala Ile Met Phe Pro Thr Asp Asp Thr Ser Ala Asp Val Ser Arg
            340                 345                 350
Trp Gln Asp Leu Glu Gln Ala Met Ile Glu Ala Tyr Gln Asp Asp Glu
        355                 360                 365
Arg Gln Leu Gln Ser Val Tyr Ala Leu Glu Ser Leu Asp Glu Glu Val
    370                 375                 380
Met Glu Arg Leu Thr Gly Asp Phe Thr Arg Tyr Asp Ser Phe His Phe
385                 390                 395                 400
Pro Lys Phe Leu Gly Ser Pro
                405
```

<210> 39624
<211> 461
<212> PRT
<213> A.fumigatus

```
<400> 39624
Arg Gly Gly Trp Ile His Thr Gly Gly Ser Asp Pro Ala Met Glu Val
1               5                   10                  15
Tyr Ser Arg Gly His Asn Pro Leu Leu Met Gly Val Val Arg Asp His
            20                  25                  30
Ser Arg Tyr Gly Glu Thr Phe Leu Phe Arg Lys Trp Leu Val Ser Gln
        35                  40                  45
Pro Glu Pro Val Met Phe Asp Leu Trp Ser Trp Asn Val Leu Pro Phe
    50                  55                  60
Pro His Arg Arg Asn Phe Val Gly Arg Gln Thr Leu Val Asn Ser Gln
65                  70                  75                  80
Val Asp Val Asp Glu Ala Ile Pro Asp Ser Ala Ala Lys Asn Pro Ile
                85                  90                  95
Val Ala Ala Glu Ala Cys Thr Ile Asp Arg Leu Pro Phe Thr Met Ala
            100                 105                 110
Ile Phe Gly Leu Phe Ile Ser Ala Ile Val Glu Gln Leu Glu Ile Glu
        115                 120                 125
```

```
Leu Ile Ala Thr Arg Leu Arg Asp Thr Ile Leu Arg Asp Val Ser Phe
    130                 135                 140
Lys Ser Thr Asp His Ile Ile Thr Ala Ile Ser Thr Pro Leu Ala His
145                 150                 155                 160
Arg Leu Thr Asn Tyr Gln Arg Tyr Glu Phe Leu Gly Asp Ser Ile Leu
                165                 170                 175
Lys Phe Ser Val Ser Cys Gln Leu Phe Phe Gln His Pro Asn Trp His
            180                 185                 190
Glu Gly Tyr Leu Ser Glu Gly Arg Asp Met Ile Val Gln Asn Pro Arg
        195                 200                 205
Leu Ala Lys Ala Ala Leu Asp Thr Gly Leu Asp Ala Tyr Ile Val Thr
    210                 215                 220
Lys Arg Leu Ala Ser Arg Lys Trp Ser Ala Pro Leu Ile Ser Glu Lys
225                 230                 235                 240
Leu Glu Arg Val Pro Ala Lys Arg Gln Met Ser Thr Lys Val Leu Ala
                245                 250                 255
Asp Val Val Glu Ala Leu Ile Gly Ala Ala Tyr Val Asp Gly Gly His
            260                 265                 270
Ser Thr Ala Gln Ala Cys Ile Arg Arg Phe Leu Pro Glu Ile Asn Leu
        275                 280                 285
His Ala Val Asp Thr Arg Thr Ala Ala Arg Ser Val Ala Pro Glu Ser
    290                 295                 300
Ala Arg His Met Met Asn Asp Arg Leu Lys Asp His Ile Gly Tyr Thr
305                 310                 315                 320
Phe Glu Asp Glu Ser Leu Leu Val Glu Ala Leu Thr His Pro Ser Cys
                325                 330                 335
Asp Tyr Asp Ser Thr Thr Gln Ser Tyr Gln Arg Leu Glu Tyr Leu Gly
            340                 345                 350
Asp Ala Val Leu Asp Met Val Ile Val Ser Ala Ile Phe Asn His Arg
        355                 360                 365
Ile Gln Arg Pro Gln Gly Asp Met Thr Lys Ile Lys His Ala Val Val
    370                 375                 380
Asn Ala Asn Leu Leu Ala Phe Leu Cys Met Glu Phe Ala Ile Ser Glu
385                 390                 395                 400
Glu Lys Leu Asp Val Ala Gln Thr Ser Lys Asp Ser Phe Ala Val Thr
                405                 410                 415
Ser Ser Gln Glu Ser Val Glu Leu Trp Arg Phe Met Arg Tyr Arg Gly
            420                 425                 430
Gln Gly Leu Lys Ala Ala Arg Asp Ala Ser Leu Ala Arg His Arg Ala
        435                 440                 445
Leu Arg Asp Glu Ile Ala Ser Ser Leu Arg Pro Ala Arg
    450                 455                 460
```

<210> 39625
<211> 343
<212> PRT
<213> A.fumigatus

```
<400> 39625
Val Val Leu Leu Ile Ala Met Ile Gln Ala Lys Asp Arg Pro Tyr Leu
1               5                   10                  15
Glu Ala His Phe Pro Leu Leu Val Pro Pro Ile Leu Ala Leu Ile Asp
            20                  25                  30
Asp Asp Ser Val Thr Tyr Lys Thr Arg Gly Cys Leu Phe Leu Thr Gln
        35                  40                  45
Leu Leu Thr Pro Ile Arg Glu Ser Lys Ser Asp Ile Leu Gln Arg Thr
```

```
    50                  55                  60
Asn Leu Ala Ser Val Phe Glu Asp Ala Val Arg Pro Cys Leu Leu Ser
65                  70                  75                  80
Leu Pro Ser Ile Thr Pro Glu Asp Asp Ala Ile Lys Leu Leu Gly Val
                85                  90                  95
Ala Tyr Pro Ala Leu Leu Ser Leu Leu Gln Thr Asn Tyr His Thr Ala
            100                 105                 110
Thr Ser Arg Ser Ala Ala Asn Ala Asn Arg Asp Lys Tyr Ile Ser Ser
        115                 120                 125
Val Ala Arg Thr Leu Arg Glu Asn Leu Ile Ser Ser Phe His His Ile
    130                 135                 140
Ser Ser Thr Asn Arg Thr Ser Ile Ser Ser Phe Ala Ser Phe Pro Tyr
145                 150                 155                 160
Pro Arg Leu Ser Thr Leu Leu Val Asn Gln Met Tyr Pro Leu Leu Leu
                165                 170                 175
Glu Leu Gly Ile His Thr Thr Lys Tyr Leu Gln Glu Ile Val Pro Leu
            180                 185                 190
Leu Tyr Ser Thr Leu Ser Asn Pro Phe Gly Thr Ala Tyr Pro Pro Leu
        195                 200                 205
Leu Leu Ser Ala Val Ala Val Thr Arg Ala Thr Ile Leu Asn Ala His
    210                 215                 220
Pro Arg Leu Trp Arg Trp Arg Gly Glu Ile Leu Gly Ala Leu Cys Ser
225                 230                 235                 240
Cys Trp Leu Arg Val Ala Glu Glu Glu Gly Glu Ile Ala Glu Arg Ala
                245                 250                 255
Ala Lys Gly Arg Ser Ala Ala Glu Asp Gln Glu Thr Asn Thr Thr Leu
            260                 265                 270
Thr Lys Leu Lys Arg Gln Leu Arg Gly Ala Val Tyr Leu Leu Arg Phe
        275                 280                 285
Ala Leu Gln Asn Pro Ala Gln Ala Asp Gly Asp Ala Gly Gln Leu Glu
    290                 295                 300
Ala Lys Ala Ala Ile Gly Lys Glu Leu Gln Asp Leu Val Asp Ala Asp
305                 310                 315                 320
Glu Ser Leu Ala Asp Leu Leu Leu Ala Asp Ile Asp Pro Asn Asp Ala
                325                 330                 335
Asp Phe Phe Gly Met Asp Pro
            340
```

<210> 39626
<211> 97
<212> PRT
<213> A.fumigatus

```
<400> 39626
His Leu Ile Leu Leu Asn Glu Phe Val Ala Leu Thr Cys Ala Arg Pro
1               5                   10                  15
Thr Val Ile Gln Glu Tyr Asp Arg Phe Ile Ser Tyr Ile Ile Gln Asn
            20                  25                  30
Asn Leu Gln Gly Val Cys Glu Met Lys Pro Ile Val Asn Gly Ala Glu
        35                  40                  45
Ile Met Lys Ala Leu Glu Ala Lys Asn Gly Pro Trp Met Ser Arg Ala
    50                  55                  60
Leu Asp Met Val Phe Lys Trp Gln Leu Leu His Pro Glu Ile Thr Glu
65                  70                  75                  80
Lys Glu Thr Ala Leu Lys Tyr Leu Ile Asp Arg Lys Asp Glu Leu Gly
                85                  90                  95
```

Leu

<210> 39627
<211> 895
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (5)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39627

```
Val Ala Leu Lys Xaa Ser Ala Glu Pro Arg Ser Ala Phe Phe Asp Leu
1               5                  10                  15
Gly Glu Glu Ser Ile Asn Arg Met His Lys Ile Ser Leu Tyr Glu Thr
            20                  25                  30
Ala Thr Arg Phe Tyr Met Val Gly Met Asp Leu Ser Asp Thr Arg Phe
        35                  40                  45
Arg Ile Leu Lys Ile Asp Arg Thr Ser Asp Thr Asn Asp Leu Val Ile
    50                  55                  60
Val Glu Asp Asp Ile Val Tyr Thr Lys Ser Glu Met Ser Gln Leu Leu
65                  70                  75                  80
Asp Ala Ile Asp Asp Gly Asn Lys Ile Ser Gly Gly Leu Lys Leu Arg
                85                  90                  95
Cys Ser Ala Trp Ala Leu Leu Gly Phe Ile Arg Phe Thr Gly Ala Tyr
            100                 105                 110
Tyr Met Leu Leu Val Thr Lys Arg Ser Gln Val Ala Met Val Gly Gly
        115                 120                 125
His Tyr Ile Tyr Lys Ile Asp Gly Thr Glu Leu Ile Ser Leu Thr Thr
    130                 135                 140
Ser Ser Ser Ser Lys Leu Lys Pro Glu Lys Asn Pro Glu Glu Ala Arg
145                 150                 155                 160
Tyr Ile Thr Ile Leu Asn Asn Leu Asp Leu Ser Arg Ser Phe Tyr Phe
                165                 170                 175
Ser Tyr Ser Tyr Asp Ile Thr Arg Thr Leu Gln His Asn Ile Cys Arg
            180                 185                 190
Glu Arg Lys Leu His Gln Asp Gly Tyr Ser Lys Gly Phe His Gln Asp
        195                 200                 205
Tyr Asn Thr Met Phe Ile Trp Asn His His Leu Leu Ser Pro Ala Ile
    210                 215                 220
Ala Ala Leu Lys Asn Pro Tyr Gln Trp Cys Leu Pro Ile Ile His Gly
225                 230                 235                 240
Tyr Val Asp Gln Ala Lys Ile Asp Val Tyr Gly Arg Leu Ala Tyr Leu
                245                 250                 255
Thr Ile Ile Ala Arg Arg Ser Arg Phe Phe Ala Gly Ala Arg Phe Leu
            260                 265                 270
Lys Arg Gly Ala Asn Asp Leu Gly Tyr Val Ala Asn Asp Val Glu Thr
        275                 280                 285
Glu Gln Ile Val Ser Glu Met Ser Glu Thr Ser Phe His Ala Pro Gly
    290                 295                 300
Pro Ala Leu Tyr Ala Asn Pro Leu Tyr Thr Ser Tyr Val Gln His Arg
305                 310                 315                 320
Gly Ser Ile Pro Leu Tyr Trp Thr Gln Asp Asn Ser Gly Val Ser Pro
                325                 330                 335
```

```
Lys Pro Asp Ile Glu Leu Asn Leu Val Asp Pro Phe Tyr Ser Ala Ala
            340                 345                 350
Gly Leu His Phe Asp Asn Leu Phe Glu Arg Tyr Gly Ala Pro Ile Tyr
        355                 360                 365
Val Leu Asn Leu Ile Lys Ser Arg Glu Arg Thr Pro Arg Glu Ser Lys
    370                 375                 380
Leu Leu Lys Glu Tyr Thr Asn Ala Ile Asn Tyr Leu Asn Gln Phe Leu
385                 390                 395                 400
Pro Gly Asp Lys Lys Ile Ile Tyr Lys Pro Trp Asp Met Ser Arg Ala
                405                 410                 415
Ala Lys Ser Arg Asp Gln Asp Val Val Gly Thr Leu Glu Glu Ile Ala
            420                 425                 430
Gly Glu Ile Ile Pro Lys Thr Gly Phe Phe Lys Asn Gly Tyr Asp Ala
        435                 440                 445
Asp Ser Gly Leu Gln Leu Gln Asn Gly Ile Ala Arg Thr Asn Cys Ile
    450                 455                 460
Asp Cys Leu Asp Arg Thr Asn Ala Ala Gln Phe Val Ile Ala Lys Arg
465                 470                 475                 480
Ala Leu Gly Tyr Gln Leu His Ala Leu Gly Phe Ile Asp Gly Thr Thr
                485                 490                 495
Leu Glu Tyr Asp Cys Asp Ala Val Asn Leu Phe Ser Ala Met Trp His
            500                 505                 510
Asp His Gly Asp Thr Ile Ala Ile Gln Tyr Gly Gly Ser His Leu Val
        515                 520                 525
Asn Thr Met Ala Thr Tyr Arg Lys Ile Asn Gln Trp Thr Ser His Ser
    530                 535                 540
Arg Asp Met Val Glu Ser Phe Lys Arg Tyr Tyr Asn Asn Ser Phe Leu
545                 550                 555                 560
Asp Ala Gln Arg Gln Glu Ala Tyr Asn Leu Phe Leu Gly Asn Tyr Ile
                565                 570                 575
Phe Thr Gln Gly Gln Pro Met Leu Trp Asp Leu Ser Thr Asp Tyr Tyr
            580                 585                 590
Leu His His Ala Ser Pro Lys Ser Trp Ala Glu Lys Arg Arg Pro Asn
        595                 600                 605
Tyr Ile Asn Trp Tyr Thr Pro Glu Asn Leu Lys Lys Arg Glu Leu Pro
    610                 615                 620
Pro Pro Pro Ser Arg Pro Lys Glu Pro Leu Ser Arg Phe Asp Asp Tyr
625                 630                 635                 640
Trp Leu Glu Tyr Tyr Arg Pro Leu Ala Val Ser Thr Leu Pro Lys Ile
                645                 650                 655
Phe Ser Phe Lys Met Lys Ser Thr Phe His Tyr Val Pro His His Phe
            660                 665                 670
Ser Pro Phe Asp Val Arg Ile Ala His Glu Gln Ala Asn Arg Glu Arg
        675                 680                 685
His Pro Gln Arg Ser Val Arg Ile Gln Glu Pro Gly Ser Ser Val Ile
    690                 695                 700
Glu Gln Ser Arg Arg Ser Pro Met His Ser Ser Pro Arg Asn Pro Asn
705                 710                 715                 720
His Thr Gln Asn Gly Leu Gln Gln Pro Asp Leu Thr Gln Pro Ser Ala
                725                 730                 735
Lys Cys Thr Lys Asp Ser Ile Tyr Glu Leu Ser Val Ser Ser Ser Lys
            740                 745                 750
Ile Pro Ser Met Gln Thr Ser Thr Glu Ser Ala Thr Pro Ser Lys Ala
        755                 760                 765
Gln Ile Ala Gln Trp Thr Leu Gly Gln Leu Val Ala Asp Ser Leu Asn
    770                 775                 780
```

```
Pro Ser Val Thr Ala Ala Glu Ala Glu Glu Tyr Glu Arg Tyr Ile Asn
785                 790                 795                 800
His Pro Leu Asn Val Pro Leu Val Val Thr Ser Glu Asp Glu Ile Thr
                805                 810                 815
Ala Ala Ser Ala Gln His Glu Ser Asn Leu Asp Leu Leu Glu Tyr Ala
            820                 825                 830
Asn Lys Cys Asn Ile Glu Glu Ala Ile Leu Glu Ala Asn Ala Glu Glu
        835                 840                 845
Asn Leu Ala Asp Tyr Ala Glu Phe Leu Thr Val Ser Glu Glu Gly Leu
    850                 855                 860
Thr Val Val Ala Glu Asp Tyr Glu Lys Lys Arg Tyr Lys Arg Tyr Arg
865                 870                 875                 880
Gln Trp Leu Arg Gly Lys Ser Leu Phe Lys Gln Arg Val Asp Ile
                885                 890                 895
```

<210> 39628
<211> 145
<212> PRT
<213> A.fumigatus

<400> 39628

```
Ser Ile Asp Lys Leu Arg Asn Cys Val Arg Arg Asp Asp Phe Cys Lys
1               5                   10                  15
Pro Gly Phe Ser Pro Thr Tyr Ile Asp Tyr Arg Val Ser Asp Pro Ser
            20                  25                  30
Tyr Ser Leu Asp Pro Arg Ser Ala Gly Pro Ser Ser Ile Trp Tyr Pro
        35                  40                  45
Asp Leu Arg Thr Leu Cys Val Met Cys Gln Trp Pro Tyr Ala Gln Arg
    50                  55                  60
Cys Ser Arg Cys Leu Ser Ser Trp Tyr Cys Ser Lys Arg Cys Gln Ser
65                  70                  75                  80
Ile Asp Trp Pro Phe Pro Gln Ala Pro Leu Leu Pro Ile Pro Gln Leu
                85                  90                  95
Pro Gly His Pro Pro Ile Arg Gly Pro Gln Ala Arg His Leu Val Ser
            100                 105                 110
Gln Arg His Asn Pro Ala Asn Ala His Met Gly Pro Tyr Leu Phe Ser
        115                 120                 125
Arg Met Gly Leu Pro Leu Ser Leu Leu Gly Pro Leu Pro Trp Pro Lys
    130                 135                 140
Ala
145
```

<210> 39629
<211> 96
<212> PRT
<213> A.fumigatus

<400> 39629

```
His Ser Thr Asp Val Asp Ile His Gly Ser Val Leu Leu Arg Arg Leu
1               5                   10                  15
His Gly Glu Asp Leu Asp Leu Ala Met Ala Lys His Met Cys Phe Tyr
            20                  25                  30
Cys Leu Glu Val Leu Lys Pro Leu Phe Glu Lys Ala Leu Ser Gly Glu
        35                  40                  45
Ile Ser Arg Gln Asp Gly Leu Asp Glu Ile Thr Leu Glu Lys Ala Thr
    50                  55                  60
```

```
Ala Trp Lys Pro Ile Asp Ala Tyr Thr Glu Val Thr Ala Glu Gln Pro
65                  70                  75                  80
Arg Pro Gln Arg Gly Phe Val Arg Arg Met Gly Ser Ser Gly Trp Glu
                85                  90                  95
```

<210> 39630
<211> 202
<212> PRT
<213> A.fumigatus

<400> 39630

```
Pro Met Pro Leu Gln Leu Val Leu Phe Gln Glu Met Pro Lys His Arg
1               5                  10                  15
Leu Ala Phe Pro Thr Ser Ser Ser Ala Pro Asp Thr Ala Ile Ala Trp
            20                  25                  30
Pro Pro Ala Asp Gln Arg Thr Thr Gly Ser Ala Ser Gly Phe Ser Glu
        35                  40                  45
Thr Gln Pro Ser Gln Arg Ser Tyr Gly Pro Leu Ser Ile Leu Gln Asn
    50                  55                  60
Gly Ala Ser Thr Val Pro Ala Trp Thr Thr Ser Leu Ala Gln Ser Met
65                  70                  75                  80
Ser Ser Phe Ser Pro Ser His Ser Ser Lys Thr Lys Glu Glu Pro Tyr
                85                  90                  95
Ser Ser Thr Thr Leu Leu Gln Cys Thr Cys Asp Tyr Asn Ile Val Ile
            100                 105                 110
Asn Lys Ser Val His Ala Ala Val Glu Asp Cys His Gly Met Ser Thr
        115                 120                 125
Pro Tyr Asn Met Pro Gly Glu Tyr Val Val Met Ser Gly Gln Gln Gly
    130                 135                 140
Ser Tyr Thr Gly Thr Ala Lys His Glu Phe Lys Asp Ile Thr Leu Ala
145                 150                 155                 160
Asp Phe Arg His Ala Leu Gly Trp Phe Ser Thr Tyr Phe Asp Asp Thr
                165                 170                 175
Val Arg Glu Thr Ser Ser Gly Gly Ser Ser Val Leu Ala Val Gln Ala
            180                 185                 190
Ser Ser Pro Phe Lys Gln Asn Ser Ser Gly
        195                 200
```

<210> 39631
<211> 105
<212> PRT
<213> A.fumigatus

<400> 39631

```
Ser Thr Arg Ser Cys Ser Ala Gln Val His Ser Glu Ser Asn Pro Leu
1               5                  10                  15
Ile Phe Tyr Glu Ile Trp Phe His Leu Pro Thr Lys Arg Ala Pro Glu
            20                  25                  30
Leu Pro Arg Val Gly Leu Thr Asp Leu Val Ser Tyr Asp Ile Arg Lys
        35                  40                  45
Thr Ser Ile Arg Ala Leu Arg Arg Lys Phe His Ser Arg Lys Trp Lys
    50                  55                  60
Asp Thr Trp Asp Ser Leu Cys Gly Ala Ile Gly Ile Gln Gln Ile Met
65                  70                  75                  80
Val Asn Leu Ile Met Thr Gln Ala Lys His Leu Ala Ser Val Ile Ala
                85                  90                  95
```

Glu Ile Asn Ser Ser Glu Trp Val Arg
100 105

<210> 39632
<211> 130
<212> PRT
<213> A.fumigatus

<400> 39632
Asn Asp Asp Leu Gly Thr Glu Ala Cys Ile Ile Ile Lys Lys Ile Glu
1 5 10 15
Lys Glu Leu Ile Ser Ala His Arg Asn Leu Gly Thr Phe Pro Ser Gln
20 25 30
Asn Ile Val Ile Ser Tyr Ile Ser Ala Phe Phe Leu Ile Val Gly Phe
35 40 45
Leu Ile Gln Ser Val Gly Leu Ser Met Met His Trp Pro Thr Gln Ser
50 55 60
Leu Gln Leu Leu Ala Ile Ser Ala Met Phe Gly Leu Arg Tyr Trp Leu
65 70 75 80
His Lys Gln Thr Ile Pro Asp Gly Ile Lys Leu Gln Tyr Asn Gln Asp
85 90 95
Asp Gly Pro Lys Lys Glu Phe Asn Thr Gly Lys Ala Glu Lys Glu Leu
100 105 110
Met Ala Leu Leu Pro Pro Ala Ala Pro Ala Gly Asp Ile Val Arg Trp
115 120 125
Ile Ser
130

<210> 39633
<211> 99
<212> PRT
<213> A.fumigatus

<400> 39633
Phe Leu Gly Lys Tyr Arg Asn Thr Gln Gln Ala Trp Asp Ala Glu Ala
1 5 10 15
Leu Arg Gly Leu Val Leu Leu Glu His Ala Leu Ser Thr Lys Ala Gly
20 25 30
Leu Ile Pro Phe Tyr Met Cys Thr Cys Asn Ser Arg Tyr Tyr Lys Ala
35 40 45
Met Pro Tyr Ile Ile Arg Pro Gly Lys Ser Ser Cys Cys Arg Leu Asn
50 55 60
Gln Ser Ala Val Ala Leu Pro Ser His Ala Glu Gly Asn Gly Leu Thr
65 70 75 80
Ser Pro Ile Ala Phe Arg Asn Ser Ser Ser Arg Cys Gly Glu Leu Asn
85 90 95
Ser Thr Val

<210> 39634
<211> 352
<212> PRT
<213> A.fumigatus

<400> 39634
Ile Val Cys Leu Glu Phe Pro Asp Pro Leu Leu Cys Arg Asn Ala Val

```
1               5                   10                  15
Leu Arg Ala Gly Leu Thr Gln Arg Phe Ser Thr Val Lys Pro Trp His
            20                  25                  30
Val Val Val Ala Tyr Glu Ile Ile Asn Phe Phe Cys Tyr Leu Phe Asn
        35                  40                  45
Cys Phe Gly Lys Ser Leu Pro Leu Val Ala Lys Ala Thr Leu Tyr Ile
    50                  55                  60
Ser Leu Ile Ser Phe Leu Val Ile Leu Val Thr Val Pro Ala Cys Ala
65                  70                  75                  80
Lys Thr His Pro Ser Ala Ser Tyr Val Phe Gly His Phe Val Asn Ser
                85                  90                  95
Thr Gly Trp Lys Gln Asp Gly Ile Ala Phe Ile Val Gly Leu Ile Asn
            100                 105                 110
Pro Asn Trp Ile Phe Ala Cys Leu Asp Ser Ala Thr His Leu Ala Glu
        115                 120                 125
Glu Val Pro Gln Pro Glu Lys Asn Ile Pro Ile Ala Ile Met Ala Thr
    130                 135                 140
Val Val Ile Gly Phe Val Thr Ser Trp Thr Tyr Cys Ile Ala Met Phe
145                 150                 155                 160
Phe Gly Leu Asn Asp Leu Asn Lys Leu Leu Ser Thr Ala Thr Gly Val
                165                 170                 175
Pro Ile Leu Glu Leu Tyr Tyr Gln Ala Leu Gln Asn Lys Ala Gly Ala
            180                 185                 190
Ile Val Leu Glu Thr Leu Leu Leu Val Thr Gly Met Gly Cys Leu Ile
        195                 200                 205
Ala Cys His Thr Trp Gln Ser Arg Leu Ala Trp Ala Phe Ala Arg Asp
    210                 215                 220
Arg Gly Leu Pro Gly His Lys Leu Leu Ala Gln Val Asn Lys Thr Leu
225                 230                 235                 240
Asp Val Pro Leu Met Ala His Thr Val Ser Cys Phe Ile Val Ala Ala
                245                 250                 255
Leu Gly Leu Leu Tyr Leu Gly Ser Ser Thr Ala Phe Asn Ser Met Val
            260                 265                 270
Thr Ala Cys Ile Thr Leu Leu Tyr Leu Ser Tyr Ser Cys Pro Ile Leu
        275                 280                 285
Cys Leu Trp Tyr Arg Gly Arg Asn Asn Ile Lys Arg Gly Pro Phe Trp
    290                 295                 300
Leu Gly Lys Trp Gly Leu Ala Ala Asn Ile Val Thr Ile Ala Trp Thr
305                 310                 315                 320
Val Phe Cys Leu Val Met Tyr Ser Phe Pro Ala Thr Met Pro Val Thr
                325                 330                 335
Thr Gly Ser Lys Cys Phe Leu Met Leu Leu Asp Arg Lys His Leu Cys
            340                 345                 350
```

<210> 39635
<211> 133
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (13),(65)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39635
Val Leu Arg Phe Val Cys Arg Ile Pro Trp Phe Gly Xaa Ser Ala Ser

```
1               5                   10                  15
Leu Val Thr Gly Ile Asn Ser Gly Gly Thr Val Leu Ile Val Tyr Gly
            20                  25                  30
Leu Leu Trp Ile Thr Phe Ile Ser Ile Cys Val Ala Ser Ser Leu Ser
        35                  40                  45
Glu Leu Ala Ser Ala Met Pro Asn Ala Gly Gly Gln Tyr Phe Trp Ala
    50                  55                  60
Xaa Glu Leu Ala Pro Gln Lys Tyr Ala Arg Phe Ala Ser Tyr Val Thr
65                  70                  75                  80
Gly Trp Phe Gly Tyr Ala Gly Ala Ile Phe Ala Cys Ala Ser Val Ala
                85                  90                  95
Leu Ser Leu Gly Ser Ala Gly Val Gly Met Trp Gln Leu Gly His Pro
            100                 105                 110
Glu Leu Tyr Ala Trp Asn Ser Leu Thr Leu Phe Ser Ala Glu Met Leu
        115                 120                 125
Phe Cys Ala Pro Gly
    130
```

<210> 39636
<211> 116
<212> PRT
<213> A.fumigatus

```
<400> 39636
Arg Glu Ser Gln His Leu Ala Ala Thr Ser Pro Ser Val Glu Ile Leu
1               5                   10                  15
Arg Phe Leu Leu Leu Gln Gly Gly Ser Val His Ile Arg Asn Arg Asn
            20                  25                  30
Gly Arg Thr Pro Leu Phe Leu Ala Ala Asn Ala Gly Leu Ser Glu His
        35                  40                  45
Val Leu Leu Leu Arg Lys Ser Gly Ala His Leu His Ser Asp Glu Arg
    50                  55                  60
Gln Ala Ala Glu Leu Leu Ala Arg Arg Arg Pro Ala Val Trp Gly Leu
65                  70                  75                  80
Ala Gly Ile Gly Pro Arg Glu Val Ser Asp Arg Glu Met Glu Glu Glu
                85                  90                  95
Asn Glu Ser Leu Leu Gly Arg Arg Glu Ile Pro Ser Arg Met Val Ser
            100                 105                 110
Gly Ser Ala Pro
        115
```

<210> 39637
<211> 377
<212> PRT
<213> A.fumigatus

```
<400> 39637
Arg Glu Gln Ser Thr Ser Gly Tyr Ile Gln Thr Ser Ser Glu Gly Glu
1               5                   10                  15
Leu Ala Cys Arg Val Leu Trp Lys Leu Arg Leu Phe Phe Asp Ala Ser
            20                  25                  30
Ser Gly Leu Pro Asp Asn Met Thr Ala Ala Glu Ala Thr Ile Pro Glu
        35                  40                  45
Leu Leu Glu Glu Gln Ala Asp Ser Val Pro Glu Ser Arg Val Leu Ile
    50                  55                  60
Ile Met Thr Gly Gly Thr Ile Cys Met Lys Gln Ser Pro Ser Gly Phe
```

65 70 75 80
Val Pro Ala Arg Gly Phe Gln Glu Gln Cys Leu Ala Arg Val Pro Thr
85 90 95
Phe Asn Asp Gly Ser Ser Ser Thr Met Met Asp Val Val Val Asn Ala
100 105 110
Ala Arg Glu Ile Arg Pro His Pro Ser Leu Arg Thr Pro Gln Thr Leu
115 120 125
Tyr Gly Arg Arg Val Arg Tyr Thr Val Phe Glu Phe Glu Glu Leu Leu
130 135 140
Asp Ser Ser Ser Ile Asp Ala Lys Gly Trp Thr Glu Ile Ala Arg Thr
145 150 155 160
Ile Glu Arg Asn Tyr Thr Leu Phe Asp Ala Phe Val Val Leu His Gly
165 170 175
Thr Asp Ser Leu Ala Tyr Thr Cys Ser Ala Leu Ser Phe Met Leu Gln
180 185 190
Asn Leu Gly Lys Thr Val Val Leu Thr Gly Ala Gln Ala Pro Met Leu
195 200 205
Glu Leu Gln Asn Asp Ala Thr Asp Asn Leu Leu Gly Ser Leu Val Val
210 215 220
Ala Gly His Phe Val Ile Pro Glu Val Cys Leu Tyr Phe Asn Asn Lys
225 230 235 240
Leu Phe Arg Gly Asn Arg Ser Cys Lys Val Ala Ala Ser Asp Phe Ala
245 250 255
Ala Phe Asp Ser Pro Asn Phe Pro Pro Leu Ala Val Thr Thr Ser Met
260 265 270
Arg Thr Asn Val Asn Trp Glu Leu Val Asn Arg Pro Lys Asn Ile Glu
275 280 285
His Phe Ser Ile Gln Thr Asn Leu Asp Thr Thr His Val Ala Cys Leu
290 295 300
Arg Ile Phe Pro Gly Ile Lys Pro Glu Met Val Asp Ala Val Leu Lys
305 310 315 320
Leu Glu Gly Leu Arg Gly Leu Val Leu Glu Thr Phe Gly Ala Gly Asn
325 330 335
Ala Pro His Gly Gln Asp Asn Ala Met Thr Asn Val Leu Ala Asp Ala
340 345 350
Ile Lys Arg Gly Ile Val Ile Val Asn Val Thr Gln Cys Lys Leu Leu
355 360 365
Cys Arg Thr Ile Cys Tyr Glu Arg Cys
370 375

<210> 39638
<211> 137
<212> PRT
<213> A.fumigatus

<400> 39638
Pro Gln Pro Gly Leu Thr Gly Ser Val Ser Pro Val Tyr Ala Pro Gly
1 5 10 15
Met Ser Leu Ser Arg Ala Gly Val Val Ala Gly Leu Asp Met Thr Thr
20 25 30
Glu Ala Ala Leu Thr Lys Met Ser Tyr Leu Leu Ala Leu Pro Asp Ser
35 40 45
Thr Pro Glu Ser Val Ala Lys Ala Met Ser Val Ser Leu Arg Gly Glu
50 55 60
Leu Thr Glu Val Ser Gln Pro Met Phe Arg His Pro Asp Gly Ala Leu
65 70 75 80

```
Pro Glu Arg Val Gln Thr Leu Thr Met Leu Gly Tyr Ala Ile Ala Gln
                85                  90                  95
Gly Asp Phe Glu Arg Val Gln Glu Ile Phe Lys Ile Glu His His Trp
            100                 105                 110
Ile Leu Asn Asp Ala Asp Tyr Ser Gly Asn Thr Pro Ile Val Arg Lys
        115                 120                 125
Ala Phe Tyr Ser Trp Val Phe Arg Glu
    130                 135
```

<210> 39639
<211> 65
<212> PRT
<213> A.fumigatus

<400> 39639

```
Ser Arg Leu Cys Ala Ser Ser Gln Glu Arg Ser Leu Arg Leu Asn Thr
1               5                   10                  15
Lys Cys Ser Gln Glu Gly Leu His Ser Met Lys Asp Asn Glu Asn Asn
            20                  25                  30
Glu Asp Arg Leu Lys Asn Met Ile Ser Leu Ile Asn Gln Gly His Ser
        35                  40                  45
Lys His His Lys Val Ser Arg Gln Gly Gly Arg Thr Gly Arg Arg Thr
    50                  55                  60
Ile
65
```

<210> 39640
<211> 227
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (10),(49)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39640

```
Leu Ala Cys Arg Val Ser Gln Asn Ser Xaa His Thr Ser Val Phe Glu
1               5                   10                  15
Ala Asp Pro Asp His Ser Gln Phe Gln Ser Gln Thr Pro Asn Gly Arg
            20                  25                  30
Arg Thr Ala Gly Arg Ala Arg Ser Asn Thr Ala His Ser His His Glu
        35                  40                  45
Xaa Tyr Glu Pro Leu His Glu Glu Leu Thr Asn Gly Val Ser Pro Arg
    50                  55                  60
Pro Ile Ile Arg Ser Asp Arg His Ala Ser Ser Val Pro Pro Thr Leu
65                  70                  75                  80
Pro Ala Arg Glu Ala Tyr Pro Ala Glu Thr Pro Tyr Gln Arg Pro Phe
                85                  90                  95
Leu Asn Arg Thr Ser Thr Phe Glu Gly Pro Ser Gln Leu Arg His Leu
            100                 105                 110
Gln Pro Ser Gly Leu Ser Ser Trp Gln Ser Arg Ala Ala Ser Glu Asn
        115                 120                 125
Leu Val Ser Arg Arg Asp Ser Ser Gln Pro Arg Pro Val Ser Met Met
    130                 135                 140
Pro Asp Asn Pro Tyr Thr Asp Ala Tyr Glu Glu Ser Thr Ala His Val
```

```
145                 150                 155                 160
Asn Ser His Ser Asp Val Phe Tyr Gln Gly Arg Ser Ser Pro Pro Ser
                165                 170                 175
His Gly Glu Ile Ile Ser Arg Arg Ala Ser Ser Gly Thr Leu Asn Gly
            180                 185                 190
Ser Ala Leu Asn Lys Lys Gly Pro Pro Pro Pro Pro Pro Ser Arg Ala
        195                 200                 205
Lys Lys Pro Pro Pro Pro Pro Pro Met Lys Arg Pro Met Leu Ser Val
    210                 215                 220
Gly Asp Ala
225
```

<210> 39641
<211> 191
<212> PRT
<213> A.fumigatus

<400> 39641

```
Tyr Leu Phe Pro Ser Ser Ala Ala His Thr Arg Leu Asn Lys Ala Pro
1               5                   10                  15
Ala Gln Phe Arg Thr Leu Asp Tyr Ala Glu Arg His Gly Tyr Val Arg
            20                  25                  30
Gly Val Val Lys Glu Ile Ile His Asp Pro Gly Arg Gly Ala Pro Leu
        35                  40                  45
Ala Lys Val Gln Phe Arg His Pro Tyr Lys Phe Lys Met Val Thr Glu
    50                  55                  60
Thr Phe Ile Ala Asn Glu Gly Met Tyr Thr Gly Gln Phe Ile Tyr Ala
65                  70                  75                  80
Gly Lys Asn Ala Ala Leu Thr Val Gly Asn Ile Leu Pro Leu Ala Ser
                85                  90                  95
Val Pro Glu Gly Thr Val Val Thr Asn Val Glu Glu Lys Ser Gly Asp
            100                 105                 110
Arg Gly Ala Leu Gly Arg Thr Ser Gly Asn Tyr Val Thr Val Ile Gly
        115                 120                 125
His Asn Pro Glu Glu Gly Lys Thr Arg Ile Lys Leu Pro Ser Gly Ala
    130                 135                 140
Lys Lys Val Val Lys Ser Thr Ala Arg Gly Met Val Gly Ile Val Ala
145                 150                 155                 160
Gly Gly Gly Arg Thr Asp Lys Pro Leu Leu Ser Met Leu Leu Arg Leu
                165                 170                 175
Ala Asn Ser Leu Leu Val Trp Lys Val Tyr Glu Arg Arg Arg Cys
            180                 185                 190
```

<210> 39642
<211> 61
<212> PRT
<213> A.fumigatus

<400> 39642

```
Arg Val Ser Thr Glu Ala Ser Arg Ala Lys His Lys Phe Ala Val Lys
1               5                   10                  15
Arg Asn Ser Trp Pro Lys Thr Arg Gly Val Ala Met Asn Pro Val Asp
            20                  25                  30
His Val Arg Ser Pro Phe Gly Leu Phe Tyr Ile Phe Phe Leu Glu Gln
        35                  40                  45
His Leu Thr Arg Ile Leu Ser Ala Ala Ser Arg Trp Trp
```

50 55 60

<210> 39643
<211> 231
<212> PRT
<213> A.fumigatus

<400> 39643
Tyr Leu Lys Met His Val Val Asp Asp Ser Asn Asp Ala Pro Lys Ile
1 5 10 15
Leu Pro Leu Pro Arg Ala Ala Pro Ser Thr Ser Ala Ala Ala Arg Trp
20 25 30
Gln Ala Val Val Asn Arg Asp Ala Ala Ala Asn Thr Phe Val Tyr Ala
35 40 45
Val Leu Thr Thr Lys Ile Tyr Cys Arg Pro Ser Cys Pro Ala Arg Leu
50 55 60
Ala Arg Arg Ala Asn Val Arg Phe Tyr Asp Thr Pro Ser Gln Ala Glu
65 70 75 80
Ser Ala Gly Phe Arg Pro Cys Lys Arg Cys Lys Pro Glu Met His Trp
85 90 95
Ala Ala Asn Pro Gln Val Gln Leu Ile Gln Lys Ala Cys Glu Thr Ile
100 105 110
Asn Leu Glu Val Leu Asn Gly Cys Lys Pro Thr Leu Gln Lys Leu Ala
115 120 125
Ser Glu Ala Asn Leu Thr Pro Ser His Phe His Arg Val Phe Lys Lys
130 135 140
Val Met Gly Val Thr Pro Gly Gln Tyr Ser Ala Ala Ala Gln Asp Cys
145 150 155 160
Arg Asn Arg Asn Ala Ser Val Asp Ser Gly Leu Gly Glu Asp Trp Ser
165 170 175
Leu Asn Arg Pro Leu Cys Asp Asp Gly Val Cys Tyr Asp Pro Asp Leu
180 185 190
Leu Gly Gly Leu Asp Asp Ser His Ala Pro Thr Thr Thr Asp Ala Val
195 200 205
Val Trp Asn Asp Phe Asp Ala Met Ile Ala Ala Glu Asn Glu Tyr Ile
210 215 220
Leu Trp Pro Asp Glu Val Gln
225 230

<210> 39644
<211> 150
<212> PRT
<213> A.fumigatus

<400> 39644
Asn Met Arg Val Gly Lys Ile Cys Val Gln Cys Ala Gly Phe Leu Met
1 5 10 15
Leu Leu Phe Ala Glu Thr Ile His Thr Leu Gly Val Asp Arg Ile His
20 25 30
Lys Ser Leu Ala Ala Tyr Leu Lys Ser Ile Ser Lys Arg Ser Glu Gly
35 40 45
Asp Asp Lys Glu Lys Thr Leu Pro Ile Ala His Leu Gly Ser Ser Met
50 55 60
Val Ser His Gly Glu Asp Phe Asp Ala Asn Ser Glu Tyr Gly Arg Cys
65 70 75 80
Leu Thr Ser Lys Arg Pro Cys His Ser Cys Cys Phe Thr Ser Asp Trp

```
                85                  90                  95
Leu Ser Asp Val Val Phe Tyr Gln Ile Val Phe Gly Arg Ala Glu Glu
            100                 105                 110
Arg Ile Ala Arg Val Gln Glu Thr Tyr Ile Ser Gln Ala Thr Ala Thr
        115                 120                 125
Tyr Leu Glu Ser Leu Glu Arg Ser Leu Ala Gln Leu Lys Glu Tyr Gln
    130                 135                 140
Val Arg Phe Pro Ser Val
145                 150
```

<210> 39645
<211> 98
<212> PRT
<213> A.fumigatus

<400> 39645

```
Arg His Glu Gln Ala Ala Arg Lys Lys Leu Asp Ser Arg Arg Leu Ala
1               5                   10                  15
Tyr Asp Thr Ser Leu Ser Lys Met Gln Lys Ala Lys Lys Glu Asp Phe
            20                  25                  30
Arg Val Glu Glu Glu Leu Arg Thr Gln Lys Val Lys Tyr Glu Glu Ala
        35                  40                  45
Asn Glu Asp Ile Tyr Arg Arg Met Tyr Asp Ile Lys Asp Ala Glu Val
    50                  55                  60
Glu Asn Ile Ala Asp Leu Ala Ala Phe Leu Glu Ala Gln Leu Asn Tyr
65                  70                  75                  80
His Glu Arg Cys Arg Glu Val Leu Leu Gln Ile Lys Asn Asp Trp Pro
                85                  90                  95
Ala Glu
```

<210> 39646
<211> 64
<212> PRT
<213> A.fumigatus

<400> 39646

```
Ile Val Ser Gly His Ser Ser Ile His Phe Glu Phe Pro Lys Leu Glu
1               5                   10                  15
Ser Thr Thr Lys Gly Leu Ser Ser Ser Thr Pro Ser His Lys Arg Pro
            20                  25                  30
Thr Asn Ala Cys Thr Val Thr Leu Tyr Ser Val Asp Arg Tyr Asp His
        35                  40                  45
Gly Arg Cys Leu Lys Pro Asn Asn Asn Cys Thr Lys Ser His Ala Asn
    50                  55                  60
```

<210> 39647
<211> 121
<212> PRT
<213> A.fumigatus

<400> 39647

```
Leu Phe Thr Ser Leu Gly Ala Phe Val Phe Ile Phe Gly Leu Ser Thr
1               5                   10                  15
Leu Ile Tyr Cys Leu Thr Phe Leu Cys Asn Asp Val Ser Gly Cys Pro
            20                  25                  30
```

Val Pro Ser Leu Leu Asn Pro Ser Thr Leu Ser Leu Asp Lys Leu Lys
35 40 45
Glu Glu Ala Gly Trp Pro Gln Glu Gly Leu Lys Ala Phe Phe Asp Val
50 55 60
Arg Val Thr Val Trp Val Leu Ser Tyr Tyr Val Leu Ser Leu Val Leu
65 70 75 80
Tyr Val Phe Leu Pro Gly Glu Val Val Glu Gly Thr Glu Leu Ala Cys
85 90 95
Lys Gly Arg Leu Arg Tyr Lys Phe Asn Gly Thr Lys Leu Gly Ala Val
100 105 110
Phe Tyr Val Val Ser Thr Asp Gly Leu
115 120

<210> 39648
<211> 274
<212> PRT
<213> A.fumigatus

<400> 39648
Pro Trp Leu Ala Ile Ala Val Ser Val Arg Ser Leu Pro Ile Ala Val
1 5 10 15
Ser Gly Arg Ile Phe Glu Gly Leu Ala Ser Asp Asn Leu Leu His Phe
20 25 30
Asn Leu Asn Thr Ile Tyr Val Ser Leu Thr Leu Pro Ser Ser Val Ser
35 40 45
Gly Gln Lys Ala Ser Gln Leu Met Ala Thr Ser Leu Gly Leu Tyr Met
50 55 60
Leu Gly Thr Ala Val Ser Pro Val Ala Val Ser Leu Phe Gln Ser Tyr
65 70 75 80
Thr Ala Ser Phe Ala Ala Ala Leu Ala Ile Phe Gly Ile Thr Leu Ala
85 90 95
Tyr Leu Val Ile Tyr Ile Asp Ile Pro Ala Pro Gln Ala Met Pro Gln
100 105 110
Val Glu Thr Tyr Ser Ser Lys Ile Leu Ser Gly Val Gly Ile Leu Leu
115 120 125
Ser Pro Leu Arg Ser Phe Leu Asp His Pro His Ala Ile Pro Tyr Gly
130 135 140
Leu Ser Leu Leu Leu Tyr Thr Ala Val Gln Ala His Leu Phe Pro Ala
145 150 155 160
Ile Met Val Phe Ala Ser Ile Arg Leu His Ser Ser Ala Phe Gln Asn
165 170 175
Gly Leu Leu Val Ser Ile Ala Ala Ala Cys Ala Ser Val Ser Leu Phe
180 185 190
Leu Lys Val Phe Ile Met Pro Arg Val Arg Trp Leu Arg Leu Asn Ser
195 200 205
Glu Arg Pro Thr Asp Ser Thr Ala Ile Leu Ala Ala Leu Val Ile Gln
210 215 220
Met His Ala Leu Ile Gly Ile Thr Gln Val Arg Asn Ala Gly Gln Leu
225 230 235 240
Tyr Leu Ala Val Ser Val Ala Ala Ala Gly Leu Ala Leu Pro Ala Phe
245 250 255
Phe Lys Gly His Phe Val Ser Leu Thr Pro Asp Ala Ser Arg Ala Ile
260 265 270
Ser Ala

<210> 39649
<211> 278
<212> PRT
<213> A.fumigatus

<400> 39649
Asp Val Cys Met Val Leu Arg Pro Cys Gly Glu Asp Ser Ile Cys Asp
1 5 10 15
Phe Asp Ile Tyr Arg Tyr Gln Ala Gly Ser Asn Leu Gln Ile Gly Asn
20 25 30
Ile Phe Pro Arg Glu Tyr Ala Arg Ala Phe Tyr Glu Gly Met Glu Ala
35 40 45
Glu Gly Gln Lys Asn Ile Val Asn Leu Leu Arg Cys Ala Trp Ala Gly
50 55 60
Ser Gln Lys Tyr Gly Ala Leu Val Trp Ser Gly Asp Ile Ala Ser Ser
65 70 75 80
Trp Gly Ser Phe Arg Asn Gln Leu Ala Ala Gly Leu Asn Met Gly Leu
85 90 95
Ala Gly Ile Pro Trp Trp Thr Thr Asp Ile Gly Gly Phe His Gly Gly
100 105 110
Asn Pro Ala Asp Pro Ala Phe Arg Glu Leu Phe Thr Arg Trp Phe Gln
115 120 125
Trp Gly Thr Phe Cys Pro Val Met Arg Leu His Gly Asp Arg Glu Pro
130 135 140
Lys Pro Glu Gly Gln Pro Thr Ala Pro Gly Ala Asp Asn Glu Ile Trp
145 150 155 160
Ser Tyr Gly Glu Glu Val Tyr Glu Ile Cys Lys Lys Tyr Ile Asp Ile
165 170 175
Arg Glu Glu Leu Arg Asp Tyr Thr Arg Ser Leu Met Lys Glu Ala His
180 185 190
Glu Lys Gly Thr Pro Val Ile Arg Thr Leu Phe Tyr Glu Phe Pro Glu
195 200 205
Asp Lys Lys Ser Trp Glu Val Glu Thr Gln Tyr Leu Phe Gly Ser Lys
210 215 220
Tyr Leu Val Ala Pro Val Leu Glu Ala Gly Gln Arg Lys Ile Thr Val
225 230 235 240
Tyr Leu Pro Glu Gly Ala Leu Trp Lys Leu Trp Gly Glu Glu Thr Glu
245 250 255
Arg Pro Gly Gly Gln Asp Val Glu Val Ala Cys Pro Ile Glu Thr Met
260 265 270
Pro Val Phe Val Arg Val
275

<210> 39650
<211> 371
<212> PRT
<213> A.fumigatus

<400> 39650
Arg Ile Ile Ala Leu Pro Ser Ala Ile Leu Ile Leu Gly Gly Leu Ala
1 5 10 15
Leu Gly Thr Tyr Met His Gly Ala Asp Phe Val Val Trp Thr Phe Leu
20 25 30
Trp Asp Asn Tyr Val Gln Ile Ile Thr Ala Asn Leu Ile Ile Cys Val
35 40 45
Val Leu Ala Ile Phe Val Tyr Ala Arg Ser Phe Ser Ile Pro Ala Pro

```
    50                  55                  60
Gly Gln Pro Asn Pro Glu Leu Arg Glu Leu Ala Pro Gly Gly His Ser
65                  70                  75                  80
Gly Asn Ala Leu Tyr Asp Phe Phe Ile Gly Arg Glu Leu Asn Pro Arg
                85                  90                  95
Val Gln Leu Pro Ile Pro Phe Val Asp Glu Ala Ser Arg Thr Ile Asp
            100                 105                 110
Ile Asn Val Trp Cys Glu Met Arg Pro Gly Leu Leu Gly Trp Ile Ile
        115                 120                 125
Leu Asn Leu Ser Asn Ile Ala Arg Gln Tyr Arg Thr Tyr Gly Tyr Ile
    130                 135                 140
Thr Asn Ser Ile Val Leu Ser Thr Val Phe Gln Thr Phe Tyr Val Leu
145                 150                 155                 160
Asp Ala Leu Tyr Met Glu Pro Ala Val Leu Thr Thr Met Asp Val Ile
                165                 170                 175
Met Asp Gly Phe Gly Tyr Met Leu Ser Phe Gly His Leu Val Trp Val
            180                 185                 190
Pro Phe Ile Tyr Asn Ile Gln Thr Arg Tyr Leu Ala Val Phe Pro Leu
        195                 200                 205
Glu Leu Arg Leu Arg Glu Ile Leu Leu Ile Leu Ala Val Thr Gly Ala
    210                 215                 220
Gly Tyr Ala Ile Phe Arg Gly Ala Asn Asn Gln Lys Asn Arg Phe Arg
225                 230                 235                 240
Arg Asp Pro Ser Asp Pro Arg Met Met His Ile Lys Tyr Ile Gln Thr
                245                 250                 255
Ser Ser Gly Ser Lys Leu Met Ile Ser Gly Trp Trp Gly Leu Ala Arg
            260                 265                 270
His Ile Asn Tyr Leu Gly Asp Trp Leu Met Ser Trp Ser Tyr Ser Leu
        275                 280                 285
Pro Thr Gly Ile Ala Gly Tyr Thr Ile Ile Glu Ser Ile Asn Ser Ser
    290                 295                 300
Gly Asp Met Gln Lys Gln Ala Ile Gln Thr Pro Glu Val Arg Gly Trp
305                 310                 315                 320
Gly Met Ile Phe Thr Tyr Phe Phe Leu Val Tyr Phe Gly Ala Leu Leu
                325                 330                 335
Ile His Arg Glu Gly Arg Asp Glu Glu Lys Cys Lys Ser Lys Tyr Gly
            340                 345                 350
Ala Asp Trp Glu Arg Tyr Thr Ser Ile Val Arg Ser Arg Ile Ile Pro
        355                 360                 365
Gly Ile Tyr
    370
```

<210> 39651
<211> 293
<212> PRT
<213> A.fumigatus

<400> 39651

```
Asp Val Glu Ala His Ser Gly Asp Val Ile Thr Gln Val His Thr Ala
1               5                   10                  15
Ala Thr Asn Ser Leu Val Tyr Lys Pro Asn Val Val Leu Ile Asn Ala
            20                  25                  30
Gly Thr Asn Asp Cys Asp Arg Asn Ile Asp Pro Ala Asn Ala Gly Ala
        35                  40                  45
Arg Met Arg Ser Leu Ile Glu Thr Leu Ile His Ala Pro Asp Met Ala
    50                  55                  60
```

```
Arg Ala Leu Ile Val Leu Ser Thr Leu Ile Pro Ser Gly Ser Thr Ser
65                  70                  75                  80
Val Glu Ala Asn Arg Pro Ser Val Asn Ala Gln Tyr Arg Ala Leu Val
                85                  90                  95
Ser Asp Met Arg Ala Gly Gln Asn Val Ser Ile Val Leu Ala Asp Met
            100                 105                 110
Asp Pro Pro Ala Pro Ser Pro Gly Asn Asn Trp Ile Lys Tyr Pro Asp
        115                 120                 125
Ser Tyr Ala Asp Asn Lys His Pro Asn Asp Tyr Gly Tyr Ser Gln Met
    130                 135                 140
Ala Asp Ile Trp Tyr Asn Ala Ile Tyr Asp Ala Ala Lys Ala Gly Leu
145                 150                 155                 160
Ile Val Glu Pro Ala Asp Leu Ser Ile Ser Pro Pro Gly Thr Cys Asp
                165                 170                 175
Lys Glu Tyr Gly Ser Gly Val Tyr Ala Gly Gly Phe Thr Gln Gln Gly
            180                 185                 190
Ser Gly Glu Asp Asp Gly Ile Tyr Arg His Asp Ser Glu Tyr Ser Gly
        195                 200                 205
Ala Leu Phe Ser Val Arg Ala Gly Lys Gly Ala Leu Asp Pro Tyr Arg
    210                 215                 220
Asp Asp Asp Glu Leu Phe Phe Phe Phe Gly Arg Leu Tyr Thr Arg Glu
225                 230                 235                 240
Tyr Asp Asp Leu Ile Ile Phe Gln Lys Asp Thr Glu Ser Gly Ala Val
                245                 250                 255
Thr Phe Val Pro Tyr Thr Asn His Val His Thr Glu Lys Lys Glu Phe
            260                 265                 270
Thr Lys Gly Val His Ser Arg Leu Ile Ser Leu His Pro Gly Gly Glu
        275                 280                 285
Ala Thr Arg Lys Ala
    290

<210> 39652
<211> 63
<212> PRT
<213> A.fumigatus

<400> 39652
Val Gln Phe Lys Met Gly Asn Met Ser Ser Glu Lys Thr Leu Gln Asn
1               5                   10                  15
Asn Lys His Ala Asp Asp Leu Gly Glu Gly Ala Met Gln Gln Ile Gln
            20                  25                  30
Glu Cys Ser Ala Phe Ser Ser Thr Ala Glu Lys Arg Leu Val Arg Lys
        35                  40                  45
Ile Asp Ile Met Tyr Val Arg His Ala Ile Ser Leu Pro Arg Tyr
    50                  55                  60

<210> 39653
<211> 191
<212> PRT
<213> A.fumigatus

<400> 39653
Ser Arg Ile Leu Pro Ile Met Thr Phe Ala Tyr Met Met Ala Phe Leu
1               5                   10                  15
Asp Lys Gln Ala Leu Ser Tyr Thr Ala Ile Met Gly Leu Arg Thr Asp
            20                  25                  30
```

```
Leu Asn Leu Lys Gly Ser Glu Tyr Ser Trp Ser Gly Ser Ile Phe Tyr
        35                  40                  45
Phe Gly Tyr Leu Phe Phe Ser Tyr Pro Ala Ser Ile Leu Met Val Lys
    50                  55                  60
Phe Pro Leu Gly Lys Tyr Leu Ala Cys Asn Leu Phe Val Ile Leu Pro
65                  70                  75                  80
Lys Arg Leu Gly Leu Ile Leu Thr Met Asn Ser Met Leu Trp Ala Ile
                85                  90                  95
Val Leu Ala Cys His Ala Ala Thr Thr Asn Phe Ala Gly Leu Met Val
            100                 105                 110
Ala Arg Phe Phe Leu Gly Cys Thr Glu Ala Ser Val Ser Ser Gly Phe
        115                 120                 125
Ser Leu Ile Thr Ser Leu Trp Tyr Arg Thr Ser Glu Gln Pro Leu Arg
    130                 135                 140
His Gly Ile Trp Phe Cys Gly Asn Ser Ile Ser Met Ile Ile Gly Asn
145                 150                 155                 160
Leu Val Ala Met Gly Ile Trp Gln Ile Lys Thr Gly Leu Gln Pro Trp
                165                 170                 175
Lys Val Cys Ser His Pro Leu Gln Asp Ser Ile His Ser Asp Met
            180                 185                 190
```

<210> 39654
<211> 92
<212> PRT
<213> A.fumigatus

<400> 39654

```
Ile Ile Gln Trp Leu Phe Ile Ile Phe Gly Ile Val Thr Phe Leu Trp
1               5                   10                  15
Gly Ile Leu Met Phe Phe Arg Leu Pro Asp Thr Pro Asn Thr Ala Ser
            20                  25                  30
Phe Leu Thr Glu Ala Glu Lys Leu Leu Ala Thr Glu Arg Leu Lys Ala
        35                  40                  45
Asn Asn Ala Gly Tyr Lys Arg Asn Lys Ile Asp Thr Ser Gln Ile Ile
    50                  55                  60
Glu Ala Phe Ile Asp Pro Lys Thr Trp Leu Leu Ala Val Met Ile Leu
65                  70                  75                  80
Gly Phe Asn Ile Pro Asn Gly Gly Phe Thr Thr Ala
                85                  90
```

<210> 39655
<211> 191
<212> PRT
<213> A.fumigatus

<400> 39655

```
Arg Lys Lys Arg Ile Met Asp Pro Tyr Arg Gln Ile Arg Val His Thr
1               5                   10                  15
Ile Val Val Asn Ile Ile Ser His Ile Leu Asp Leu Gly Ile Ile Val
            20                  25                  30
Pro Leu Cys Arg Arg Ser Gly Ser Thr Val Leu Lys Ser Ser His Cys
        35                  40                  45
Arg Glu Leu Arg Asp Ser Gly Ser Ala Arg Val Asp Gly Leu Arg Glu
    50                  55                  60
Gly Val Ala Ser Asp Asn Ala Gly Gly Trp Pro Gly Asp Gly Asp Asp
65                  70                  75                  80
```

```
Ala Gly Trp Gln Ser Ala Gly Arg Pro Val Gly Gln Pro Ser Gln Arg
                85                  90                  95
Arg Thr Arg Gly Arg His Asp Glu Arg Arg Arg Glu Arg Arg Lys Met
            100                 105                 110
Glu Tyr Ser Arg Asp Arg Arg Arg Gly Glu Glu Lys Ile Gly Val Gly
        115                 120                 125
Ile Lys Asp Gly Arg Leu Ala Met Lys Glu Glu Glu Lys Lys Lys Lys
    130                 135                 140
Arg Arg Lys Glu Gly Glu Lys Gly Pro Arg Gly Ile Ile Val Glu Arg
145                 150                 155                 160
Asp Arg Pro Ser Arg Trp Thr Glu Ala Gly Ser Val Cys Cys Pro Ala
                165                 170                 175
Val Thr Pro Gly Tyr Pro Asn Ala Glu Gly Arg Met Ala Gln Arg
            180                 185                 190
```

<210> 39656
<211> 125
<212> PRT
<213> A.fumigatus

```
<400> 39656
Leu His His Ile Leu Gln Asn Pro Gln Leu Pro Leu His Arg His Arg
1               5                   10                  15
Arg Ser Arg Leu Tyr Gln Val Asn Pro Leu Thr Gly Tyr Thr Ala Thr
            20                  25                  30
Asp Pro Asp Lys Asn Asp Asp His Ser Ile Leu Gly Ser Ala Leu Val
        35                  40                  45
Tyr Ala Thr Glu Ser Ile Ala Ala Arg Tyr Ala Gly Leu Leu Leu Met
    50                  55                  60
Gly Val Tyr Ser Val Ser Met Pro Leu Ser Leu Ala Met Val Ala Ser
65                  70                  75                  80
Asn Ile Gly Gly Phe Ser Lys Arg Ala Thr Val Ser Ala Ile Tyr Phe
                85                  90                  95
Val Met Tyr Cys Thr Gly Asn Ile Val Gly Pro Gln Leu Phe Tyr Glu
            100                 105                 110
Ser Glu Ala Pro Lys Tyr Gln Val Cys Cys Ile Gln Leu
        115                 120                 125
```

<210> 39657
<211> 213
<212> PRT
<213> A.fumigatus

```
<400> 39657
Asp Lys Val Asn Gly Pro Leu Ala Ser Ile Thr Ser Ser Pro Arg Phe
1               5                   10                  15
Ser Gly His Gly Val Arg Gly Met Ser Val Gly Thr Glu Thr Leu Ala
            20                  25                  30
Val His Pro Ser Leu Ser Asp Gly Ile Ser Gly Leu Leu Leu Val Glu
        35                  40                  45
Ala Glu His Leu Ser Asn His Ser Ser Gly Gly Asn Leu Asp Gln His
    50                  55                  60
Asn Val Val Gln Ala Asp Ser Val Val Arg Ile Leu Gln Gly Gln Asn
65                  70                  75                  80
Thr Leu Asp Phe Val Gly Leu Asp His Ser Leu Gln His Phe Leu Asp
                85                  90                  95
```

```
Leu His Asp Leu Ala Ile Ser Glu Val Thr Ser Gly Thr Val Gly Ala
            100                 105                 110
Gly Asp Pro Val Ser Asp Ser Gln Asn Thr Ala Gln Ile Val Gly Gly
        115                 120                 125
Val Thr Pro Leu Gly Gly Lys Pro Ala Val Ile Val Val Lys Pro Pro
    130                 135                 140
Asp His Gly Thr Asn Val Glu Gly Thr Ile Asp Arg Val Gln Leu Ile
145                 150                 155                 160
Gly Ser Thr Arg Asp Thr Ser Thr Val Arg Asp Asn Gly Ala Leu Asn
                165                 170                 175
Asn Gly Pro Gln Gln Leu Gly Ala Phe Leu Glu Ser Gln Gly Leu Gln
            180                 185                 190
Ser Ala Thr Gln Arg Val Glu Glu Asp Gln Thr Gly Ser Val Ile Leu
        195                 200                 205
Asn Gln Ile Asn Ala
    210
```

<210> 39658
<211> 190
<212> PRT
<213> A.fumigatus

<400> 39658

```
Ile Val Trp Thr Met Gly Cys Arg Asn His Glu Glu Gly Ser Ser Leu
1               5                   10                  15
Leu Leu Leu Gly Lys Asp Pro Val Ser Tyr Cys Ser Pro Val Gly Pro
            20                  25                  30
Leu Leu Ala Ser Gln Leu Thr Phe Leu Cys Val Gly Ala Asp Ile Phe
        35                  40                  45
Ser Arg Pro Gly Glu Val Leu Pro Pro Phe Pro Lys Pro Thr His Gly
    50                  55                  60
Leu Pro Gly Ser Gly Leu Ser Asp Tyr Thr Thr Ile Asn Gln Met Ile
65                  70                  75                  80
Ala Asn Ile Pro Pro Asn Ala Pro Asp His Asp Ile Glu Gly Ala Arg
                85                  90                  95
Ser Arg Gly Leu Arg Asn Gly Thr Arg Val Pro Phe Asp Pro Asn Gln
            100                 105                 110
Gln Ala Lys Thr Val Thr Cys Ser Gly Gly Glu Asn Asn Tyr His Pro
        115                 120                 125
Ser Gly Thr Arg Gly Phe Thr Asn Arg Glu Phe Ala Cys Leu Gln Thr
    130                 135                 140
Phe Pro Leu Asp Tyr Arg Phe Gly Ala Arg Glu Val Arg Arg Gln Ile
145                 150                 155                 160
Gly Asn Ala Val Pro Pro Ala Leu Ser Lys Ala Ile Tyr Arg Glu Ile
                165                 170                 175
Ile Lys Ser Leu Gln Arg Thr Asp Glu Gln Glu Leu Lys Gly
            180                 185                 190
```

<210> 39659
<211> 272
<212> PRT
<213> A.fumigatus

<400> 39659

```
Tyr Asp Thr Ala Arg Leu Val Phe Leu Asp Thr Leu Gly Cys Gly Leu
1               5                   10                  15
```

```
Glu Ala Leu Arg Phe Lys Glu Cys Ala Lys Leu Leu Gly Pro Val Val
            20                  25                  30
Glu Gly Thr Val Val Pro Asn Gly Thr Arg Val Pro Gly Thr Pro Tyr
        35                  40                  45
Gln Leu Asp Pro Val Asn Gly Ala Phe Asn Ile Gly Ala Met Ile Arg
    50                  55                  60
Trp Leu Asp Tyr Asn Asp Cys Trp Leu Ala Ala Glu Trp Gly His Pro
65                  70                  75                  80
Ser Asp Asn Leu Gly Gly Ile Leu Ala Val Ala Asp Trp Ile Ser Arg
                85                  90                  95
Thr Asn Arg Ala Gly Gly Asn Leu Gly Asn Gly Lys Ile Val Lys Val
            100                 105                 110
Lys Glu Val Leu Glu Ala Met Ile Lys Ala His Glu Ile Gln Gly Val
        115                 120                 125
Leu Ala Leu Glu Asn Ser Tyr Asn Arg Val Gly Leu Asp His Val Val
    130                 135                 140
Leu Val Lys Val Ala Thr Thr Ala Val Val Ala Lys Met Leu Gly Leu
145                 150                 155                 160
Asn Glu Lys Gln Thr Ala Asp Ala Ile Thr Gln Ala Trp Val Asp Gly
                165                 170                 175
Gln Ser Leu Arg Thr Tyr Arg His Ser Pro Asn Thr Met Ser Arg Lys
            180                 185                 190
Ser Trp Ala Ala Gly Asp Ala Cys Gln Arg Ala Val Asn Leu Val Leu
        195                 200                 205
Lys Val Gln Lys Gly Glu Gly Gly Val Pro Thr Val Leu Ser Ala Pro
    210                 215                 220
Val Trp Gly Val Tyr Asp Val Leu Phe Lys Gly Asn Lys Phe Lys Phe
225                 230                 235                 240
Gln Arg Pro Tyr Gly Ser Tyr Val Met Glu Asn Val Leu Phe Lys Val
                245                 250                 255
Ser Tyr Pro Gly Lys Phe Val Glu Val Arg Ile Arg Arg Val His Tyr
            260                 265                 270
```

<210> 39660
<211> 100
<212> PRT
<213> A.fumigatus

```
<400> 39660
Pro Leu Thr Ala Glu Phe His Ser Gln Thr Ala Ile Glu Cys Ala Gln
1               5                   10                  15
Ile Ile Asn Arg Lys Leu Ala Ala Met Gly Lys Ser Ala Lys Asp Ile
            20                  25                  30
Lys Glu Ile Thr Asn Arg Thr His Glu Ala Cys Ile Arg Ile Ile Asp
        35                  40                  45
Lys Gln Phe Lys Ala Met Asp Asn Phe Ala Asp Arg Asp His Cys Val
    50                  55                  60
Gln Val Cys Leu Gln Leu Glu Phe Asp Leu Gly Ser Phe Ala Asp Leu
65                  70                  75                  80
Asp Gln Val His Gly Cys His His Ala Gly Leu Gln Pro Pro Asp Arg
                85                  90                  95
Arg Gly Leu Arg
            100
```

<210> 39661
<211> 353

<212> PRT
<213> A.fumigatus

<400> 39661
Pro Met Phe Gly Lys Thr Asn Trp Ser Asn Lys Gly Gly Leu Pro Leu
1 5 10 15
Asn Phe Pro Arg Ala Phe Phe Ser Arg Ile Glu Leu Val Phe Lys Lys
20 25 30
Leu Leu Lys Ser Ser Leu Ser Arg Pro Ser Phe Asp Arg Asn Val Glu
35 40 45
Ser Gln Gly Asp Leu Tyr Pro Lys Trp Ser Asn Arg Thr Val Trp Ile
50 55 60
Val Asn Glu Ser Thr Glu Val Pro Leu Ser Phe Val Lys Arg Phe Ile
65 70 75 80
Asn Ile Arg Phe Thr Asn Cys Cys His Val Glu Gln Asp Leu Gln Lys
85 90 95
Arg Asn Arg Pro Asn Asp Leu Phe Cys Arg Leu Lys Glu Asn Leu Lys
100 105 110
Ser Ser Gln Ala Ala Val Glu Tyr Leu Ser Phe Glu Asp Ser Asp Glu
115 120 125
Gly Phe Ala Ile Gly Ser Met Ser Leu Arg His Ser Trp Arg Gly Glu
130 135 140
Thr Arg Pro Phe Gly Ser Ala Asp Ala Asn Ser Gln Pro Gln Ser Pro
145 150 155 160
Ile Ile Val Leu Asp Ala Asp Pro Val Ile Asp Leu Thr Gly Ile Glu
165 170 175
Lys Glu Asp Ala Arg Val Gln Lys Lys His Arg Lys Tyr Thr Phe Gly
180 185 190
Asp Gly Phe Cys Gly Ala Gly Gly Val Ser Cys Gly Ala Ser Lys Ala
195 200 205
Gly Leu His Ile Lys Trp Ala Phe Asp Lys Ser Glu Asn Ala Ile Thr
210 215 220
Thr Tyr Arg Leu Asn Phe Ala Thr Ala Val Cys Glu Ala Cys Asp Ile
225 230 235 240
Phe Cys Phe Leu Thr Asn Lys Pro Glu Glu Leu Lys Val Asp Val Ser
245 250 255
His Gly Ser Pro Pro Cys Gln Thr Phe Ser Pro Ala His Thr Ile Asn
260 265 270
Ser Val Asn Asp Asp Asp Asn Ser Ala Cys Ile Phe Ser Cys Ala Asp
275 280 285
Met Ile Lys Lys Ser Arg Pro Arg Val His Thr Met Glu Glu Thr Ser
290 295 300
Gly Leu Phe Asp Arg His Lys Glu Thr Phe His Arg Val Ile Gln Asp
305 310 315 320
Phe Ile Glu Ile Gly Tyr Ser Val Arg Trp Arg Ile Leu Asn Cys Met
325 330 335
Asp Tyr Gly Val Pro Gln Ser Arg Arg Arg Leu Ile Ile Ile Ala Ser
340 345 350
Gly

<210> 39662
<211> 115
<212> PRT
<213> A.fumigatus

<400> 39662
Val Phe His Leu Pro Ser Phe Pro Ser Pro Phe Ile Met Ser Ala Ser
1 5 10 15
Cys Ser Ala Leu Arg Arg Leu Thr His Arg Ser Pro Arg Thr Leu Pro
20 25 30
Ser Arg Ile Val Ser Val Ser Arg Pro Ser Ser Arg Ile Val Ala Arg
35 40 45
Asn Ser Phe Thr Lys Ala Val Asn Pro Cys Ala Pro Arg Val Ser Gln
50 55 60
Phe Ser Thr Met Thr Ala Leu Gln His Gly Ala Pro Ala Ala Pro Thr
65 70 75 80
Glu Arg Asn Tyr Asp Pro Glu Ile Lys Asp Met Ala Asp Tyr Val His
85 90 95
Asn Tyr Ser Val Asn Ser Asp Leu Ala Val Trp Val His Tyr Pro Leu
100 105 110
Phe Ser Leu
115

<210> 39663
<211> 224
<212> PRT
<213> A.fumigatus

<400> 39663
Gln Pro Ser Ser Thr Leu Arg Pro Pro Leu Ser Ala Arg Arg Leu Ser
1 5 10 15
Thr Gly Ser Trp Gln Pro Trp Ala Arg Ala Pro Arg Thr Ser Arg Arg
20 25 30
Ser Pro Thr Gly Pro Met Arg Leu Ala Ser Gly Leu Leu Thr Ser Ser
35 40 45
Ser Arg Leu Trp Thr Thr Leu Arg Thr Val Thr Thr Val Phe Arg Tyr
50 55 60
Val Phe Ser Leu Asn Ser Thr Ser Glu Ala Leu Leu Ile Leu Ile Lys
65 70 75 80
Tyr Met Val Ala Thr Met Leu Ala Phe Asn Arg Leu Thr Ala Glu Asp
85 90 95
Tyr Ala Asp Gly Ser Glu Ala Ala Thr Ser Pro Leu Val Glu Asp Leu
100 105 110
Arg Lys Arg Ile Arg Cys Val Glu Asp Pro Gln Phe Thr Arg Asp Tyr
115 120 125
His Asp Pro Ala Lys Arg Thr Ile Pro Asn Val Val Thr Val Thr Leu
130 135 140
Asn Asp Gly Thr Val Leu Glu Glu Val Val Val Glu Ala His Leu Gly
145 150 155 160
His Arg Phe Arg Arg Glu Glu Ala Lys Pro Glu Ile Leu Ser Lys Tyr
165 170 175
Lys Arg His Leu Glu Ala His Phe Asp Gln Ala Arg Ile Asp Glu Phe
180 185 190
Phe Lys Ile Gly Leu Asp Arg Ser Ser Leu Glu Asn Tyr Asp Val Asp
195 200 205
Lys Tyr Val Asp Leu Tyr Val Lys Asp Lys Met Val Val Ala Ala Gln
210 215 220

<210> 39664
<211> 148
<212> PRT

<213> A.fumigatus

<400> 39664
Glu Ser Asp Pro Arg Asp Tyr Phe Leu Thr Ile Phe Thr Leu Leu Glu
1 5 10 15
Thr Leu Met Thr His Glu Leu Thr Leu Asp Asp Val Gln Val Ala Thr
20 25 30
Ala Pro Thr Leu Arg Thr Phe Leu Cys Leu Pro Leu Phe Leu Ile Ala
35 40 45
Ser Gly Ile Gln His Asp Cys His His Tyr Leu Phe Ser Leu Lys Lys
50 55 60
Tyr Thr Leu Pro Thr His Pro Met Phe Gln Arg Ile Val Cys Pro His
65 70 75 80
Tyr Thr Ala Glu Cys Val Ile Tyr Leu Ser Leu Ala Leu Leu Ala Ala
85 90 95
Pro Asn Gly Glu Met Val Asn Lys Thr Leu Leu Ser Cys Phe Ala Phe
100 105 110
Val Thr Val Asn Leu Gly Val Thr Ala Thr Ile Ser Lys Arg Trp Tyr
115 120 125
Glu Gln Lys Phe Gly Pro Glu Ser Val Lys Glu Arg Trp Asn Met Ile
130 135 140
Pro Gly Leu Phe
145

<210> 39665
<211> 73
<212> PRT
<213> A.fumigatus

<400> 39665
Gly Ser Ala Arg Cys Val Ser Val Ser Leu Phe Phe Phe Phe Ser Gly
1 5 10 15
Ser Asp Leu Met Ala Val Gly Gly Ser Leu Gly Trp Lys Val Arg Gly
20 25 30
Ser Leu Asn Ala Asp Phe Glu Lys Ala Ala Tyr Glu Leu Glu Pro Ser
35 40 45
Thr Thr Ala Asn Pro Lys Tyr Val Glu Val Lys Thr Gly Phe Gly Tyr
50 55 60
His Ile Ile Met Val Glu Gly Arg Lys
65 70

<210> 39666
<211> 212
<212> PRT
<213> A.fumigatus

<400> 39666
Arg Trp Lys Val Thr Thr Ala Pro Leu Pro Arg Trp Thr Gln Leu Ser
1 5 10 15
Arg Arg Arg Leu Gln Thr Trp Pro Ser Ala Leu Thr Thr Ser Asn Thr
20 25 30
Leu Ile Ala Ser Pro Leu Pro Ser Trp Leu Val Ser Pro Ile Ile Asn
35 40 45
Pro Arg Leu Asp Ser Leu Asp Ile Phe Ala Asp Ala Pro His Gly Ala
50 55 60
Pro Asn His Val Leu Val Asn Glu Tyr Cys Pro Gly Gln Gly Ile Met

65 70 75 80
Pro His Glu Asp Gly Ala Ala Tyr Tyr Pro Leu Val Ala Thr Val Ser
85 90 95
Leu Gly Ala Pro Ile Val Leu Asp Leu Tyr Pro Lys Pro Gly Ser Ser
100 105 110
Asn Ala Gly Asn Ser Ser Gly Val Gly Gly Ala Arg Gln Pro Gln Tyr
115 120 125
Arg Ile Leu Gln Glu Arg Arg Ser Leu Leu Val Thr Arg Arg Ser Ile
130 135 140
Tyr Thr Asp Phe Leu His Gly Ile Ala Glu Thr Arg Lys Asp Asp Asn
145 150 155 160
Leu Ser Ala Glu Ser Ile Cys Asn Trp Asn Leu Leu Arg Glu Pro Asp
165 170 175
Arg Tyr Glu Cys Gly Trp Tyr Glu Arg Glu Thr Arg Ile Ser Leu Thr
180 185 190
Tyr Arg Asp Val Ile Lys Val Ser Lys Leu Gly Asn Thr Met Lys Phe
195 200 205
Leu Gly Gly Arg
210

<210> 39667
<211> 492
<212> PRT
<213> A.fumigatus

<400> 39667
Tyr Phe Ser Pro Leu Ser Tyr Gln Lys Val Arg His Asn Ser Glu Ser
1 5 10 15
Ala Val Phe Leu Leu Pro Phe Ser Tyr Arg Val Thr Ser Gly Ala Thr
20 25 30
Ala Thr Leu Leu Pro Arg Ile Arg Thr Lys Ser Ser Leu Ile Arg Asn
35 40 45
Phe Glu Ser Ser Ala Val Val Glu Arg Pro Arg Glu Lys Leu Arg Lys
50 55 60
Thr Gly Ile Phe Ala Ser Leu Gly Val Val Glu His Gln Leu Pro Arg
65 70 75 80
Ala Thr Ala Gly Gly Phe Asp Tyr Tyr Glu Tyr Ser Leu Ser Ala Thr
85 90 95
Ala Ser Glu Asn Asp Asp Arg Asn Thr Gln Gln Ser Ile Thr Thr Ala
100 105 110
Met Ser Asp Val Asp Ala Val Ser Ser Leu Pro Ala Ala Leu Arg Ala
115 120 125
Gly Gln Asn Ala Thr Ala Val Thr Val Asn Pro Arg Ser Ala Ser Gly
130 135 140
Ser Leu Ser Ser Lys Arg Val Ser Pro Ser Pro His Arg Arg Gly Asp
145 150 155 160
Asn Ala Arg Val Lys Glu Val Asp Ser Ala Ser Gly Glu Gly Asp Gly
165 170 175
Pro Pro Ser Pro Lys Ala Asp Ser Glu Ala Glu Thr Ile Ile Gln Ser
180 185 190
Gly Arg Glu Ser Leu Ser Pro Glu Lys Arg Arg Lys Tyr Ile Gln His
195 200 205
Glu Pro Arg Arg Leu Asp Val Gln Val Asp Asn Ser Asp Thr Val Gly
210 215 220
Asn Ser Ala Leu Pro Asp Asp Thr His Ile Arg Lys Arg Asn Arg Ser
225 230 235 240

```
Ile Asp Glu Ser Ile Ala Glu Arg Asp Arg Gly Phe Ser Pro Glu Leu
                245                 250                 255
His Ser Arg Thr Ala Ile Ser Pro Ser His Val Lys Ile Glu Lys Ala
            260                 265                 270
Glu Glu Leu Gln Pro Ala Leu Asn Asp Leu His Ser Ala Leu Pro Ser
        275                 280                 285
His Ser Thr Glu Ala Val Pro Gly Gly Gln Asn Val His Ser Ser Arg
    290                 295                 300
Lys Arg Ser His Ser Asp Gly Val Asp Ser Glu Arg Asp Arg Thr Gln
305                 310                 315                 320
Leu Ser Arg His Thr Thr Ala Ser Arg Asp Lys Glu Arg Arg Asp Ile
                325                 330                 335
Asn Gly Ile Ser Leu Pro Pro Pro Glu Ser Ile Asp Arg Ser Val Ser
            340                 345                 350
Pro Ile Arg Ser Ala His Lys Arg Thr Ala Ser Gly Pro Gln Leu Gly
        355                 360                 365
Gly Ser Asp Leu Gln Lys Lys Arg Lys Thr Thr Thr Pro Leu Ile Thr
    370                 375                 380
Gly Phe Gln Arg Gln Ser Ser Glu Asp Arg Leu Ser Val Ser Ser Ser
385                 390                 395                 400
Thr Ser Gly Ser Pro Leu Pro Ser Ser Gln Leu Arg Lys Leu Ala Gly
                405                 410                 415
Val Asp Gly Ala Ser Ala Ser Pro Ala Arg Pro Thr Gly His Lys Lys
            420                 425                 430
Gln Arg Asp Gln Asn Gly Arg Thr Arg Leu Ala Arg Ala Cys Ala Ala
        435                 440                 445
His Glu Leu Glu Ala Thr Met Ala Lys Pro Ala Glu Arg Pro Glu Asp
    450                 455                 460
Leu Asn Val Gly Asp Asn Ala Gly Asn Thr Pro Leu Gln Ile Ala Ala
465                 470                 475                 480
Leu Arg Arg Val Cys Ala Asp Cys Glu Ile Ser Ser
                485                 490
```

<210> 39668
<211> 93
<212> PRT
<213> A.fumigatus

```
<400> 39668
Thr Ile Pro Gly Ser Ser Lys Ser Thr Pro Gln Gln Arg Ser Cys Gln
1               5                   10                  15
Lys Asn Asn Ser Gln Arg Ile Arg Ala Pro Ile Ser His His Leu Gln
            20                  25                  30
Leu His Arg Ala Val Arg Thr Pro Cys Pro Ile Pro Cys Asn Thr Arg
        35                  40                  45
Leu Gly Ser Asp Ser Ala Phe Ser Pro Thr Val Tyr Gly Tyr Thr Val
    50                  55                  60
Ile Thr Met Leu Thr Pro Leu Ala Ala Thr Leu Thr Asn Pro Leu Thr
65                  70                  75                  80
Pro Asp Arg Thr Thr Phe Leu Thr Asn Lys Leu Tyr Lys
                85                  90
```

<210> 39669
<211> 337
<212> PRT
<213> A.fumigatus

<400> 39669
Asp Arg Ser Trp Leu Pro Ser Val Cys His Gly Val Cys Leu Ala Val
1 5 10 15
Ala Gly Val Lys Met Leu Ser Ser Arg Ala His Tyr Met Asp Ile Pro
20 25 30
Asp Ser Gly Pro Gly Val Glu His His Trp Gly Tyr Tyr Asn Arg Gln
35 40 45
Leu Pro Cys Thr Thr Asp Lys Gly Lys Cys Asp Tyr Leu Asp Thr Val
50 55 60
Tyr His Ser His Asp Leu Ser Ile Leu Tyr Ser Ala Ile Leu Trp Gly
65 70 75 80
Val Ile Leu Gly Val Leu Val Leu Cys Ala Leu Arg Arg Leu Ile Arg
85 90 95
Val Arg Arg Thr Ser His Pro Cys Pro Gln Asp Ala Glu Thr Gly Lys
100 105 110
Asn Pro Pro Gln Ser Phe Ile Tyr Arg Cys Gln Gln Ser Leu Lys Ser
115 120 125
Ala Tyr His Arg His Leu Leu Arg Gly Trp Leu Pro Gly Ile Phe Gly
130 135 140
His Thr Thr Gly Phe Asn Ile Leu Val Leu Leu Ile Leu Ile Ala Tyr
145 150 155 160
Leu Thr Ile Phe Ser Phe Val Gly Ile Val Tyr Lys Thr Trp Tyr Ser
165 170 175
Pro Val Lys Gly Tyr Pro Asn Leu His Gln Thr Arg Val Gly Leu Gly
180 185 190
Pro Trp Ala Asp Arg Leu Gly Leu Leu Ala Tyr Ala Leu Thr Pro Leu
195 200 205
Ala Val Leu Leu Ser Thr Arg Glu Ser Leu Leu Ser Leu Leu Thr Gly
210 215 220
Ile Pro His His His Phe Leu Phe Leu His Arg Trp Leu Gly Tyr Ile
225 230 235 240
Ile Tyr Ile Gln Ala Val Leu His Thr Ile Gly Trp Thr Val Ile Glu
245 250 255
Gly Lys Leu Tyr Gln Pro Gln Pro Ser Thr Trp Asn Glu Phe Ile Ala
260 265 270
Gln Glu Tyr Met Ile Trp Gly Val Val Ala Met Ile Leu Leu Ser Phe
275 280 285
Leu Val Phe Cys Ser Pro Gln Trp Cys Val Arg Leu Thr Gly Val Arg
290 295 300
Ile Pro Pro Pro Val Ala Leu Cys Ser Gly His Gly Leu Cys Ser Ala
305 310 315 320
Pro Ala Gly Gly His Trp Gly Leu Leu Phe Cys Trp Tyr Asp Arg Leu
325 330 335
Arg

<210> 39670
<211> 162
<212> PRT
<213> A.fumigatus

<400> 39670
Pro Cys Val Thr Asn Ser Ser His Ser Gln Lys Arg Ser Ala Gln Asn
1 5 10 15
Ser Arg Ile Thr His Arg Asn Gln Arg Ser Ala Ile Ser Ser Ser Arg

```
            20                  25                  30
Val Leu Met Ala Leu Arg Cys His Ala Ser Met Ser Phe Leu Val Phe
        35                  40                  45
Lys Ile Thr Asn Ala Ser Gly Tyr Ala Ser Thr Ser Ser Ala Ala Lys
    50                  55                  60
Asn Asp Ala Ala Val Ser Thr Thr Ala Ser Gln Cys Pro Ser Ser Ala
65                  70                  75                  80
Ser Asn Ser Ala Arg Asp Thr Arg Asn Ser Pro Ser Ser Phe Pro Phe
                85                  90                  95
His Phe Ala Arg Ala Ser Phe Ala His Pro Ser Met Tyr Pro Ala Phe
            100                 105                 110
Ser Ser Lys Glu Met Ser His Pro Trp Tyr Gly Val Arg Pro Ser Cys
        115                 120                 125
Arg Ser Ala Thr Ala Arg Leu Ser Val Ala Asp Arg Gly Arg Pro Thr
    130                 135                 140
Gln Ile Thr Cys Met Gly Leu Val Arg Val Arg Ala Gly Gly Phe Gly
145                 150                 155                 160
Arg Leu
```

<210> 39671
<211> 83
<212> PRT
<213> A.fumigatus

<400> 39671

```
Leu Ser His Met Gln Asp Ile Gln Ser Pro Val Pro Thr Pro Asp Lys
1               5                   10                  15
Arg Pro Arg Arg Leu Val Cys Ile Ala Ser Pro Tyr Ser Thr Ser Leu
            20                  25                  30
Ile Glu Asn Gln Tyr Phe Ala Asn Ser Asp Asn Glu Gln Pro Val Pro
        35                  40                  45
Tyr Thr Leu Arg Arg Gln Ala Gly Glu Ala Ile Phe Asp Met Ile Leu
    50                  55                  60
Pro Lys Asn Arg Tyr Asp Glu Ser Asp Ser Glu Gly Pro Lys Ala Val
65                  70                  75                  80
Glu Leu Ile
```

<210> 39672
<211> 88
<212> PRT
<213> A.fumigatus

<400> 39672

```
Leu Tyr Asn Leu Pro Gln Leu Thr Ile Ile Phe Phe Asn Lys Ser Asn
1               5                   10                  15
Asn Pro Leu Glu Thr Thr Ser Ser Pro Met Thr Asn Arg Pro Thr Leu
            20                  25                  30
Arg Arg Pro Leu Ile Val Gly Arg His Gly Ser Gln Val Trp Phe Thr
        35                  40                  45
Leu Glu Val His His Thr Leu Phe Ile Tyr Phe Ser Lys Thr Pro Arg
    50                  55                  60
Ser Ser Asp Arg Ala Ala Val Val Ile His Ala Phe Arg Ser Ser Asp
65                  70                  75                  80
Thr Thr Gly Gln Glu Ile Pro Arg
```

85

<210> 39673
<211> 199
<212> PRT
<213> A.fumigatus

<400> 39673
Arg Pro Thr Leu Pro Val Glu Asn Gly Ile Asn Arg Val Met Leu Arg
1 5 10 15
Ser Thr Thr Arg Ala Gly Gln Val Thr Leu Thr Ala Thr Ser Asp Gly
20 25 30
Leu Lys Pro Ala Thr Ile Ser Leu Asn Thr Lys Pro Phe Ala Ser Lys
35 40 45
Gly Gly Leu Ser Thr Val Ile Pro Gly Ser Asp Leu Pro Phe Val Leu
50 55 60
Ser Arg Gly Pro Thr Pro Ser Ser Glu Ser Tyr Thr Ile Ser Arg Lys
65 70 75 80
Ala Val Glu Gly Leu Asn Val Thr Ala Gly Cys Asp Thr Glu Asn Met
85 90 95
Ile Asn Ser Tyr Asp Asp Asp Glu Glu Thr Glu Trp Ser Cys Asp Gly
100 105 110
Asp Lys Ser Ser Thr Trp Ile Lys Tyr Ser Trp Asp Ser Pro Val Asn
115 120 125
Val Ser Gln Met Val Met Lys Leu His Ser Phe Arg Thr Thr Lys Tyr
130 135 140
Pro Val Gln Ile Ser Val Asp Asp Thr Val Val Tyr Glu Gly Val Thr
145 150 155 160
Pro Thr Ser Leu Gly Tyr Val Thr Leu Asp Leu Asn Ala Thr Val Gly
165 170 175
Gln Ser Val Thr Val Ala Ser Glu Asp Ser Asp Leu Gly Ile Ile Glu
180 185 190
Ala Glu Ile Tyr Thr Pro Ala
195

<210> 39674
<211> 70
<212> PRT
<213> A.fumigatus

<400> 39674
Gly Leu Cys Ser Pro Ser Lys Ser Ser Leu Val Cys Val Leu Val Ser
1 5 10 15
Gly Leu Leu Thr Thr Glu Arg Leu Ser Arg Val Leu Asp Ile Leu Ala
20 25 30
Ala Leu Lys Phe Asn Gln Phe Thr Asp Leu Ala Val Ser Leu Ala Ser
35 40 45
Ile Ser Leu Val Leu Gly Thr Lys His Ala Val Leu Leu Gln Leu Ser
50 55 60
Arg Leu Tyr Leu Thr Ser
65 70

<210> 39675
<211> 69
<212> PRT
<213> A.fumigatus

<400> 39675
Leu Tyr Ser Val Glu Asn Val Asn Asp Thr Glu Glu Ile Asn Pro Asp
1 5 10 15
Ser Leu Arg Ala Ala Ala Ser Gly Ala Gly Ser Gly Asn Arg Ser Gly
20 25 30
Lys Gln Phe Gly Ala Gly Gln Asp Thr Lys Val Thr Ala Ser Cys Asn
35 40 45
Cys Ser Ser Pro Tyr Phe Ile Asn Phe Ile Asp Gly Leu Glu Ser Leu
50 55 60
Tyr Ser Val Gln Tyr
65

<210> 39676
<211> 94
<212> PRT
<213> A.fumigatus

<400> 39676
Gly Ile Glu Leu Leu Lys Thr Gln Gly Leu Thr Pro Val Thr Pro Glu
1 5 10 15
Gln Gly Glu Thr Val Ala Arg Arg Met Asn Ala Ser Tyr Ile Glu Cys
20 25 30
Ser Ser Lys Glu Met Arg Gly Val Asp Glu Val Phe Ala Leu Ala Val
35 40 45
Asp Thr Val Val Ser Ala Glu Glu Gln Asp Trp Met Gly Asn Ser Gln
50 55 60
Ser Asn Gly Thr Ser Ser Lys Phe Gly Gly Gly Gly Ser Gly Leu Arg
65 70 75 80
Ser Gly Ser Lys Lys Val Lys Lys Arg Thr Cys Lys Ile Leu
85 90

<210> 39677
<211> 132
<212> PRT
<213> A.fumigatus

<400> 39677
Phe His Lys Met Lys Ser Leu Ala Gly Ser Phe Val Gly Leu Leu Phe
1 5 10 15
Leu Leu Ser Ala Pro Val Thr Ser Val Tyr Ala Ala Ser Glu Pro Thr
20 25 30
Gly Lys Lys Asp Gly Leu Ser Pro Cys Val Val Arg Ser Pro Ala Thr
35 40 45
Gly Leu Tyr Tyr Asp Leu Asn Ala Ile Ser Val Pro Arg Pro Asp Pro
50 55 60
Ser Asp Gly Lys Lys Ser Asn Lys Asn Ala Pro Arg Glu Ser Trp His
65 70 75 80
Ala Lys Gly His Asp Tyr His Ala Asn Phe Thr Leu Asn Ile Cys Ala
85 90 95
Pro Val Val Glu Asp Ile Lys Asp Val Val Gly Val Glu Arg Asp Arg
100 105 110
Trp Lys Asn Val Ser Ala Tyr Tyr Glu Lys Glu Gly Lys Ile Tyr Ser
115 120 125
Ile Gly Tyr Val
130

<210> 39678
<211> 136
<212> PRT
<213> A.fumigatus

<400> 39678
Ser Ala Thr Asp Gly Arg Met Ser Ala Pro Thr Thr Arg Lys Lys Gly
1 5 10 15
Arg Tyr Thr Pro Leu Gly Thr Phe Asp Lys Arg Thr Val Arg Tyr Ser
20 25 30
Met Cys Arg Leu Ile Val Leu Tyr Arg Glu Gln Ala Ala Gln Pro Leu
35 40 45
Phe Arg Gly Arg Lys Leu Val Leu Asn Tyr Thr Asn Gly Ser Pro Cys
50 55 60
Pro Gly Glu Gln Ile Gly His Ser Ser Arg Asn Lys Ser Thr Ile Met
65 70 75 80
Ser Phe Leu Cys Asp Arg Asp Ala Leu Ser His Gln Ala Val Ala Ser
85 90 95
Phe Val Gly Thr Met Asp Gln Cys Thr Tyr Phe Phe Glu Val Arg Ser
100 105 110
Ala Ala Ala Cys Gly Ser Ile Gly His Ala His Gly Asp Gly Leu Gly
115 120 125
Pro Gly Gly Val Phe Gly Val Met
130 135

<210> 39679
<211> 98
<212> PRT
<213> A.fumigatus

<400> 39679
Val His Leu Thr Phe Pro Leu Ser Asp Arg Ile Leu Ile Leu Ser Ile
1 5 10 15
Leu Ser Ala Leu Ile Ala Val Ala Ala Tyr Leu Val Gly Gly Cys Ala
20 25 30
Tyr Gln Arg Thr Val Met His Gln Arg Gly Trp Arg Gln Cys Pro Asn
35 40 45
Tyr Ser Leu Trp Ala Gly Ile Phe Asp Phe Val Lys Val Ser Ala Leu
50 55 60
Ala Leu Ile Pro Phe Arg Ser Ser Arg Ile Arg Ser Gly Arg Gly Ser
65 70 75 80
Leu Ser Pro Tyr Lys Glu Phe Gly Ser Pro Arg Leu Pro Ile Ser Arg
85 90 95
Thr Asp

<210> 39680
<211> 494
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (14),(15)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39680
Gly Gly Asn Thr Gly Lys Trp Phe Leu Pro Pro Gly Gly Xaa Xaa Leu
1 5 10 15
Cys Asn Leu Ala Ile Ser Arg Arg Glu Gly Glu Tyr Thr Leu Arg Lys
20 25 30
Arg Lys Trp Asp Pro His Pro Leu Trp Ser Pro Glu Ser Gly Tyr Met
35 40 45
Lys Leu Lys Arg Gln Ile Glu Asp Phe Ser Ala Thr Leu Pro Ser His
50 55 60
Leu Ala Phe Thr Phe Glu Asn Leu Gln Val His Ala Ala Asp Lys Ile
65 70 75 80
Ala Asn Gln Phe Leu Tyr Leu His Ile Ile Ile His Gln Asn Met Leu
85 90 95
Phe Leu Asn Gln Phe Ala Ile Pro Leu Ser Pro Gly Gly Arg Pro Pro
100 105 110
Lys Asp Met Pro Lys Ser Phe Leu Ser Asn Ala Gly Arg Ala Ala Val
115 120 125
Glu Ala Ala His His Ile Ser Val Leu Ile Asp Arg Ala Ser Ala Tyr
130 135 140
Pro Leu Thr Val Pro Phe Ala Gly Tyr Ser Ala Tyr Ser Ala Ser Thr
145 150 155 160
Val His Ile Trp Gly Ile Phe Ser Lys Asn Ala Gln Leu Glu Ala Arg
165 170 175
Ser Lys Glu Asn Leu Arg His Thr Tyr Arg Tyr Leu Asn Lys Met Lys
180 185 190
Lys Tyr Trp Gly Met Phe His Tyr Met Val Glu Ser Ala Lys Asp Arg
195 200 205
Tyr Arg Gln Phe Ala Asp Ala Ala Ile Lys Gly Thr Val Val Thr Gln
210 215 220
Asn Gly Asn His Val Thr Pro Met Phe Gln Tyr Gly Asp Trp Phe Asp
225 230 235 240
Lys Tyr Pro His Gly Val Ser Arg Leu His Trp Glu Asp Pro Asp Ala
245 250 255
Arg Gln Lys Asp His Ala Asp Asp Gly Val Met Gly Gln Lys Pro Glu
260 265 270
Leu Gln Ser Val Glu Asp Phe Phe Ala Ser Leu Ser Pro Ser Val Pro
275 280 285
Gln His Ser Thr Pro Arg Arg Pro Asp Pro Arg Arg Asp Ser Lys Ser
290 295 300
Ile Ala Pro Pro Asp Gln Ala Ile Pro Pro Gln Ser Val Val Asp Val
305 310 315 320
Asn Met Asn Asn Ala Pro Gly Met Leu Gly Thr Ser Ser Thr Gly Phe
325 330 335
Pro His Pro Thr Met Tyr Asp Gln Gln Gly Gly Thr Thr Ser Leu Gly
340 345 350
Pro Ala Gly Phe Asp Phe Asn Ile Pro Gln Asp Gln Leu Pro Leu Leu
355 360 365
Asp Arg Gln Phe Val Tyr Gly Ser Phe Ala Gly Ile Asp Pro Ser Pro
370 375 380
Ala Ala Phe Ala Ala Val Asp Thr Pro Gly Ile Ser Thr Pro Gly Glu
385 390 395 400
Ala Gly Pro His Thr Asn Gln Asp Thr Ser Ala Ala Leu Phe Thr Gly
405 410 415
His Met Asp Pro Asn Ala Pro Ser Gly Thr Gly Glu Tyr Tyr Gln Pro
420 425 430

```
Ser Ala Trp Phe Leu Pro Phe Asn Leu Asp Pro Val Gly Ala Gly Val
        435                 440                 445
Gly Leu Asp Pro Asn Pro Ala Ala Ser Val Pro Ser Ser Glu Asn Ala
    450                 455                 460
Thr Pro Asp Leu Ser Ala Phe Gly Gly Thr Gly Ile Pro Leu Gly Gly
465                 470                 475                 480
Tyr Asp Leu Gly Met Thr Gly Met Asn Gln Arg Ser His Arg
                485                 490
```

<210> 39681
<211> 108
<212> PRT
<213> A.fumigatus

<400> 39681

```
Val Tyr Phe His Ser Ile Gly Ala Phe Gly Ile Ile Phe Gly Leu Pro
1               5                   10                  15
Cys Leu Leu Tyr Ala Phe Thr Phe Phe Cys Asn Asp Ile Ser Gly Cys
            20                  25                  30
Pro Ala Pro Ser Leu Leu His Pro Ser Thr Leu Ser Ile Asp Lys Leu
        35                  40                  45
Glu Gln Glu Val Gly Trp Pro Glu Asp Gly Ile Lys Ala Leu Tyr Asp
    50                  55                  60
Thr Gln Val Thr Met Trp Val Leu Ser Tyr Tyr Leu Leu Ser Leu Leu
65                  70                  75                  80
Met Gln Val Phe Leu Pro Gly Thr Glu Val Glu Gly Thr Glu Leu Ala
                85                  90                  95
Cys Gly Gly Arg Leu Lys Tyr Lys Phe Asn Gly Lys
            100                 105
```

<210> 39682
<211> 103
<212> PRT
<213> A.fumigatus

<400> 39682

```
Gln Phe Ala Ala Phe Leu Ser Ala Val Leu Ile Leu Ser Gly Cys Ala
1               5                   10                  15
Val Gly Thr Tyr Leu Tyr Gly Thr Glu Phe Ala Leu Trp Thr Phe Leu
            20                  25                  30
Trp Asp Asn Tyr Val Gln Val Ile Thr Ala Asn Leu Ile Ile Cys Thr
        35                  40                  45
Ala Ile Ala Ile Phe Val Tyr Leu Arg Ser Phe Ser Val Pro Ala Pro
    50                  55                  60
Gly Gln Leu Asn Pro Glu Leu Arg Gln Leu Ala Pro Gly Gly His Thr
65                  70                  75                  80
Gly Asn Val Leu Tyr Asp Phe Phe Asp Trp Leu Gly Ser Leu Thr Pro
                85                  90                  95
Gly Ser Val Ser Pro Arg Gly
            100
```

<210> 39683
<211> 229
<212> PRT
<213> A.fumigatus

<400> 39683
Asp Asp Asp Ile Met Arg Phe Phe Asp Gly Gly Gln Pro Val Arg Asn
1 5 10 15
His His Gly Arg Pro Ala Leu Arg Arg Leu Leu Gln Arg Arg Leu His
20 25 30
Gln Pro Leu Gly Phe Cys Val Lys Ser Gly Ser Arg Leu Val Gln Gln
35 40 45
Gln Asp Phe Arg Val Phe Asp Asp Gly Pro Gly Asn Arg Asp Ala Leu
50 55 60
Leu Leu Ala Pro Gly Glu Arg Glu Thr Pro Asp Val Gly Phe Val Ala
65 70 75 80
Ile Arg Gln Gly His Asp Glu Val Val Arg Ile Cys His Ala Gly Cys
85 90 95
Ile Leu Asp Pro Phe Leu Tyr Leu Leu Arg Gly Phe Val Phe Met Leu
100 105 110
Arg Ala Asp Glu Ser Asp Pro Asp Val Leu Arg Asp Arg Gly Gly Glu
115 120 125
Glu Pro Trp Phe Leu Arg Asn Lys Cys His Leu Leu Ala Gln Pro Ala
130 135 140
Lys Ile Gln Leu Leu Asp Ile Met Ser Val Glu Gln Asp Ile Pro Arg
145 150 155 160
Asp Arg Ala Val Glu Ala Phe Glu Glu Ser Asp Asp Gly Ala Phe Ala
165 170 175
Gly Ser Arg Trp Ser Asp Lys Gly Cys Gly Phe Ala Gly Trp Asp Ile
180 185 190
Asp Ala Gln Val Val Arg Asp Asp Asp Leu Gly Pro Arg Arg Val Asp
195 200 205
Val Ala Asp Ile Leu Gln Asn Asp Val Ser Thr Asp Met Val Gln Gly
210 215 220
Asp Ala Arg Val Glu
225

<210> 39684
<211> 143
<212> PRT
<213> A.fumigatus

<400> 39684
Arg Ile Arg Gln Leu His Ala Pro His Thr Arg Arg Asp Ile Met Val
1 5 10 15
Glu Val Met Glu Arg Ser Gly Gly Ser Glu Leu Pro Glu Asp Glu Ile
20 25 30
Ala Glu Asn Phe Ser Ala Ile Met Leu Ala Gly Phe His Thr Thr Gln
35 40 45
Asn Ala Leu Cys Ala Val Ile Tyr Leu Val Leu Thr His Pro Glu Ala
50 55 60
His Val Lys Leu Val Gln Glu Leu Gln Thr Ala Phe Ala Ser Ala Asp
65 70 75 80
Asp Ile Ser Gly Asp Val Ala Ala Gln Leu Pro Tyr Leu Asn Ala Val
85 90 95
Ile Thr Glu Ala Leu Arg Leu Tyr Pro Pro Val Pro Leu Gly Gly Pro
100 105 110
Arg Val Ser Pro Gly Ala Tyr Val Asp Gly Val Tyr Ile Pro Ala Gly
115 120 125
Val Ser Thr Met Leu Gln Phe Gln Thr Leu Val Pro Leu Leu Thr
130 135 140

<210> 39685
<211> 69
<212> PRT
<213> A.fumigatus

<400> 39685
Gln Thr Leu Val Ser Ser Gly Asn Glu Leu Arg Asn Gly Ala Cys Lys
1 5 10 15
Pro Ile Thr Phe Ile Phe Ala Arg Ala Ser Thr Glu Pro Gly Leu Met
20 25 30
Val Arg Asn Ser Pro Gln Ala Leu Pro Ile Thr Thr Glu Leu Asn Val
35 40 45
Asn Arg Gly Tyr Pro Pro Ala Pro Gln Ser Ala Thr Ala Ser Lys Pro
50 55 60
Pro Asn Pro Ala Arg
65

<210> 39686
<211> 111
<212> PRT
<213> A.fumigatus

<400> 39686
Arg Arg Val Ile Arg Glu Cys Ile Leu Arg Leu His Glu Val Ile Arg
1 5 10 15
Asp Lys Leu Glu Thr His Asn Thr Ile Ser Leu Asn Glu Leu Leu Tyr
20 25 30
Cys His Ser Val Asp Thr Val Ser Glu Val Leu Leu Gly Lys Pro Leu
35 40 45
Gly Cys Leu Lys Arg Gly Lys Pro Tyr Phe Trp Thr Glu Gln Leu Pro
50 55 60
Arg Ile Phe Tyr Trp Ala Thr Ile Arg Asp Gln Phe Glu Gly Ser Gly
65 70 75 80
Ile Pro Thr Ala Ile Lys Trp Leu Leu Arg Arg Phe Leu Arg Lys Gly
85 90 95
Ile Arg Leu Arg Ala Glu Gln Ala Arg Met Arg Leu Ile Asn Glu
100 105 110

<210> 39687
<211> 546
<212> PRT
<213> A.fumigatus

<400> 39687
Val Leu Phe Gly Asn Leu Thr Ser Thr Phe Gln Asp Ile Val Ser Gly
1 5 10 15
Gln Ile Ala Tyr Ala His Phe His His Glu Leu Thr Lys Tyr Val Val
20 25 30
Tyr Phe Val Tyr Leu Ala Ile Gly Glu Phe Ala Thr Ile Tyr Leu Ala
35 40 45
Thr Val Gly Phe Ile Tyr Thr Gly Asp His Ile Val Gln Gln Ile Arg
50 55 60
Val Glu Tyr Leu Arg Ala Ile Leu Arg Gln Asn Ile Ala Phe Phe Asp
65 70 75 80
Thr Leu Gly Ala Gly Glu Ile Thr Thr Arg Ile Thr Ala Asp Thr Asn

```
                85                  90                  95
Leu Ile Gln Asp Gly Ile Ser Glu Lys Val Gly Leu Ala Leu Thr Gly
            100                 105                 110
Leu Ser Thr Phe Val Thr Ala Phe Ile Ile Ala Tyr Ile Lys Ser Trp
        115                 120                 125
Lys Leu Ala Leu Ile Cys Ser Ala Thr Leu Val Ala Leu Leu Leu Ile
    130                 135                 140
Met Gly Gly Cys Ser Thr Ala Met Leu Gly Phe Asn Lys Arg Gly Leu
145                 150                 155                 160
Ala Cys Gln Gly Gln Gly Ala Ser Leu Ala Glu Asp Ile Leu Asp Ser
                165                 170                 175
Ile Arg Thr Val Val Ala Phe Asp Ala Gln Glu Thr Leu Ala Thr Lys
            180                 185                 190
Tyr Glu Lys His Leu Lys Asp Ala Glu Arg Pro Gly Met Arg Ala Gln
        195                 200                 205
Met Ile Phe Ala Leu Met Val Gly Ala Leu Leu Cys Val Met Tyr Leu
    210                 215                 220
Asn Tyr Gly Leu Gly Phe Trp Met Gly Ser Arg Phe Leu Val Asp Asp
225                 230                 235                 240
Gly Ser His Val Lys Ala Gly Asp Val Leu Thr Ile Leu Met Ala Ile
                245                 250                 255
Ile Leu Gly Ser Tyr Asn Leu Gly Asn Ile Ala Pro Asn Thr Gln Ala
            260                 265                 270
Leu Ser Thr Ala Val Ala Ala Ala Thr Lys Leu Tyr Ser Thr Ile Asp
        275                 280                 285
Arg Gln Ser Pro Leu Asp Ala Ser Phe Asp Thr Gly Ile Thr Leu Asp
    290                 295                 300
His Val Arg Gly Asn Ile Val Leu Gln Asn Ile Arg His Val Tyr Pro
305                 310                 315                 320
Ser Arg Pro Glu Val Ile Val Ala His Asp Leu Ser Val Tyr Ile Pro
                325                 330                 335
Ala Gly Lys Thr Thr Ala Phe Val Gly Pro Ser Gly Ser Gly Lys Ser
            340                 345                 350
Thr Ile Ile Gly Leu Leu Glu Arg Phe Tyr Ser Pro Val Ala Gly Asn
        355                 360                 365
Ile Leu Leu Asp Gly His Asp Ile Gln Gln Leu Asn Leu Arg Trp Leu
    370                 375                 380
Arg Gln Gln Met Ala Leu Val Ser Gln Glu Pro Arg Leu Phe Ala Ala
385                 390                 395                 400
Thr Ile Ala Glu Asn Ile Arg Val Gly Leu Ile Gly Ser Lys His Glu
                405                 410                 415
His Glu Pro Pro Gln Gln Ile Gln Lys Arg Ile Glu Asp Ala Ala Arg
            420                 425                 430
Met Ala Asn Ala His Asp Phe Ile Met Ala Leu Pro Asp Gly Tyr Glu
        435                 440                 445
Thr Asn Ile Gly Gly Phe Ser Leu Ser Gly Gly Gln Lys Gln Arg Ile
    450                 455                 460
Ala Ile Ala Arg Ala Ile Val Lys Asp Pro Lys Ile Leu Leu Leu Asp
465                 470                 475                 480
Glu Ala Thr Ser Ala Leu Asp Thr Lys Ser Glu Gly Leu Val Gln Ser
                485                 490                 495
Ala Leu Glu Lys Ala Ser Gln Gly Arg Thr Thr Val Val Ile Ala His
            500                 505                 510
Arg Leu Ser Thr Ile Lys Glu Ala His Asp Ile Val Val Leu Asn Asn
        515                 520                 525
Gly Cys Ile Val Glu Gln Gly Ser His Asp Arg Leu Met Asp Arg Arg
```

530 535 540
Gly Val
545

<210> 39688
<211> 431
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (225),(249),(253),(273)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39688
Tyr Gly Met Val Lys Ala Gln Gln Ile Lys Lys Arg Leu Thr Arg Met
1 5 10 15
Ser Gln Met Ala Arg Ser Pro Met Arg Thr Phe Phe Phe Asp Leu Asp
20 25 30
Tyr Pro Thr Asp Asp Asp Val Ser Glu Tyr Asp Ala Gln Asp Asp Ala
35 40 45
Ser Asp Ile Gly Leu Lys Thr Gly Glu Arg Leu Lys Gln Arg Met Ser
50 55 60
Arg Leu Ser Ile Ser Ala Leu Pro Val His Leu His Lys Ala Lys Glu
65 70 75 80
Met Ser His Ser Leu Cys Thr Leu Phe Lys Phe Leu Ala Ser Phe Asn
85 90 95
Arg Pro Glu Trp Pro Leu Leu Ala Leu Gly Leu Ala Ala Ser Val Leu
100 105 110
Ala Gly Gly Ile Gln Pro Ser Gln Ala Val Leu Phe Ala Lys Ala Val
115 120 125
Ser Thr Leu Ser Leu Pro Pro Trp Glu Tyr Pro Lys Leu Arg His Asp
130 135 140
Ala Ser Phe Trp Ser Leu Met Phe Leu Met Leu Gly Leu Val Thr Phe
145 150 155 160
Leu Leu Tyr Ala Phe Gln Gly Ser Leu Phe Ala Tyr Cys Ala Glu Lys
165 170 175
Met Val Tyr Arg Ala Arg Ser Gln Ala Phe Arg Val Met Leu His Gln
180 185 190
Asp Ile Ser Phe Phe Asp Glu Pro Glu Asn Thr Thr Gly Gly Leu Thr
195 200 205
Ala Thr Leu Ser Ala Glu Thr Lys Pro Thr Gly Arg Ile Gln Arg Arg
210 215 220
Xaa Arg Ser Ala Thr Leu Leu Met Val Ser Val Lys Pro Val Gly Leu
225 230 235 240
Ala Gly Tyr Arg Asn Arg His Gly Xaa Glu Ala Arg Xaa Gly Val His
245 250 255
Phe Arg Arg Ala Cys Leu Pro Ala Leu Arg Leu Tyr Pro Arg Leu Asp
260 265 270
Xaa Gly Gln Val Pro Ala Ala Arg Gln Gly Ser Val Pro Ala Val Gly
275 280 285
Gln Leu Arg Leu Arg Ser Gly Leu Gly Asp Ser His Gly Arg Phe Val
290 295 300
Asp Asp Gly Gly Gly Gly Phe Arg Val Val Ser Asn Ala Ala Ala Gly
305 310 315 320
Pro Ala Gln Ala Gly Ser Pro Pro His Arg Gln Ile Val Ala Pro Val

```
                325                 330                 335
Cys Gln Leu Ala Gly Pro Ala Val Leu Val His Gly Ser Gly Ile Leu
            340                 345                 350
Val Arg Trp Asp Ala Ser Arg Ala Trp Arg Val Leu Pro Leu Pro Val
        355                 360                 365
Leu Arg Leu Leu Gln Arg Gly Asp Leu Arg Arg Ala Gly Gly Gly Asn
    370                 375                 380
Arg Leu Leu Ala Arg Thr Arg Phe Gly Lys Gly Glu Ala Arg Arg Arg
385                 390                 395                 400
Gly Ile Gln Ala Ala Leu Gln Arg Arg Asp His Ala Val Glu Val Gln
                405                 410                 415
Gly Cys Gly Thr Pro Gln Ile Pro Ala Arg Asp Ala Arg Ala Asp
            420                 425                 430
```

<210> 39689
<211> 107
<212> PRT
<213> A.fumigatus

<400> 39689

```
Thr Glu Ile Cys Thr Ser Leu Phe Ala Leu His His Asn Pro Glu Tyr
1               5                   10                  15
Phe Ser Ser Pro Tyr Glu Phe Leu Pro Glu Arg Trp Thr Glu Pro Gly
            20                  25                  30
Ser Thr Asp Arg Lys Glu Ala Val Gln Pro Phe Leu Ile Gly Ser Arg
        35                  40                  45
Ala Cys Ile Ala Lys Tyr Phe Ala Lys Gln Met Leu Gln Leu Thr Leu
    50                  55                  60
Ala Gly Phe Phe Leu Glu Phe Glu Ala Glu His Val Gly Lys Val Arg
65                  70                  75                  80
Asp Trp Gln Arg Gln Ser Arg Cys Tyr Ala Phe Trp Asp Val Pro Asp
                85                  90                  95
Leu Gln Val Lys Leu Arg Lys Arg Leu Ile Asp
            100                 105
```

<210> 39690
<211> 323
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (13),(18),(38)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39690

```
Asn Leu Leu Ala Ser Leu Gly Ile Ala Ile Val Met Xaa Trp Lys Leu
1               5                   10                  15
Ala Xaa Val Cys Ile Ser Ala Val Pro Val Phe Leu Leu Cys Gly Phe
            20                  25                  30
Ile Arg Val Trp Met Xaa Asp Lys Phe Gln Arg Arg Ala Lys Ala Ala
        35                  40                  45
Tyr Gln Gln Ser Ala Ser Ser Ala Cys Glu Ala Ala Ser Ala Ile Arg
    50                  55                  60
Thr Val Ala Ser Leu Thr Met Glu Gly Glu Val Leu Glu Ser Tyr Gln
65                  70                  75                  80
```

```
Thr Gln Leu Gln Asp Gln Leu Lys Arg Asp Leu Leu Pro Ile Val Lys
                85                  90                  95
Ser Ser Leu Leu Tyr Ala Ser Ser Gln Ala Leu Pro Phe Leu Cys Met
            100                 105                 110
Ala Leu Gly Phe Trp Tyr Gly Gly Thr Leu Leu Gly His Gly Glu Tyr
        115                 120                 125
Ser Leu Phe Gln Phe Tyr Val Cys Phe Ser Glu Val Ile Phe Gly Ala
    130                 135                 140
Gln Ala Ala Gly Thr Val Phe Ser His Ala Pro Asp Leu Gly Lys Ala
145                 150                 155                 160
Lys His Ala Ala Gly Glu Phe Lys Arg Leu Phe Ser Gly Glu Thr Met
                165                 170                 175
Gln Ser Lys Cys Arg Ala Ala Ala Arg His Lys Ser Gln Pro Glu Met
            180                 185                 190
Arg Gly Leu Ile Glu Phe Arg Asp Val Ser Phe Arg Tyr Pro Ser Arg
        195                 200                 205
Met Asp Gln Pro Val Leu Arg Arg Leu Asn Leu Thr Val Lys Pro Gly
    210                 215                 220
Gln Phe Val Ala Leu Val Gly Ala Ser Gly Ser Gly Lys Ser Thr Ile
225                 230                 235                 240
Ile Ser Leu Leu Glu Arg Phe Tyr Asn Pro Leu Thr Gly Gly Ile Tyr
                245                 250                 255
Val Asp Gly Ser Asn Ile Ala Ala Trp Asp Leu Thr Ser Tyr Arg Ser
            260                 265                 270
His Leu Ala Leu Val Ser Gln Glu Pro Ala Leu Phe Gln Gly Thr Ile
        275                 280                 285
Arg Glu Asn Ile Leu Leu Gly Ser Thr Arg Pro Tyr Thr Ser Glu Asp
    290                 295                 300
Glu Leu Ile Lys Ala Cys Lys Asp Ala Asn Ile Tyr Asp Phe Ile Ile
305                 310                 315                 320
Ser Leu Pro
```

Sequence Listing

<210> 39691
<211> 135
<212> PRT
<213> A.fumigatus

<400> 39691

```
Ala Thr Leu Ser Pro His Lys Lys Ser Phe Cys Ser Ser Gly Ser Leu
1               5                   10                  15
Met Arg Asn Arg Gln Gly Phe Glu Thr Ile Val Gly Thr Lys Gly Gly
            20                  25                  30
Met Leu Ser Gly Gly Gln Lys Gln Arg Ile Ala Ile Ala Arg Ala Leu
        35                  40                  45
Ile Arg Asp Pro Arg Ile Leu Leu Leu Asp Glu Ala Thr Ser Ala Leu
    50                  55                  60
Asp Ser Lys Ser Glu Lys Val Val Gln Val Ala Leu Asp Ala Ala Ala
65                  70                  75                  80
Gln Gly Arg Thr Thr Ile Pro Val Ala His Arg Leu Ser Pro Ile Gln
                85                  90                  95
Arg Ala Asp Val Ile Tyr Val Leu Asp Gln Gly Pro Val Val Glu Ser
            100                 105                 110
Gly Thr His Glu Ala Leu Leu Arg Lys Arg Gly Arg Tyr Phe Glu Leu
        115                 120                 125
Val Asn Leu Gln Asp Leu Ala
```

130 135

<210> 39692
<211> 200
<212> PRT
<213> A.fumigatus

<400> 39692
Leu Ala Thr Leu Pro Arg Gln Thr Pro Gln Thr Asn Ala Gln Thr Lys
1 5 10 15
Met Asn Leu Arg Leu Leu Thr Leu Ala Leu Ala Gly Leu Ala Ala Ala
20 25 30
Ser Pro Val Ala Ile Glu Glu Arg Gln Cys Thr Tyr Ile Arg Ser Val
35 40 45
Ser Ala Ser Trp Ser Trp Ser Trp Ser Cys Leu Thr Asp Phe Ser Val
50 55 60
Leu Arg Glu Arg Thr Pro Gln Trp Ser Leu Gln Thr His His Leu His
65 70 75 80
Leu Arg Ala Arg Ile His Gly Ala Arg Ala His Gly Lys Glu Leu Pro
85 90 95
Ala Gly Ser Pro Asn Asn Asn Arg Thr Lys Arg Gln Gln Gly Ile Ser
100 105 110
Thr Gly Pro Ala Val Cys Asn Ser Leu Lys Ala Ala Lys Pro Gly Gln
115 120 125
Val Ala Cys Gln Gly Val Gly Pro Ala Tyr Thr Ala Asp Leu Ala Ser
130 135 140
Asn Ala Leu Pro Glu Asn Thr Ser Gln Ala Ala Ile Asn Glu Ala Met
145 150 155 160
Glu Leu Phe Lys Gln Ala Ala Ser Lys Cys Pro Asp Thr Gln Ile Val
165 170 175
Ala Gly Gly Tyr Ser Gln Gly Thr Ala Val Met Asp Gly Ser Ile Lys
180 185 190
Arg Leu Pro Glu Asp Val Lys Gly
195 200

<210> 39693
<211> 107
<212> PRT
<213> A.fumigatus

<400> 39693
Leu Ser Leu Pro Met Arg Phe Leu Lys Glu Leu Ala Leu Gly Met Leu
1 5 10 15
Gln Thr Phe Asn Lys Ala Ile Ala Ala Val Val Ser Ser Pro Phe Gln
20 25 30
Ser Leu Gly Met Leu Asp Leu Cys Ser Glu His Asp Arg Gln Leu Leu
35 40 45
Gln Lys Tyr Thr Glu Ser Val Ser Glu Ser Tyr Glu Val Leu Leu His
50 55 60
Ala Leu Ala Leu Gln His Ala His Leu Thr Pro Asp Ala Pro Ala Ile
65 70 75 80
His Ser Trp Asp Asp Asn Leu Thr Tyr Ala Gln Arg Asp Asp Ala Thr
85 90 95
Ser Arg Leu Gly Gln Ser Trp Pro Gly Trp Ala
100 105

<210> 39694
<211> 284
<212> PRT
<213> A.fumigatus

<400> 39694
Ala Trp Ala Pro Leu Ser Ser Ala Val Leu Arg Ser Leu His Gly Pro
1 5 10 15
Leu Ser Pro Arg Leu Ala Ile Trp Arg Ala Gly Ala Ala Tyr Ile Ser
20 25 30
Val Asp Ala Thr Asp Pro Pro Met Tyr Leu Glu Asn Val Ile Arg Arg
35 40 45
Val Asn Ala Arg Ile Ile Leu Thr Ser Glu Ala Tyr Arg Ser Arg Tyr
50 55 60
Ala Ser Phe Val Pro Ser Val Ile Ala Val Thr Pro Asp Met Val Arg
65 70 75 80
Ala Leu Pro Val Ser Thr Gly Ile Ile Cys Pro Trp Val Lys Pro Ser
85 90 95
Asp Val Cys Leu Val Leu Phe Thr Ser Gly Ser Thr Gly Glu Pro Lys
100 105 110
Gly Ile Ile Gln Glu His Arg Ala Tyr Ala Thr Ala Val Arg Asp Tyr
115 120 125
Asn Lys Leu Leu Gly Leu Gly Arg His Ser Arg Val Leu Gln Phe Asp
130 135 140
Asp Tyr Ala Phe Asp Ile Ser Asn Asn Asp Tyr Leu Thr Thr Val Ala
145 150 155 160
Ala Gly Gly Cys Cys Cys Val His Thr Pro Thr Lys Ser Val Pro Thr
165 170 175
Leu Val Glu Asn Ile Asn Thr Leu Gln Val Asp Thr Thr Phe Leu Thr
180 185 190
Pro Thr Ile Ala Ala Gln Ile Ser Pro Gln Asp Val Pro Thr Leu Glu
195 200 205
Leu Leu Cys Leu Gly Gly Glu Pro Val Pro Asn Glu Leu Leu Ile Arg
210 215 220
Leu Val Ala Ala Cys Glu Thr Gly Glu Ser Val Trp Asp Gly Gly Gly
225 230 235 240
Gly His Leu Val Arg Val Gln Arg Pro Thr Pro Thr Gly Pro Glu Cys
245 250 255
Asp Arg Arg Thr Gly Trp Glu Arg Ser His Leu Asp His Lys Ser Gly
260 265 270
Ile Pro Arg Val Pro Asp Ala Gly Arg Ser Cys Arg
275 280

<210> 39695
<211> 68
<212> PRT
<213> A.fumigatus

<400> 39695
Ala Leu Ala Asp Lys Cys Arg Gly Gly Gly His Leu Gln His Leu Trp
1 5 10 15
Asn Gln Pro Asn Ser Val Asp Asp Met Glu Asp Ala Arg Arg Lys Tyr
20 25 30
Leu His Asn Lys Ile Phe Lys Ala Ile Val Pro His Phe Val Asp Ser
35 40 45
Lys Tyr Asp His Gly Pro Phe Lys Leu Ile Ala Thr Ile Ser Gly Leu

```
    50                  55                  60
Glu Ile Tyr Leu
65

<210> 39696
<211> 135
<212> PRT
<213> A.fumigatus

<400> 39696
Ser Asp Trp Ser Pro His Val Arg Leu Val Asn Gln Tyr Gly Met Gly
1               5                  10                  15
Glu Ala Ala Thr Leu Cys Ala Tyr Asn Asp Gln Leu Gln Pro Gly Gln
            20                  25                  30
Asn Ala Ile Val Gly Arg Ala Gly Ser Gly Ala Ile Trp Ile Thr Ser
        35                  40                  45
Pro Glu Ser Pro Glu Phe Leu Met Pro Val Gly Ala Val Gly Glu Ile
    50                  55                  60
Leu Ile Glu Gly Pro His Leu Ala Arg Gly Tyr Leu Asp Ser Val Cys
65                  70                  75                  80
Gln Lys Pro Gly Val Gly Phe Leu Pro Asn Ala Pro Thr Trp Leu Lys
                85                  90                  95
Asp Leu His Pro Ser Arg Thr Gly Pro Ser Arg Phe Tyr Gln Leu Arg
            100                 105                 110
Arg Pro Gly Glu Ile His Thr Cys Arg Asp Cys Gly Thr Ser Trp Ala
        115                 120                 125
Ala Lys Thr Pro Ser Ser Arg
    130                 135

<210> 39697
<211> 213
<212> PRT
<213> A.fumigatus

<400> 39697
Glu Leu Ile Ala Met Ile Asp Val Cys Ile Pro Cys Phe Ser Pro Val
1               5                  10                  15
Tyr Ser Tyr Gly Leu Thr Pro Asp Leu Tyr Val Asp Arg Arg Ser Arg
            20                  25                  30
Gln Ala Thr Glu Gly Ile Asn Tyr Arg Asn Leu Arg Phe Pro Phe Gln
        35                  40                  45
Asn Ala Gly Ala Arg Ala Ala Gly Ile Thr His Gly Ala Val His Phe
    50                  55                  60
Ala Ala Ala Ala Glu Ser Ser Gly Ala Asp Gln Ala Asp Phe Phe Ile
65                  70                  75                  80
Glu His Gly Gly Asn Trp Thr Ala Asp Gly Gln Thr Leu Pro Gly Val
                85                  90                  95
Leu Glu Met Glu Gly Asn Leu Ala Gly Lys Leu Cys His Gly Met Thr
            100                 105                 110
Pro Thr Glu Ile Thr Asp Trp Met Leu Asp Phe Ser His Arg Tyr Lys
        115                 120                 125
Phe Arg Thr Gly Arg Thr Pro Ile Leu Phe Leu Ser Ala Gly Trp Trp
    130                 135                 140
Ala Lys Cys Ala Gly Asn Asn Ala Thr Phe Gly Ala Glu His Ala Leu
145                 150                 155                 160
Trp Leu Ala Asn Trp Ala Glu Glu Met Gly Pro Leu Pro Val Gly Trp
```

```
                165                 170                 175
Gln Ala Ala Lys Phe Trp Gln Tyr Ala Gly Trp Ser Glu Asn Gly Gly
            180                 185                 190
Glu Ala Asn Val Phe Leu Gly Ser Ser Lys Asp Leu Val Lys Leu Ala
        195                 200                 205
Met Gly Ala Asp Glu
    210
```

<210> 39698
<211> 61
<212> PRT
<213> A.fumigatus

<400> 39698

```
Phe Pro Phe Trp Asp Leu Thr Ala Ala Val Ile Cys Phe Asp Ser Ala
1               5                   10                  15
Leu Asn Lys Ser Lys Met Gly Ala Thr Asp Val Pro Gln Ala Gln Ala
            20                  25                  30
Val Thr Val Ser Leu Gln Glu Leu Val Asn Gly Glu Leu Ile Asn Cys
        35                  40                  45
Lys Asn Ser Cys Arg Phe Arg Ala Val Glu Ser Trp Ser
    50                  55                  60
```

<210> 39699
<211> 311
<212> PRT
<213> A.fumigatus

<400> 39699

```
Tyr Ala Ile Glu Ser Leu Thr Ser Pro Ala Ala Lys Tyr Leu Val Gly
1               5                   10                  15
Trp Ser Cys Gly Lys Glu Thr Leu Arg Ser Gly His Phe Asp Thr Leu
            20                  25                  30
Lys Gly Ser Tyr Tyr Val Asn Cys Ala Phe Tyr Gln Asn Pro Asp Leu
        35                  40                  45
Gln Gly Ala Pro Ala Asp Asn Phe His Asp Leu Ser Glu Tyr Thr Ala
    50                  55                  60
Pro Asn Ile Trp Pro Pro Ala Asp Arg Leu Pro Thr Phe Arg Arg Ser
65                  70                  75                  80
Leu Glu Glu Leu Cys Thr Leu Ile Ile Asp Thr Ala Ala Leu Val Ala
                85                  90                  95
Arg Ala Cys Asp Arg Tyr Ala Leu Ala Asn Ile Asp Gly Tyr Lys Glu
            100                 105                 110
Gly Tyr Leu Glu His Val Val Lys Thr Ser Leu Thr Thr Lys Ala Arg
        115                 120                 125
Leu Leu His Tyr Phe Pro Thr Asp Pro Thr Ala Ala Ala Asn Ala Glu
    130                 135                 140
Ala Glu Asp Asp Asp Asp Trp Cys Ala Thr His Leu Asp His Gly Cys
145                 150                 155                 160
Leu Thr Gly Leu Thr Ser Ala Met Phe Val Asp Glu Ala Ala Asn Pro
                165                 170                 175
Pro Ser Leu Thr Asp Ala Ser Thr Pro Leu Ala Glu Leu Pro Gln Ser
            180                 185                 190
Pro Asp Pro Lys Ala Gly Leu Tyr Ile Gln Ser Arg Thr Gly Gln Val
        195                 200                 205
Val Lys Val Asn Ile Pro Asn Asp Cys Leu Ala Phe Gln Thr Gly Glu
```

```
    210                 215                 220
Ala Leu Gln Leu Ile Thr Arg Gly Lys Phe Arg Ala Val Pro His Phe
225                 230                 235                 240
Val Lys Gly Ala Arg Pro Ser Gly Arg Ala Arg Ile Ala Arg Asn Thr
                245                 250                 255
Leu Ala Val Phe Thr Gln Pro Asn Leu Glu Glu Glu Val Glu Leu Gly
            260                 265                 270
Lys Thr Phe Cys Gly Val Leu Pro Gly Arg Trp Ser Val Gly Leu Ile
        275                 280                 285
Ser Val Tyr Lys Phe Arg Phe Cys Arg Arg Leu Gln Val Leu Thr Gly
    290                 295                 300
Gly Lys Gly Tyr Ile Arg Glu
305                 310
```

<210> 39700
<211> 593
<212> PRT
<213> A.fumigatus

<400> 39700

```
Gln Cys Leu Leu Asp Gly Leu Pro Ala Arg Gly Pro Gly Arg Pro Thr
1               5                   10                  15
Gly Ser Leu Ser Thr Pro Gly Ser Ala Arg Pro Ser Arg Pro Pro Gly
            20                  25                  30
Arg Pro Pro Gly Arg Pro Ser Gly Arg Pro Leu Gly Arg Leu Gly Arg
        35                  40                  45
Pro Pro Gly Arg Pro Pro Leu Asn Pro Ile Val Asp Arg Glu Gly Thr
    50                  55                  60
Pro Asp Val Phe Lys Met Ala Ile Val Lys Leu Lys Asp Arg Gly Glu
65                  70                  75                  80
Ile Asp Glu Pro Ile Ser Glu Pro Leu Ser Met Asp Trp Lys Ser Glu
                85                  90                  95
Arg Pro Gly Leu Gly Glu Tyr Leu Gln Lys Leu Arg Met Gln Pro Ser
            100                 105                 110
Tyr Val Pro Arg Ala Gly Glu Ile Val Leu Trp Val Pro Asn Phe Glu
        115                 120                 125
Gly Glu Leu Ala Trp Asn Pro Glu His Ala Arg Val Glu Met Tyr Asp
    130                 135                 140
Pro Thr Val Asp Arg Phe Ile Gly Val Pro Glu Trp Arg Ala Gly Ile
145                 150                 155                 160
Val Gly Gln Val Pro Glu Glu Asp Thr Val Leu Gln Asp Ile Val Glu
                165                 170                 175
Thr Ala Asn Lys Glu Trp Glu Val Asn Tyr Ser Gly Phe Arg Val Glu
            180                 185                 190
Thr Phe Pro Asp Pro Asn Ser Ala Asp Lys Ser Tyr Ser Leu Gln Tyr
        195                 200                 205
Lys Tyr Val His Leu Lys Cys Ile Lys Pro Phe Asn Gly Tyr Glu Leu
    210                 215                 220
Phe Leu Gln Asn Met Pro Arg Asp Glu Leu His Pro Ser Ile Glu Tyr
225                 230                 235                 240
Ala Met Thr Val Met Ser Ser Phe Ser Leu Leu Glu Lys Phe His Phe
                245                 250                 255
Arg Gly Arg Trp Pro Asn Ala Ser Ile Tyr Cys Met Gly Ile Phe Ile
            260                 265                 270
Gly Ala Glu Leu Leu Ile Val Gly Asp Ala Val Arg Leu Lys Pro Val
        275                 280                 285
```

```
Gly Tyr Ser Leu Ser Ser Gly Gln Lys Ala Val Thr Asp Val Met Val
    290                 295                 300
Ile Asp Glu Ile Arg Leu Asp Leu Ile Gln Cys Val Asp Asp Ile Lys
305                 310                 315                 320
Ser Asp Gln Leu Ala Glu Arg Tyr Gln Val Arg Leu Gly Gly Lys Val
                325                 330                 335
Tyr Thr Asn Asn Arg Gln Arg Ala Val Ile Asp Asn Ser Met Gln Pro
            340                 345                 350
Pro Lys Pro Leu Ser Pro Glu Glu Val Leu Ser Val Phe Gln Tyr Ile
        355                 360                 365
Gly Met Ser Gly Tyr Gly Asp Trp Tyr Ser Leu Asn Gly Gly Lys Thr
    370                 375                 380
Val Asp Ile Ser Gln Gly Met Val Ile Gly Arg Cys Tyr Glu Pro Asp
385                 390                 395                 400
Ala Met Arg Leu Leu Phe Gly Ser Leu Ser Leu Gly Arg Asp Leu His
                405                 410                 415
Gly Val Leu Ser Gly Arg Gln Tyr Ser Arg Gln Ala Asp Glu Arg Ile
            420                 425                 430
Pro Glu Gly Lys Asp Trp Phe Trp Gly Asp Phe Arg Thr Gln Thr Leu
        435                 440                 445
Ala Val Glu Thr Leu Asn Gly Glu Asp Val Gly His Tyr Ser Glu Ile
    450                 455                 460
Arg Asp Val Lys Met Trp Arg Ala Asn Leu Lys Val Ile Glu Gly Arg
465                 470                 475                 480
Ala Thr Ala Ala Asp Leu Arg Glu Ala Lys Ile Pro Gly Glu Leu Gly
                485                 490                 495
Arg Pro Ser His Lys Ser Arg Ser Ala Phe Ala Glu Val Arg Lys Thr
            500                 505                 510
Ser Lys Leu Val Ser Thr Gly Leu Gly Ala Val Ile Thr Asp Val Ser
        515                 520                 525
Asn Asn Ser Ser Ser Ala Asp Glu Ser Asn Ala Gln Thr Arg Met Asn
    530                 535                 540
Thr Glu Asp Glu Gly Glu Glu Glu Ser Pro Glu Asp Glu Glu Asp Phe
545                 550                 555                 560
Thr Leu Arg Leu Glu Asp Leu Arg Gly Gly Thr Glu Glu Thr Glu Gly
                565                 570                 575
Gly Asp Tyr Val Pro Gly Asn Asp Gly His Thr Ala Lys Arg Pro Lys
            580                 585                 590
Thr
```

<210> 39701
<211> 85
<212> PRT
<213> A.fumigatus

```
<400> 39701
Ile Ile Ser Leu Gly Leu Ser Ile Ile Pro Ser Ala Val Met Ser Val
1               5                   10                  15
Ser Gln His Ser Gln Thr Ser Glu Glu Asp Ala Glu Thr Ile Thr Ile
            20                  25                  30
Pro Ile Asp Arg Ser Phe Ser Asp Gly Asp Pro Ser Thr Trp Pro Thr
        35                  40                  45
Glu Pro Arg Phe Gly Met Pro Asp Asp Thr Trp Tyr Arg Glu Lys Leu
    50                  55                  60
Ala Ile Met Trp Leu Lys Glu Thr Gly Ala Tyr Glu Glu Gly Thr Leu
```

65 70 75 80
Leu Thr Ser Asn Phe
85

<210> 39702
<211> 622
<212> PRT
<213> A.fumigatus

<400> 39702
Gln Tyr Glu Gly Lys Leu Cys Ser Asp Leu Leu Val Arg His Glu Arg
1 5 10 15
Leu Val His Pro Ala Glu Ala Ala Ala Asn Arg Glu His Arg Asn His
20 25 30
Asn Asn His Glu Val Ser Ser Thr Pro Ser Ser Met Ile Gln Thr Thr
35 40 45
His His Glu Ser Arg Met Leu Glu Leu Ala Asp Ala Ile Pro Val Gln
50 55 60
Pro Gln Pro Ile Pro Pro Pro Pro Pro Glu Val His Val Gln Pro Ala
65 70 75 80
Pro Ile Ile Glu Thr Thr His Phe Asn Pro Ser Trp Gly Tyr Asp Leu
85 90 95
Asn Leu Leu Ser His Ala Ala Ser His Val Ala Leu Glu Gly Gln Gln
100 105 110
Glu Ala Leu Glu Ser Met Arg Lys Pro Ser His Thr Val Gly Pro Pro
115 120 125
Gln Pro Ile Pro His Val Thr Asp Arg Pro Ile Thr Glu Asn Tyr Gly
130 135 140
Leu Glu Pro Ser Met Leu Asp Leu Thr Asp Leu Gly Asp Pro Val Gln
145 150 155 160
Asp Phe Thr Val Phe Leu Glu Ser Val Gly Leu Ser Ser Asp Trp Asp
165 170 175
Ser Gly Val Phe Ser Thr Val Glu Glu Pro Met Leu Pro Thr Thr Leu
180 185 190
Ser Ile Asp Ser Lys Pro Pro Leu Arg Glu Thr Ser Arg Leu Gly Thr
195 200 205
Glu Ile Met Asn Asp Pro Arg Ser Ala Asp Asp Pro Pro Ser Phe Ser
210 215 220
Asn Phe Gly Ser Arg Leu Pro Ser Leu Gln Pro Glu Ser His Glu Val
225 230 235 240
Asp Asp Arg Leu Gly Phe Gly Asp Asp Gly Pro Arg Pro Ala Trp Asp
245 250 255
Ile Ser Asn Ala Asp Arg Gln Val Phe Val Ser Lys Leu Glu Glu Phe
260 265 270
Ala Tyr Ile Leu Pro Lys Gly Phe Val Pro Pro Ser Arg His Ala Leu
275 280 285
Ser Arg Phe Phe Ala Gly Tyr Ile Asn Gly Leu Asn Glu His Leu Pro
290 295 300
Phe Ile His Val Pro Thr Leu Ser Val Ala Asn Ala Phe Pro Glu Leu
305 310 315 320
Thr Leu Ala Leu Ala Ala Ala Gly Ser His Tyr Arg Phe Glu Asn Asn
325 330 335
Arg Gly Ile Asp Leu Phe His Ala Ala Lys Thr Ile Leu Leu Glu Arg
340 345 350
Leu Arg Arg Arg Asp Ser Lys Gln Val Pro Cys Pro Thr Trp Asn Phe
355 360 365

```
Tyr Ser Pro Ser Ser Gly Phe His Asn Ser Arg Gly Ser Ser Ala Met
    370                 375                 380
Ser Asn His Ala Ser Ser Pro Phe Gln Gln Gln Gln Ser Met Pro
385                 390                 395                 400
His Pro Val Asp Pro Ser Ile Tyr Val Ser Asp Asp Ser Asp Ala His
                405                 410                 415
Met Glu Val Ile Arg Thr Phe Leu Leu Leu Thr Val Phe Ala Ser Trp
            420                 425                 430
Glu Arg His Pro Glu Leu Leu Arg Glu Ile Leu Ser Leu Gln Ser Thr
        435                 440                 445
Leu Ala Arg Leu Val Arg Glu His Gly Leu Ser Glu Pro Ala Thr Ser
    450                 455                 460
Pro Asp Pro Asn Asn Trp Glu Glu Trp Ile Arg Arg Glu Gly Asn Arg
465                 470                 475                 480
Arg Thr Lys Leu Ile Val Tyr Cys Phe Phe Asn Leu His Ser Ile Met
                485                 490                 495
Tyr Asn Ile Pro Pro Leu Ile Leu Asn Ala Glu Leu Lys Leu Asn Met
            500                 505                 510
Pro Cys Ser His Asp Val Trp Lys Ala Ser Asn Ala Thr Gln Trp Arg
        515                 520                 525
Arg Leu Ser Arg Thr Trp Pro Gly Val Asp Val Pro Phe Gln Glu Ala
    530                 535                 540
Phe Ala Lys Leu Phe Leu Lys Ser Ser Ile Ser Asn Ser Ser Ala Pro
545                 550                 555                 560
Ile Ser Pro Leu Gly Asn Tyr Ile Leu Ile His Ala Ile Ile Gln Gln
                565                 570                 575
Ile Phe Phe Ala Arg Gln Leu Cys Leu Ser Ala Pro Thr Met Gln Gly
            580                 585                 590
Thr Ser Leu Arg Pro Asp Asp Leu Thr Val Leu Asp Asn Ser Leu Ser
        595                 600                 605
Ala Trp Lys Ala Leu Trp Lys Arg Thr Pro Gly Ile Gln His
    610                 615                 620

<210> 39703
<211> 166
<212> PRT
<213> A.fumigatus

<400> 39703
Leu Leu Lys Thr Pro Val Gln Ile Ala Arg Ala Leu Ser Glu Ser Pro
1               5                   10                  15
Pro Ile Ala Arg Ser Pro Arg Leu Ile Met Ala Leu Leu His Ser Ala
            20                  25                  30
His Ala Leu Ser Ile Pro Val Arg Leu Gly Ile Asp Phe Val Ala Arg
        35                  40                  45
Thr His Ser Phe Phe Trp Ser Ile Gln His Ser Leu Cys Ser Leu Glu
    50                  55                  60
Cys Ala Phe Leu Leu Ser Arg Trp Leu Leu Ser Ile Pro Ala Thr His
65                  70                  75                  80
Ser Glu Gln Arg Leu Ser Asp His Glu Arg Lys Leu Leu Leu Trp Ile
                85                  90                  95
Lys Ser Met Met Asp Glu Thr Asp Met Ala Val Asp Pro Pro Gly Ala
            100                 105                 110
Pro Asp Met Glu Phe Met Ala Asn Pro Tyr Lys Ala Lys Gln Leu Ser
        115                 120                 125
Val Ala Ile Val Arg Val Trp Ala Arg Thr Phe Lys Gly Asn Thr Ser
```

```
    130                 135                 140
Trp Ala Ile Val Asp Leu Val Gly Ser Ser Leu Asp Ala Tyr Ala Asp
145                 150                 155                 160
Val Leu Glu Asn Gln Leu
                165
```

<210> 39704
<211> 154
<212> PRT
<213> A.fumigatus

<400> 39704

```
Pro Ser Thr Ser Ile Ala Ser Ser Met Pro Arg Pro Ser Leu Val Gly
1               5                   10                  15
Leu Thr Pro Gly Leu Val Ala Asp Arg Leu Gly Ser Leu Lys Thr Leu
            20                  25                  30
Ile Pro Met Gly Leu Ile Ala Ala Ile Leu Ala Tyr Ala Trp Met Gly
        35                  40                  45
Ile Lys Asn Ile Ala Gly Thr Ile Val Phe Ala Cys Leu Tyr Gly Phe
    50                  55                  60
Ala Ser Gly Ala Ile Val Ser Leu Pro Pro Thr Val Val Ala Arg Leu
65                  70                  75                  80
Ser Pro Asn Met Ser Ile Val Gly Thr Arg Met Gly Met Cys Phe Thr
                85                  90                  95
Phe Ala Gly Leu Gly Leu Leu Ile Gly Asn Pro Ile Ala Gly Ala Leu
            100                 105                 110
Leu Asp Leu Glu Arg Gly Val Phe Trp Lys Ala Glu Leu Phe Ser Ala
        115                 120                 125
Val Met Val Thr Ala Gly Ala Val Ser Phe Ile Trp Leu Arg Leu Leu
    130                 135                 140
Lys Trp Arg Asp Gly Glu Lys Gly Lys Tyr
145                 150
```

<210> 39705
<211> 433
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (48)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39705

```
Ala Gly Tyr Ser Arg Leu Ala Thr Val Asp Tyr Ser Lys Ile Phe Tyr
1               5                   10                  15
Glu Val Leu Ile Pro Tyr Ala Ser Thr Met Met Ala Leu Gly Gly Ile
            20                  25                  30
Val Arg Gln Thr Ala Tyr Lys Trp Arg Pro Tyr Thr Thr Leu Asp Xaa
        35                  40                  45
Cys Lys His His Gln Arg Leu Pro Phe Ser Gln Pro Ile Asn Leu Ser
    50                  55                  60
Gln Ser Ser Leu Ile Tyr Phe His Tyr Ile Met Ala Glu Ser Leu Ile
65                  70                  75                  80
Phe Ala Tyr Gly Ser Thr Glu Pro Val Lys Asp Ile Arg Leu His Ser
                85                  90                  95
```

```
Thr Pro Ala Pro Ala Asp Cys Gly Pro His Glu Val Val Val Asp Phe
            100                 105                 110
Leu Ala Ala Pro Ile Asn Pro Leu Asp Phe Leu Val Leu His Gly Lys
        115                 120                 125
Tyr Pro Val Lys Pro Gln Asn His Ile Thr Val Ala Asp Gly Glu His
    130                 135                 140
Arg Pro Ile Pro Gly Ser Asp Gly Ala Ala Arg Ile Val Arg Thr Gly
145                 150                 155                 160
Ser Ala Val Thr Gln Phe His Val Gly Asn Ser Val Ile Leu Arg Thr
                165                 170                 175
His Cys Arg Gly Ser Trp Arg Thr His Ala Val Leu Ala Glu Asn Asp
            180                 185                 190
Val Leu Arg Val Pro Ser Glu Leu Asp Pro Arg Leu Ala Cys Ile Leu
        195                 200                 205
Arg Met Gly Val Ala Pro Ala Tyr Phe Leu Leu Arg Asp Tyr Ser Thr
    210                 215                 220
Leu Glu Pro Gly Asp Trp Ile Ile Gln Asn Ala Ala Thr Gly Thr Val
225                 230                 235                 240
Ser His Phe Val Thr Gln Leu Ala Arg Leu Gln Gly Val Asn Val Ile
                245                 250                 255
Ser Val Ile Arg Asp Arg Gly Thr Asp Asp Glu Leu Glu Arg Thr Lys
            260                 265                 270
Arg Ser Leu Arg Ser His Gly Ala Ala Ile Val Leu Thr Val Asp Glu
        275                 280                 285
Leu Lys Thr Val Gly Ala Glu Val Leu Gln Gly Lys Arg Val Asn Leu
    290                 295                 300
Ala Ile Asp Phe Val Ser Asp Asp Ala Leu Ala Arg Leu Met Ala Ser
305                 310                 315                 320
Phe Leu Val Pro Gly Ala Thr Leu Val Thr Ala Gly Phe Leu Gly Ile
                325                 330                 335
Ala Pro Ser Ser Pro Glu Ala Asn Leu Arg Gln Phe Leu Trp Gln Arg
            340                 345                 350
Asn Ile Thr Leu Lys Ala Phe Arg Leu Ser Asp Cys Leu Gly Arg Arg
        355                 360                 365
Ser Ala Phe His Gln Thr Ala Leu Leu Glu Trp Phe Ala Arg Leu Phe
    370                 375                 380
Leu Glu Gly Thr Leu Lys Thr Pro Ala Leu Glu Tyr Val Arg Trp Lys
385                 390                 395                 400
Arg Gly Asp Pro Gly Leu Glu Gly Lys Leu Gln Glu Val Leu Glu Arg
                405                 410                 415
His Glu Arg Gly Glu Val Gly Glu Arg Lys Lys Ile Leu Val Phe Glu
            420                 425                 430
His
```

<210> 39706
<211> 133
<212> PRT
<213> A.fumigatus

<400> 39706

```
Pro Ile Ser Arg Gly Val Val Asn Thr Phe Gly Val Tyr Gln Thr Tyr
1               5                   10                  15
Tyr Glu Thr Asp Leu Leu His Gly His Ser Pro Ser Ser Ile Ser Trp
            20                  25                  30
Ile Gly Thr Val Gln Gly Phe Leu Leu Phe Leu Val Gly Val Ile Ala
```

```
        35                  40                  45
Gly Pro Val Phe Asp Lys Gly Tyr Leu Lys Thr Met Ile Ala Ala Gly
    50                  55                  60
Ser Phe Leu Val Val Phe Gly Leu Met Met Thr Ser Leu Ser Asp Gln
65                  70                  75                  80
Tyr Tyr Gln Val Phe Leu Ala His Gly Val Val Val Gly Ile Gly Cys
                85                  90                  95
Ala Phe Leu Phe Leu Pro Ser Ile Ala Ile Val Ala Thr Tyr Phe Thr
            100                 105                 110
Thr Arg Arg Ala Val Ala Thr Gly Ile Thr Ala Ser Gly Gly Ser Ile
        115                 120                 125
Gly Met Ser Arg Arg
    130
```

<210> 39707
<211> 274
<212> PRT
<213> A.fumigatus

<400> 39707

```
Val Thr Lys Ser Thr Ala Ser Ile Leu Thr Arg Pro Gly Ser Val Ile
1               5                   10                  15
Tyr Pro Ile Ile Phe Arg Lys Leu Ile Asp Ser Val Gly Phe Gly Trp
            20                  25                  30
Thr Thr Arg Ile Ile Gly Phe Ile Ala Leu Gly Gly Leu Cys Val Ser
        35                  40                  45
Leu Ala Val Met Arg Met Arg Leu Pro Pro Pro Lys Gln Ala Arg Ser
    50                  55                  60
Leu Leu Asp Leu Ser Ala Phe Lys Glu Ala Ser Phe Leu Ile Phe Ser
65                  70                  75                  80
Phe Gly Leu Phe Cys Ala Phe Val Gly Leu Tyr Phe Pro Phe Phe Tyr
                85                  90                  95
Leu Pro Thr Tyr Lys Ser Asn Ile Val His Ser Thr Asp Asp Leu Ala
            100                 105                 110
Phe Tyr Ile Asn Arg Ile Leu Asn Ala Thr Ser Val Phe Gly Arg Ile
        115                 120                 125
Asn Pro Arg Pro Gly Gly Arg Pro Ala Gly Leu Pro Gln Asn Pro His
    130                 135                 140
Pro His Gly Pro Asp Arg Gly Asp Pro Arg Val Arg Leu Asp Gly Asp
145                 150                 155                 160
Gln Glu His Cys Gly Asp Asp Arg Val Cys Val Ser Val Trp Ile Cys
                165                 170                 175
Leu Trp Arg Asn Arg Leu Val Ala Ala Asn Gly Arg Gly Pro Val Glu
            180                 185                 190
Ser Glu Tyr Glu Tyr Cys Gly His Ala Asp Gly Tyr Val Leu Tyr Val
        195                 200                 205
Cys Arg Val Gly Ala Val Asp Trp Gln Ser Asp Cys Trp Gly Ala Val
    210                 215                 220
Gly Ser Gly Glu Gly Gly Val Leu Glu Gly Arg Ala Val Gln Cys Gly
225                 230                 235                 240
Tyr Gly Tyr Arg Arg Ser Cys Val Val Tyr Leu Val Glu Ala Val Glu
                245                 250                 255
Val Glu Gly Trp Arg Glu Gly Glu Val Leu Ile Cys Ser Ala Trp Ser
            260                 265                 270
Ser Glu
```

<210> 39708
<211> 394
<212> PRT
<213> A.fumigatus

<400> 39708

```
Lys Thr Arg Pro Arg Val Cys Thr Ser Ile Gly Arg Ile Tyr Ile Ile
1               5                  10                  15
Leu Ile Ser Leu Ser Val Gly Arg Val Thr Leu Arg Thr Leu Leu Asp
            20                  25                  30
Asp Gly Leu Ile Leu Glu Arg Val Ser Cys Pro Ile Gly Val Leu Leu
        35                  40                  45
Ile Ile Phe Glu Ala Arg Pro Glu Val Ile Ala Asn Ile Ala Ala Leu
    50                  55                  60
Ser Ile Lys Ser Gly Asn Ala Ala Ile Leu Lys Gly Thr Phe Cys Met
65                  70                  75                  80
Ile Asp Ser Glu Ile His Thr Thr Asp Met Ser Glu Gly Gly Lys Glu
                85                  90                  95
Ser Thr Glu Ser Phe Ile Ala Ile Ser Lys Val Ile Ser Glu Ala Ile
            100                 105                 110
Ser Gly Thr Arg Val Pro Val Ala Ser Val Gln Leu Val Lys Thr Arg
        115                 120                 125
Asp Val Val Ser Ser Leu Leu Ala Gln Asp Ser Leu Ile Asp Leu Val
    130                 135                 140
Ile Pro Arg Gly Ser Asn Asp Leu Val Arg Phe Val Lys Glu Asn Thr
145                 150                 155                 160
Lys Ile Pro Val Leu Gly His Ala Asp Gly Leu Cys Ser Ala Tyr Leu
                165                 170                 175
His Ala Asp Ala Asp Pro Ala Ile Ala Val Lys Val Ile Val Asp Ala
            180                 185                 190
Lys Thr Asp Tyr Pro Ala Ala Cys Asn Ser Leu Glu Ser Leu Leu Val
        195                 200                 205
His Glu Asp Ala Leu Gly Thr Ile Phe Pro Ala Val Ala Glu Ala Leu
    210                 215                 220
Leu Ala Lys Gly Val Arg Leu Arg Cys Asp Ile Gln Ser Lys Ser Ala
225                 230                 235                 240
Leu Leu Lys Asn Ile Ser Ser Pro Pro Ala Asp Leu Leu Glu Asp Ala
                245                 250                 255
Val Asp Ser Asp Phe Asp Thr Glu Phe Leu Asp Leu Val Leu Ala Val
            260                 265                 270
Lys Thr Ile Pro Ser Thr Ser Ser Pro Ile Ser Ala Val Glu Asp Ala
        275                 280                 285
Ile Ser His Ile Asn Ser His Ser Ser Lys His Thr Asp Leu Ile Val
    290                 295                 300
Thr Glu Ser Lys Glu Ile Ala Glu Tyr Phe Met Arg Gly Val Asp Ser
305                 310                 315                 320
Ala Gly Val Phe Trp Asn Ala Ser Thr Arg Phe Ala Asp Gly Met Arg
                325                 330                 335
Phe Gly Phe Gly Thr Glu Val Gly Ile Ser Thr Asn Lys Ile His Thr
            340                 345                 350
Arg Gly Pro Val Gly Leu Asp Gly Leu Thr Ile Tyr Lys Tyr Leu Leu
        355                 360                 365
Arg Gly Gln Gly His Arg Ala Gly Asp Tyr Phe Glu Gly Glu Gly Gly
    370                 375                 380
Lys Lys Trp Lys His Glu His Leu Val Ile
```

385 390

<210> 39709
<211> 89
<212> PRT
<213> A.fumigatus

<400> 39709
Ser Pro Val Leu Gln Gly Leu Thr Arg Ser Gln Phe Asp Gly Lys Glu
1 5 10 15
Val Ile Ser Phe Ile Gln Glu Thr Asn Lys Tyr Arg Asp Asn Ser Pro
20 25 30
Lys Ser Ser Lys Glu Asp Leu Ile Pro Cys Asp Ala Val Asp Ile Met
35 40 45
Ala Ser Phe Ile His Pro Arg Gly Tyr Thr Leu Arg Gln Thr Leu Gly
50 55 60
Phe Ser Gly Gln Ser Trp Thr Ser Phe Arg Tyr Ser Ser Val Pro Ile
65 70 75 80
Asn Ala Cys Ser Glu His Tyr Leu Ser
85

<210> 39710
<211> 64
<212> PRT
<213> A.fumigatus

<400> 39710
Ile His Pro Ile Ala Cys Arg Phe Met Ser Ser Cys Val Lys Asn Lys
1 5 10 15
Ala Thr Cys Val Tyr Ile Asn Trp Pro Asn Ile His His Thr Asn Gln
20 25 30
Ser Ile Ser Gly Glu Ser Asp Pro Lys Asp Ala Thr Gly Arg Trp Ser
35 40 45
His Pro Gly Glu Ser Glu Leu Ser Tyr Trp Cys Leu Ala Asp Tyr Ile
50 55 60

<210> 39711
<211> 72
<212> PRT
<213> A.fumigatus

<400> 39711
Arg Arg Thr Arg Leu Ser Ile Gln Ser Ala Ser Phe Ala Ala Leu Gly
1 5 10 15
His Gly Gly Thr Ala Lys Lys Leu Pro Gly Met Phe Thr Thr Met Val
20 25 30
Leu Ile Tyr Lys Asn Glu Gly Gly Phe Val Ala Leu Tyr Arg Gly Ile
35 40 45
Val Pro Thr Val Ala Gly Val Ala Pro Tyr Val Ser Glu Ile Arg Met
50 55 60
Met Ile Asn Arg Cys Leu Arg Val
65 70

<210> 39712
<211> 78
<212> PRT

<213> A.fumigatus

<400> 39712

```
Tyr Arg His Ser Asp Val Leu Arg Arg Arg Phe Gln Ile Asn Thr Met
1               5                  10                  15
Ser Gly Met Gly Tyr Gln Tyr Lys Ser Ile Trp Asp Ala Val Arg Val
            20                  25                  30
Ile Ile Ala Glu Glu Gly Leu Arg Gly Phe Phe Arg Gly Ile Val Pro
        35                  40                  45
Asn Leu Leu Lys Val Ala Pro Ser Met Ala Ser Ser Trp Leu Ser Phe
    50                  55                  60
Glu Leu Thr Arg Asp Phe Leu Val Gly Phe Ser Asp Glu Lys
65                  70                  75
```

<210> 39713
<211> 139
<212> PRT
<213> A.fumigatus

<400> 39713

```
Phe Glu Phe Ser Val Leu Leu Gly Arg Thr Glu Ser Asn Phe Asn Lys
1               5                  10                  15
Val Val Leu Arg Arg Leu Phe Met Ser Arg Ile Asn Arg Pro Pro Val
            20                  25                  30
Ser Leu Ser Arg Leu Val Ser Asn Val Thr Asp Ala Pro Lys Gly Lys
        35                  40                  45
Thr Ile Val Val Ile Gly Thr Ile Thr Asp Asp Asn Arg Leu Leu Thr
    50                  55                  60
Val Pro Lys Leu Ser Val Ala Ala Leu Arg Phe Thr Ala Thr Ala Arg
65                  70                  75                  80
Ala Arg Ile Glu Lys Ala Gly Gly Glu Thr Leu Thr Leu Asp Gln Leu
                85                  90                  95
Ala Leu Arg Ala Pro Thr Gly Ala Asn Thr Leu Leu Leu Arg Gly Pro
            100                 105                 110
Lys Asn Ala Arg Glu Ala Val Lys His Phe Gly Phe Gly Pro His Ser
        115                 120                 125
His Lys Val Arg Gln Tyr Leu Thr Ile Leu Cys
    130                 135
```

<210> 39714
<211> 198
<212> PRT
<213> A.fumigatus

<400> 39714

```
Ser Val Leu Ala Ser Thr Met Thr Leu Thr Ala Ile Ala Gly Ser Ala
1               5                  10                  15
Ser Ala Trp Arg Tyr Ala Glu Gln Arg Pro Ser Ala Trp Pro Arg Thr
            20                  25                  30
Gly Ile Leu Val Phe Ser Leu Thr Asn Arg Thr Arg Ser Leu Glu Pro
        35                  40                  45
Arg Gly Met Thr Arg Ser Ile Lys Glu Ser Cys Ala Arg Ser Asp Glu
    50                  55                  60
Thr Thr Ser Arg Val Leu Thr Ser Trp Thr Asp Ala Thr Gly Thr Arg
65                  70                  75                  80
Val Pro Glu Ile Ala Ser Asp Ile Thr Phe Asp Met Ala Met Lys Asp
```

```
                85                  90                  95
Ser Val Asp Ser Phe Pro Pro Ser Leu Met Ser Val Val Trp Ile Ser
            100                 105                 110
Leu Ser Ile Met Gln Lys Val Pro Phe Arg Met Ala Ala Phe Pro Asp
        115                 120                 125
Phe Met Asp Ser Ala Ala Ile Leu Ala Ile Thr Ser Gly Arg Ala Ser
    130                 135                 140
Asn Ile Ile Ser Lys Thr Pro Ile Gly Gln Leu Thr Leu Ser Arg Met
145                 150                 155                 160
Arg Pro Ser Ser Ser Ser Val Leu Arg Val Thr Leu Pro Thr Asp Arg
                165                 170                 175
Leu Ile Ser Met Met Tyr Ile Arg Pro Ile Asp Val His Thr Arg Gly
            180                 185                 190
Leu Val Phe His Thr Thr
        195
```

<210> 39715
<211> 226
<212> PRT
<213> A.fumigatus

<400> 39715

```
His Cys Thr Phe Pro Lys Thr Gln Pro Ala Thr Pro Leu Phe Tyr Ser
1               5                   10                  15
Leu Pro Leu Met Val Gln Pro Tyr Thr Tyr Gly Tyr Leu Asn Asp Glu
            20                  25                  30
Val Ile Leu Leu Leu His Thr Leu Gly Val Ser Ala Glu Val Phe Leu
        35                  40                  45
Arg Lys Gln Lys Glu His Phe Gln Arg Leu Gln Glu Ser Val Thr Glu
    50                  55                  60
Pro Thr Val Ala Phe Thr Phe Leu Cys Ser Leu Asn Arg Phe Asp Leu
65                  70                  75                  80
Ala Glu Lys Leu Val Leu His Gly Ile Glu Arg Val Ser Gly Ala Leu
                85                  90                  95
Arg Ser Leu Val Ala Asp Glu His Lys Lys Met Leu Asn Lys Arg Glu
            100                 105                 110
Asp Gln Lys Cys Arg Ile Leu Val Pro Glu Ser Arg Leu Val Phe Gly
        115                 120                 125
Val Cys Asp Pro Arg Gly Val Leu Gln Glu Gly Glu Cys Phe Leu Arg
    130                 135                 140
Val Thr Asp Asp Met Asn Gly Gly Arg Pro Arg Thr Ile Val Gly Cys
145                 150                 155                 160
Glu Val Val Val Thr Arg Asn Pro Cys Leu His Pro Gly Asp Leu Arg
                165                 170                 175
Lys Leu Lys Ala Val Asp Arg Pro Glu Leu Ser His Leu Arg Asp Cys
            180                 185                 190
Ile Val Phe Ala Val Lys Gly Glu Arg Pro Ala Ala Asp Gln Met Ser
        195                 200                 205
Gly Gly Asp Leu Asp Gly Asp Thr Cys Lys Ser Pro Pro Thr Pro Cys
    210                 215                 220
Gln Arg
225
```

<210> 39716
<211> 82
<212> PRT

<213> A.fumigatus

<400> 39716
Asn Arg Ala Ala Pro Ser Ser Pro Ala Val Lys Thr Val Ile Met Ser
1 5 10 15
Ser Ile Ser Arg Thr Ala Asn Leu Leu Leu Arg Ser Ser Lys Ala Ser
20 25 30
Leu Leu Arg Pro Arg Ala Leu Asn Pro Val Gln His Val Phe Gly Asn
35 40 45
Asn Lys Leu Ala Ala Arg Gly Leu Ala Thr Thr Phe Glu Arg Thr Lys
50 55 60
Pro His Val Asn Ile Gly Lys Tyr His Phe His Leu Gln Thr Gly Leu
65 70 75 80
Phe His

<210> 39717
<211> 88
<212> PRT
<213> A.fumigatus

<400> 39717
Thr Thr Leu Thr Ala Ala Ile Thr Lys His Gln Ser Glu Lys Gly Leu
1 5 10 15
Ala Asn Phe Leu Glu Tyr Gly Ala Ile Asp Lys Ala Pro Glu Glu Arg
20 25 30
Lys Arg Gly Ile Thr Ile Ser Thr Ala His Ile Glu Phe Ser Thr Asp
35 40 45
Ser Arg His Tyr Ala His Val Asp Cys Pro Gly His Ala Asp Tyr Ile
50 55 60
Lys Asn Met Ile Thr Gly Ala Ala Asn Met Asp Gly Ala Ile Val Val
65 70 75 80
Val Ala Ala Ser Asp Gly Gln Met
85

<210> 39718
<211> 162
<212> PRT
<213> A.fumigatus

<400> 39718
Gln Ser Ala Ser His Ser Pro Asn Ile Ser Lys Tyr Leu Ser Leu Glu
1 5 10 15
Asn Val Thr His Ala Gly Phe Asn Tyr His Leu Ile Ser Val Phe Gly
20 25 30
Ser Gln Ser Thr Gly Lys Ser Thr Leu Leu Asn His Leu Phe Gly Thr
35 40 45
His Phe Ser Val Met Ser Asp Ser Glu Arg Arg Gln Thr Thr Lys Gly
50 55 60
Ile Trp Met Ser Lys Asn Lys Arg Glu Gly Glu Ala Thr Val Asp Pro
65 70 75 80
Thr Leu Arg Met Ala Asp Asn Ile Leu Val Met Asp Val Glu Gly Thr
85 90 95
Asp Gly Arg Glu Arg Gly Glu Asp Gln Asp Phe Glu Arg Lys Ser Ala
100 105 110
Leu Phe Ala Leu Ala Thr Ser Glu Val Leu Ile Val Asn Ile Trp Glu

```
        115                 120                 125
His Gln Val Gly Leu Tyr Gln Gly Ala Asn Met Gly Leu Leu Lys Thr
    130                 135                 140
Val Phe Glu Val Asn Leu Gln Leu Phe Leu Lys Asp Lys Lys Tyr Val
145                 150                 155                 160
Phe Tyr
```

<210> 39719
<211> 104
<212> PRT
<213> A.fumigatus

<400> 39719

```
Gln Val Asp Lys Ser Leu Val Leu Arg Asn Pro Ala Tyr Phe Phe Leu
1               5                   10                  15
Leu Phe Ile Cys Ala Val Gly Ala Tyr Val Thr Tyr Gln Leu Asn Leu
            20                  25                  30
Trp Gly Pro Ile Ile Lys Met Thr Glu Ala Ala Ser Ser Gln Ala Leu
        35                  40                  45
Val Glu Gly Lys Lys Arg Leu Arg Glu Phe Leu Glu Ser Ser Asp Thr
    50                  55                  60
Gly Arg Gln Ala Ile Ala Met Ser Ala Gly Ser Gly Arg Ser Gly Glu
65                  70                  75                  80
Gln Tyr Glu Leu Ser Asp Leu Ser Lys Lys Gly Lys Ala Arg Thr Ser
                85                  90                  95
Ala Asp Glu Asp Met Asp Asp Leu
            100
```

<210> 39720
<211> 319
<212> PRT
<213> A.fumigatus

<400> 39720

```
Lys His Val Ala Tyr Val Phe Ala Asn Arg Pro Gln Thr Arg Glu His
1               5                   10                  15
Leu Leu Leu Ala Arg Gln Val Gly Val Gln Lys Ile Val Val Phe Val
            20                  25                  30
Asn Lys Ile Asp Ala Ile Asp Asp Pro Glu Met Leu Glu Leu Val Glu
        35                  40                  45
Leu Glu Met Arg Glu Leu Leu Asn Ser Tyr Gly Phe Glu Gly Glu Glu
    50                  55                  60
Thr Pro Ile Ile Phe Gly Ser Ala Leu Cys Ala Leu Glu Gly Arg Arg
65                  70                  75                  80
Asp Asp Ile Gly Lys Asp Arg Ile Glu Gln Leu Met Asn Ala Val Asp
                85                  90                  95
Thr Trp Ile Pro Thr Pro Gln Arg Asp Leu Asp Lys Pro Phe Leu Met
            100                 105                 110
Ser Val Glu Glu Val Phe Ser Ile Ala Gly Arg Gly Thr Val Ala Ser
        115                 120                 125
Gly Arg Val Glu Arg Gly Ile Leu Lys Lys Asp Ser Glu Val Glu Ile
    130                 135                 140
Val Gly Gly Ser Phe Glu Pro Lys Lys Thr Lys Val Thr Asp Ile Glu
145                 150                 155                 160
Thr Phe Lys Lys Ser Cys Asp Glu Ser Arg Ala Gly Asp Asn Ser Gly
```

```
                165                 170                 175
Leu Leu Leu Arg Gly Ile Arg Arg Glu Asp Val Lys Arg Gly Met Val
            180                 185                 190
Ile Ala Val Pro Gly Ser Thr Lys Ala His Asp Lys Phe Leu Val Ser
        195                 200                 205
Met Tyr Val Leu Thr Glu Ala Glu Gly Gly Arg Arg Thr Gly Phe Gly
    210                 215                 220
Ala Asn Tyr Arg Pro Gln Val Phe Ile Arg Thr Ala Gly Lys Phe Pro
225                 230                 235                 240
His Thr Val Ser Arg Ser Ser Glu Arg Leu Ala Ile Tyr Ala Asn Asp
                245                 250                 255
Ser Ser Asp Glu Ala Ala Asp Leu Ser Phe Pro Asp Gly Asp Gln Ser
            260                 265                 270
Arg Arg Val Met Pro Gly Asp Asn Val Glu Met Ile Leu Lys Thr His
        275                 280                 285
His Pro Val Ala Ala Glu Ala Gly Gln Arg Phe Asn Ile Arg Glu Gly
    290                 295                 300
Gly Arg Thr Val Ala Thr Gly Leu Ile Thr Arg Val Met Thr Glu
305                 310                 315
```

<210> 39721
<211> 605
<212> PRT
<213> A.fumigatus

<400> 39721

```
Cys Ser Thr Thr His Arg Ser Leu Leu Phe Phe Val Ile Arg Asp Phe
1               5                   10                  15
Val Gly Thr Thr Pro Leu Lys Asn Leu Gln Lys Thr Leu Met Glu Asp
            20                  25                  30
Met Ala Arg Leu Trp Glu Ser Ile Ser Lys Pro Pro Gly Leu Glu Ser
        35                  40                  45
Ser Ser Val His Asp Tyr Phe Asp Phe Gln Phe Tyr Gly Leu Pro His
    50                  55                  60
Lys Ser Tyr Gln Pro Glu Gln Phe Val Ala Glu Thr Lys Lys Leu Ser
65                  70                  75                  80
Leu Arg Phe Arg Glu Gly Gln Arg Asp Pro Ser Met Asp Ala Arg Arg
                85                  90                  95
Gly Glu Phe Ser Glu Gly Gly Val Phe Leu Pro Glu Tyr His Arg Arg
            100                 105                 110
Ile Pro Ala Asp Gly Phe Ser Arg Tyr Ala Glu Gly Ile Trp Asp Gln
        115                 120                 125
Ile Val Asn Asn Lys Asp Leu Asp Leu Pro Thr Gln Gln Glu Leu Leu
    130                 135                 140
Ala Gln Phe Arg Cys Asp Glu Ile Leu Arg Glu Val Met Ile Ala Phe
145                 150                 155                 160
Asp Glu Ala Ile Val Pro Phe Glu Glu Lys Gln Ser Gln Ser Ala Arg
                165                 170                 175
Leu Gly Glu Pro Glu Val Leu Gly Gly Leu Gly Ala Ala Met Arg Ser
            180                 185                 190
Ser Arg Ala Lys Ala Val Lys Asn Phe Glu Thr Glu Ala Ser Arg Tyr
        195                 200                 205
His Lys Gly Val Tyr Gln Arg Lys Arg Ala Glu Leu Glu Ser Lys Val
    210                 215                 220
Asp Thr Arg Leu Lys Ala Leu Leu Gln Gly Gln Leu Asn Ala Ala His
225                 230                 235                 240
```

```
Lys Ser Gly Ile Asn Glu Phe Ser Glu Ala Val Ser Ser Ser Val Lys
                245                 250                 255
Ser Gly Gln Lys Gln Gly Ala Gly Tyr Asp Phe Ala Glu Ile Val Asn
            260                 265                 270
Glu Glu Val Lys Lys Ala Ile Ala Lys Phe Glu Asp Val Ala Arg Ser
        275                 280                 285
Thr Val Val Glu Gly Thr Thr Trp Ser Asp Tyr Lys Gln Glu Leu Ala
    290                 295                 300
Leu Tyr Glu Lys Glu Leu Ala Asp Val Ser Gly Arg Leu Arg Arg Glu
305                 310                 315                 320
Glu Met Arg Arg Leu Ala Asn Arg Val Glu Arg Trp Val Gln Ser Arg
                325                 330                 335
Leu Gly Glu Ser Val Gly Leu Glu Phe Asn Ala Leu Gly Ser Gly Arg
            340                 345                 350
Ala Gly Gly Gly Ala Pro Glu Thr Gly Glu Lys Pro Leu Glu Lys Ala
        355                 360                 365
Phe Trp Asp Arg Val Trp Asn Val Phe Val Glu Thr Val Leu Asp Ala
    370                 375                 380
Glu Arg Arg Phe Thr Asp Arg Ala Ser Ser Phe Asp Ala Ser Leu Glu
385                 390                 395                 400
Glu Val Asp Val Gly Leu Trp Arg Leu Arg Arg Lys Ser Trp Gly Val
                405                 410                 415
Leu Arg Ala Lys Ile Asp Glu Glu Met Thr Glu Gly Asn Leu Leu Leu
            420                 425                 430
Lys Leu Arg Glu Asn Phe Glu Asp Lys Phe Arg Tyr Asp Asp Ala Gly
        435                 440                 445
Val Pro Arg Ile Trp Arg Pro Thr Asp Asp Ile Glu Gly Ile Tyr Thr
    450                 455                 460
Arg Ala Arg Glu Ser Thr Leu Thr Leu Ile Pro Leu Leu Ser Arg Phe
465                 470                 475                 480
Arg Leu Ala Glu Thr Ser Ala Pro Pro Pro Leu Asp Arg Trp Ile Gly
                485                 490                 495
His Thr Pro Ser Ser Ala Thr Pro Ala Asp Glu Glu Asp Leu Pro Pro
            500                 505                 510
Ile Gly Gly Val Asp Glu Glu Glu Gly Lys Ser Leu Asp Glu Glu Met
        515                 520                 525
Met Ile Asn His Ala Arg Leu Ser Val Lys Lys Leu Thr Val Arg Phe
    530                 535                 540
Lys Lys Ala Ala Asp Gly Val Tyr Val Glu Ala Lys Arg Ser Ala Ile
545                 550                 555                 560
Gly Gly Met Thr Gln Val Pro Leu Tyr Phe Tyr Gly Leu Leu Leu Ala
                565                 570                 575
Leu Gly Trp Asn Glu Ile Ile Ala Gly Lys Tyr Ser Met Met Lys Phe
            580                 585                 590
Ser Asn Glu Ile Ser Trp Ala Asp Arg Leu Thr Asn Leu
        595                 600                 605
```

<210> 39722
<211> 270
<212> PRT
<213> A.fumigatus

<400> 39722

```
Ser Leu Gly Arg Ser Gly His Gly Val Arg Glu Leu Thr Cys Ser Thr
1               5                   10                  15
Asp Glu Asp Leu Gly Thr Val Val Gly Thr Glu Ala Ser Thr Thr Thr
```

```
            20                  25                  30
Thr Leu Arg Leu Gly Gln Asp Val His Gly Asp Glu Glu Leu Val Val
        35                  40                  45
Ser Leu Gly Ala Ala Gly Asn Ser Asn Asp His Thr Thr Leu Asp Val
    50                  55                  60
Phe Thr Ser Asp Thr Thr Gln Glu Glu Thr Arg Val Val Thr Ser Thr
65                  70                  75                  80
Arg Phe Ile Thr Ala Leu Leu Glu Gly Phe Asn Val Gly Asp Phe Gly
                85                  90                  95
Leu Leu Gly Phe Glu Gly Ala Ser Asn Asn Leu Asn Leu Arg Val Leu
            100                 105                 110
Leu Gln Asp Thr Thr Leu Asp Thr Thr Arg Ser His Gly Thr Thr Ala
        115                 120                 125
Gly Asp Arg Glu His Phe Leu Asp Arg His Gln Glu Arg Phe Val Glu
    130                 135                 140
Val Thr Leu Arg Ser Gly Asp Pro Gly Val Asp Ser Val His Lys Leu
145                 150                 155                 160
Leu Asn Ser Val Phe Thr Asp Val Val Thr Ala Ser Phe Glu Ser Thr
                165                 170                 175
Glu Ser Gly Thr Glu Asn Asp Arg Ser Leu Phe Thr Leu Glu Thr Val
            180                 185                 190
Ala Val Gln Gln Leu Thr His Leu Glu Phe Asp Gln Phe Gln His Leu
        195                 200                 205
Arg Ile Ile Asn Ser Ile Asp Phe Val Asp Glu Asp Asn Asp Leu Leu
    210                 215                 220
Asp Thr Asn Leu Ala Gly Glu Gln Gln Met Leu Thr Ser Leu Gly Pro
225                 230                 235                 240
Ile Arg Glu Asn Val Ser Asp Val Phe Leu Arg Arg Ile Ser Gln Asp
                245                 250                 255
Val Pro Pro Thr Ser Asp Arg Arg Arg Gln Gln Gln Arg Gln
            260                 265                 270
```

<210> 39723
<211> 193
<212> PRT
<213> A.fumigatus

<400> 39723

```
Pro Tyr His Arg Cys Asn Ala Ser Ser Asp Gln Gln Leu Glu Arg Met
1               5                   10                  15
Asn Val Tyr Phe Asn Asp Val Gly Asn Ser Lys Tyr Val Pro Arg Ala
            20                  25                  30
Val Leu Val Asp Leu Glu Pro Gly Thr Met Asp Ala Ile Arg Ser Gly
        35                  40                  45
Pro His Gly Ala Leu Phe Arg Pro Asp Asn Phe Val Phe Gly Gln Ser
    50                  55                  60
Ser Ala Gly Asn Asn Trp Ala Lys Gly His Tyr Thr Glu Gly Ala Glu
65                  70                  75                  80
Leu Val Asp Gln Val Ile Asp Val Val Arg Arg Glu Ala Glu Ser Cys
                85                  90                  95
Asp Tyr Leu Gln Gly Phe Gln Ile Thr His Ser Leu Gly Gly Gly Thr
            100                 105                 110
Gly Ala Gly Met Gly Thr Leu Leu Ile Ser Lys Ile Arg Glu Glu Phe
        115                 120                 125
Pro Asp Arg Met Met Ala Thr Phe Ser Val Leu Pro Ser Pro Lys Val
    130                 135                 140
```

```
Ser Asp Thr Val Val Glu Pro Tyr Asn Ala Thr Leu Ser Val His Gln
145                 150                 155                 160
Leu Val Glu His Ala Asp Glu Thr Phe Cys Ile Asp Asn Glu Val Ser
                165                 170                 175
Val Leu Ile Leu Pro Ser Arg Asn Asp Lys Leu Thr Ser Pro Gly Ala
            180                 185                 190
Leu
```

<210> 39724
<211> 115
<212> PRT
<213> A.fumigatus

<400> 39724

```
Pro Ala Gln Ala Leu Tyr Asp Ile Cys Thr Arg Thr Leu Lys Leu Ser
1               5                   10                  15
Ser Pro Ser Tyr Gly Asp Leu Asn His Leu Val Ser Thr Val Met Phe
            20                  25                  30
Gly Ile Thr Ala Ser Phe Arg Phe Pro Gly Gln Leu Asn Ser Asp Leu
        35                  40                  45
Arg Lys Leu Ala Val Asn Met Val Pro Phe Arg Arg Leu His Phe Phe
    50                  55                  60
Met Val Gly Phe Ala Pro Leu Thr Ser Arg Gly Ala Gln Ser Phe Arg
65                  70                  75                  80
Ala Met Ser Val Pro Glu Leu Thr Gln Gln Met Phe Asp Ser Arg Asn
                85                  90                  95
Met Met Thr Ala Cys Asn Phe Gln Asn Gly Arg Phe Leu Thr Cys Ser
            100                 105                 110
Ala Leu Leu
        115
```

<210> 39725
<211> 162
<212> PRT
<213> A.fumigatus

<400> 39725

```
Pro Ala Arg Leu Phe Cys Lys Phe Phe Phe Phe Phe Phe Phe Phe Leu
1               5                   10                  15
Val Pro Phe Leu Arg Gly Val Pro Glu Lys Leu Ile Ser Phe Ser Arg
            20                  25                  30
Gly Lys Ile Ser Met Lys Glu Val Asp Asp Gln Met Leu Ser Ile His
        35                  40                  45
Thr Lys Asn Ser Gly Tyr Phe Val Glu Trp Ile Pro Asn Asn Val Gln
    50                  55                  60
Thr Ala Leu Cys Ser Val Pro Pro Lys Gly Leu Lys Met Ser Ala Thr
65                  70                  75                  80
Phe Val Gly Asn Ser Thr Ser Val Gln Glu Leu Phe Gln Arg Val Ala
                85                  90                  95
Thr Gln Phe Thr Ala Met Phe Arg Arg Lys Ala Phe Leu His Trp Tyr
            100                 105                 110
Thr Gly Glu Gly Met Asp Glu Met Glu Phe Thr Glu Ala Glu Ser Asn
        115                 120                 125
Met Asn Asp Leu Met Ser Glu Tyr Gln Gln Tyr Gln Glu Ala Ser Ile
    130                 135                 140
```

```
Ser Asp Gly Glu Glu Gln Pro Tyr Ala Glu Glu Ala Ala Tyr Glu Ala
145                 150                 155                 160
Glu Glu


<210> 39726
<211> 637
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (388)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39726
Lys Pro Asn Ala Arg Pro Gly Ala Glu His Val Phe Phe Gly Arg Ala
1               5                   10                  15
Val Gly Ile Asn Leu Asp Ala Asp Arg Glu Ala Ile Ile Ser Cys Phe
            20                  25                  30
Arg Cys Thr Gln Gly Ala Asp Gly Gly Trp Ser Thr Ala Pro Asp Gln
        35                  40                  45
Ala Gly Asp Ile Ser Val Thr Val Glu Ala Tyr Leu Ala Leu Lys Ile
    50                  55                  60
Leu Gly Leu Ser Glu Asp Asp Ala Ala Met Arg Arg Ala Arg Asp Phe
65                  70                  75                  80
Ala Ile Ala Ala Gly Gly Val Ala Lys Val Arg Ile Phe Thr Arg Ile
                85                  90                  95
Tyr Leu Ala Leu Phe Gly Leu Phe Pro Trp Ala Ala Val Pro Glu Leu
            100                 105                 110
Pro Pro Glu Leu Ile Leu Leu Pro Ser Arg Val Pro Val Ser Ile Tyr
        115                 120                 125
His Trp Ser Ala Trp Ala Arg Ala Thr Val Val Pro Leu Leu Ile Ile
    130                 135                 140
Ser His His Arg Pro Ile Tyr Ala Leu Pro Gly Gly Gly Lys Arg Thr
145                 150                 155                 160
Ser Ser Asp Tyr Leu Asp Glu Leu Trp Cys Asp Pro Gln Asn Lys Met
                165                 170                 175
Ile Pro Tyr Asn His Asp Glu Pro Thr Ala Trp Arg Ser Asp Pro Phe
            180                 185                 190
Ala Ser Ile Phe Thr Leu Ala Asp Ser Ile Leu His Arg Leu Asp Gly
        195                 200                 205
Leu Arg Ser Phe Asn Pro Phe Arg Arg Phe Ala Leu Gln Lys Cys Val
    210                 215                 220
Asp Trp Ile Leu Glu His Gln Glu Asp Met Gly Asp Ile Gly Asp Ile
225                 230                 235                 240
Met Pro Pro Leu His Gly Ala Met Leu Ala Leu Arg Leu Glu Gly Tyr
                245                 250                 255
Pro Leu His Ser Gly Pro Ile His Arg Gly Leu Glu Ala Ile Glu Arg
            260                 265                 270
Phe Ala Tyr Arg Asp Lys Gln Gly Lys Arg Ile Gln Thr Thr Val Ser
        275                 280                 285
Ala Phe Trp Asp Thr Ser Leu Met Leu Ile Ala Leu Gly Asp Ala Gly
    290                 295                 300
Met Ala Ser Lys Pro Trp Leu Thr Arg Ser Leu Gly Trp Leu Gln Gln
305                 310                 315                 320
```

```
His Gln Arg Leu Gly Asn Tyr Gly Asp Trp Lys Val Asn Asn His Gly
                325                 330                 335
Leu Lys Ala Gly Gly Phe Ser Phe Gly Tyr Phe Asn Thr Trp Tyr Pro
            340                 345                 350
Asp Val Asp Asp Thr Ala Ser Ala Val Leu Ala Met Ile Arg Gln Asp
        355                 360                 365
Glu Arg Leu Val His Ser Ala Ser Val Leu Asp Ala Leu Asn Trp Leu
    370                 375                 380
Leu Gly Met Xaa Asn Thr Asp Gly Gly Trp Gly Ala Phe Asp Arg Asp
385                 390                 395                 400
Asn Asp Lys His Phe Leu Asn Lys Ile Pro Phe Ser Asp Met Asp Ala
                405                 410                 415
Leu Cys Asp Pro Ser Thr Pro Asp Val Thr Gly His Val Leu Glu Ala
            420                 425                 430
Phe Gly Leu Phe Leu Ala Leu Ser Lys Ala Asp Ala Leu Ala Asp Arg
        435                 440                 445
Val Val Ser Ala Ser Arg Arg Ala Ile Arg Tyr Leu Ser Asp Thr His
    450                 455                 460
Val Leu Ser Arg Gly Trp Tyr Trp Arg Trp Gly Cys Asn Tyr Ile Tyr
465                 470                 475                 480
Gly Thr Ser Ala Val Leu Cys Ala Leu Ala Tyr Phe Gly Ser Glu Asn
                485                 490                 495
Asp Ala Leu Ser Gly Val Arg Val Met Lys Asp Ala Ile Asn Gln Ala
            500                 505                 510
Ile Arg Trp Leu Glu Thr Val Gln Asn Pro Asp Gly Gly Trp Gly Glu
        515                 520                 525
Thr Val Asp Ser Tyr Lys Asp Pro Ser Arg Ala Gly Ser Gly Pro Ser
    530                 535                 540
Thr Ala Ser Gln Thr Ala Trp Ala Ile Met Ala Leu Leu Pro Tyr Leu
545                 550                 555                 560
Pro Pro Ser Thr Glu Val Ile Gln Arg Gly Met Glu Tyr Leu Leu Arg
                565                 570                 575
Thr Gln Thr Lys Thr Ala Ser Gln Gly Ala Thr Trp His Glu Lys Ala
            580                 585                 590
Tyr Thr Ala Thr Gly Phe Pro Lys Tyr Phe Tyr Met Gly Tyr Ser Leu
        595                 600                 605
Tyr Ala His Tyr Phe Pro Met Met Ala Leu Gly Arg Tyr Ala Tyr Pro
    610                 615                 620
Cys Pro Ala Trp His Glu Asn Trp Arg Leu Lys Arg Asp
625                 630                 635

<210> 39727
<211> 218
<212> PRT
<213> A.fumigatus

<400> 39727
Ser Ser Thr Ser Phe Met Glu Ile Leu Pro Arg Leu Lys Leu Ile Ser
1               5                   10                  15
Phe Ser Gly Thr Pro Arg Arg Lys Gly Thr Lys Lys Lys Lys Lys Lys
            20                  25                  30
Lys Lys Asn Leu Gln Lys Ser Arg Ala Gly Gln Lys Ala Ala Val Leu
        35                  40                  45
Lys Val Ala Arg Arg His His Ile Pro Gly Ile Lys His Leu Leu Arg
    50                  55                  60
Glu Phe Arg Asp Thr His Cys Ala Glu Gly Leu Gly Ser Ser Thr Gly
```

```
65                  70                  75                  80
Gln Trp Arg Glu Ala His His Glu Glu Met Gln Pro Ala Lys Gly Asn
                85                  90                  95
His Ile Asn Arg Gln Leu Pro Gln Val Gly Ile Gln Leu Ser Gly Glu
            100                 105                 110
Pro Lys Ala Gly Cys Asp Ala Glu His Asp Arg Arg Asn Glu Met Val
        115                 120                 125
Glu Ile Ala Val Arg Arg Gly Arg Gln Leu Gln Arg Pro Arg Thr Asp
    130                 135                 140
Ile Ile Glu Arg Leu Gly Trp Leu Ala Cys His Phe Asp Leu Glu Gly
145                 150                 155                 160
Ser Gly Arg Ile Pro Arg Cys Arg Cys Lys Arg Ser His Leu Arg Ala
                165                 170                 175
Arg Pro Thr Gly Gly Pro Thr Ala Ser His Cys Thr Ala Pro Pro Arg
            180                 185                 190
Tyr Pro Arg Pro Trp Gly Met Ala Gly Pro Arg Met Trp Pro Ser Ser
        195                 200                 205
Asp Arg Gly Thr Pro Pro Gly Ser Trp Arg
    210                 215

<210> 39728
<211> 299
<212> PRT
<213> A.fumigatus

<400> 39728
Arg Pro Phe Arg Thr Pro Glu Thr Lys Thr Pro Thr Ala Ala Ser Leu
1               5                   10                  15
Arg Thr Val Pro Ala Val Gln Gln Thr Pro Arg Pro Ala Thr Pro Val
            20                  25                  30
Ser Thr Ala Pro Phe Arg Asp His Pro Arg Phe Lys Val Phe Gln Pro
        35                  40                  45
Ala Leu Ser Ser Gln Ser Gln Phe Thr Pro Arg Pro Thr Ala Gly Ser
    50                  55                  60
Ala Ser Gln Leu Pro Thr Pro Gly Pro Gln Arg Gln Lys Pro Val Phe
65                  70                  75                  80
Val Leu Pro Arg Ser Pro Ser Pro Ser Arg Met Asp Asp Glu Ser Met
                85                  90                  95
Ile Pro Thr Pro Phe Ser Pro Ser Ser His Ala Leu Arg Arg Arg Gly
            100                 105                 110
Arg Pro Arg Ser Ser Thr Ala Asp Tyr Leu Pro Gly Gly Met Ala Ser
        115                 120                 125
Asp Val Arg Ser Trp Ile Leu Glu Met Gly Thr Lys Ser Glu Gln Met
    130                 135                 140
Gln Lys Ser Leu Asp Ala His Ser Ser Thr His His Ala Gln Gly Pro
145                 150                 155                 160
Pro Asp Leu Ser Gln Tyr Tyr Leu Val Leu Arg Ile Leu Asp Val Arg
                165                 170                 175
Gln Ser Ala Leu Gly Ser Ser Gly Pro Val Ala Tyr Ile His Gly Val
            180                 185                 190
Glu Val Thr Leu Pro Asp Glu Ser Glu Ser Ala Thr Ser Gln Ser Arg
        195                 200                 205
Arg Val Leu Leu Leu Gly Pro Pro Arg Pro Ala Ser Leu Gln Ser Ser
    210                 215                 220
Arg Ala Arg Ala Gln Val Pro Glu Leu Arg Thr Gly His Leu Val Gly
225                 230                 235                 240
```

```
Val Phe Arg Asn Leu Val Trp Glu Val Gly Leu Asp Gln Thr His Leu
                245                 250                 255
Asp Gly Asn Val Pro Ser Glu Asp Thr Gln Lys Lys Glu Glu Pro Ala
            260                 265                 270
Ser Ser Leu Gly Arg Asn Thr Ser Thr Glu His Leu Glu Lys Trp Leu
        275                 280                 285
Val Gly Val Glu Trp Glu Leu Ile Asp Gln Gly
    290                 295
```

<210> 39729
<211> 137
<212> PRT
<213> A.fumigatus

<400> 39729

```
Thr Ala Ala Asp Pro Phe Gln Phe Phe Ser Ser Leu Ser Asp Leu Leu
1               5                   10                  15
Ser Lys Thr Ser Gln Lys Ala Arg Gly Ser Val Phe Leu Thr Gln Lys
            20                  25                  30
Pro Leu Leu Pro Asn Asn Ala Asn Thr Ser Thr Ser Glu Asn Ala Ser
        35                  40                  45
Ser Ser Ser Ser Ile Pro Pro Ile Leu Ile Arg Ala Thr Asp Gly Asn
    50                  55                  60
Thr Asn Ala Pro Asn Pro Lys Thr Ala Lys Asp Gln Ser Gln Lys Ala
65                  70                  75                  80
Ala Arg Thr Ser Lys Val Lys Leu Ser Thr Val Val Ala Gln Glu Asp
                85                  90                  95
Leu Glu Thr Phe Phe Ala Arg Tyr Ala Glu Val Cys Lys Ala Ser Met
            100                 105                 110
Thr Gly Leu Lys Lys Arg Asp Arg Lys Lys Gly Lys Ala Lys Ala Lys
        115                 120                 125
Gly Gly Ala Ser Lys Val Thr Lys Ala
    130                 135
```

<210> 39730
<211> 161
<212> PRT
<213> A.fumigatus

<400> 39730

```
Arg Leu Ser Leu Val Ser Asp Ser Asp Ser Asp Glu Glu Val Ala Arg
1               5                   10                  15
Ser Asp Gly Gly Ile Tyr Leu Pro Gly Leu Phe Ser Glu Asp Gly Ala
            20                  25                  30
Thr Gly Ala Thr Tyr Gly Phe Ser Leu Phe Phe Gly Ala Gly Phe Ser
        35                  40                  45
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ile Ser Ser Lys Pro Ser
    50                  55                  60
Pro Ser Lys Ser Pro Ser Ser Ser Ser Leu Ala Arg Ser Leu Ser Ser
65                  70                  75                  80
Ser Ser Glu Thr Ala Ser Gly Ala Arg Pro Cys Ala Phe Leu Leu Leu
                85                  90                  95
Phe Phe Ser His Ser Ser Ala Ser Arg Leu Arg Phe Arg Ile Ser Ser
            100                 105                 110
Ser Asp Pro Ser Pro Lys Ser Pro Ser Lys Ser Ser Ser Pro Ser Ser
        115                 120                 125
```

```
Ser Asn Asp Phe Gly Ser Phe Phe Pro Phe Phe Asn Pro Ser Phe Phe
    130                 135                 140
Ser Asn Ala Ala Ile Ser Ala Ala Ser Ser Ser Ser Leu Ser Phe Thr
145                 150                 155                 160
Gly
```

<210> 39731
<211> 151
<212> PRT
<213> A.fumigatus

<400> 39731

```
Val Pro Pro Pro Leu Arg Asn Phe Phe Phe Arg Arg His Lys Asn Tyr
1               5                   10                  15
Gln Arg Thr Tyr Val Leu Arg Ser Leu Thr Ile Ile Ile Asn Ile Phe
            20                  25                  30
Val Ala Glu Met Arg Arg Pro Arg Pro Lys His Asn Thr Thr Ser Leu
        35                  40                  45
Pro Arg Ala Leu Arg Ala Glu Leu Gly Ile Lys Asp His Tyr Gly Glu
    50                  55                  60
Lys Lys His Lys Arg Asn Gly Pro Gly Ser Arg Lys Asp Arg Arg Gln
65                  70                  75                  80
Ala Glu Arg Thr Glu Lys Lys Arg Gly Pro Pro Pro Arg Ser Lys Ala
                85                  90                  95
Arg Gln Tyr Asp Gly Glu Asp Asp Asp Asp Asp Asp Leu Ala Glu Phe
            100                 105                 110
Gly Asn Glu Ser Asp Phe Asp Ser Asp Ser Asp Glu Asp Val Pro Ala
        115                 120                 125
Ser Lys Ser Lys Ser Ala Lys Ser Glu Pro Glu Ala Pro Phe Asp Thr
    130                 135                 140
Gln Glu Glu Ser Glu Gly Ser
145                 150
```

<210> 39732
<211> 465
<212> PRT
<213> A.fumigatus

<400> 39732

```
Ser Leu Tyr Ser Arg Asn Phe Ile Thr Phe Thr Ser Ser Glu Ala Pro
1               5                   10                  15
Trp Cys Ser Thr Thr Ser Gly Cys Ser Cys Lys Arg Ser Thr Arg Arg
            20                  25                  30
Ala Gln Asn Tyr Cys Ser Lys Ser Ser Glu Val Arg Cys Gln Pro Ser
        35                  40                  45
Phe Leu Pro Lys Ser Ala Leu Leu Thr Glu Leu Asp Ser Gly Pro Gln
    50                  55                  60
Leu Arg Gln Asp Asp Pro Ser Ser Leu Lys Asp Ile Val Leu Leu Ile
65                  70                  75                  80
Gln Pro Ala Val Ala Lys Val Gly Glu Glu Ser Leu Ser Val Arg Thr
                85                  90                  95
Lys Phe Met Ile Asp Thr Ile Thr Asp Leu Lys Asn Asn Arg Leu Lys
            100                 105                 110
Ala Ala Pro Gly Ser Ser Val Thr Ser Glu His Ile Thr Lys Met Arg
        115                 120                 125
```

```
Lys Ile Leu Gly Ser Leu Asn Asn Ser Arg Val Leu Arg Ala Ser Glu
    130                 135                 140
Pro Ile Ser Ile Ser Arg Glu Asp Ile His Asn Ala Ser Gln Lys Gly
145                 150                 155                 160
Lys Trp Trp Leu Val Gly Ala Ser Trp Lys Glu Asp Pro Leu Val Ser
                165                 170                 175
Ala Arg Gln Glu Leu Ala Ser Leu Pro Gln Asp Asn Lys Ala Ala Ala
            180                 185                 190
Gln Glu Glu Asp Ser Glu Val Glu Pro Asp Leu Ala Ser Ile Ala Lys
        195                 200                 205
Ala His Arg Met Asn Thr Asp Ile Arg Arg Ser Ile Phe Val Ala Ile
    210                 215                 220
Met Ser Ala Thr Asp Tyr Gln Asp Ala His Val Arg Leu Met Lys Leu
225                 230                 235                 240
Arg Leu Lys Arg Ala Gln Glu Phe Glu Ile Pro Arg Val Leu Thr His
                245                 250                 255
Cys Ala Met Glu Glu Glu Ala Tyr Asn Pro Tyr Tyr Thr Leu Ile Ala
            260                 265                 270
Arg Arg Leu Cys Gly Glu Met Gly Arg Arg Met Lys Val Ser Phe Met
        275                 280                 285
Tyr Thr Leu Trp Asn Asn Phe Lys Arg Met Gly Glu Ser Asp Asp Met
    290                 295                 300
Asp Asp Asp Glu Glu Glu Asp Ala Gly Phe Arg Asp Asp Asn Asp Glu
305                 310                 315                 320
Arg Asn Gln Leu Ser Met Lys Ser Ala Val Asn Leu Ala Lys Met Tyr
                325                 330                 335
Ala Ser Leu Ile Ala Asp Gly Ala Leu Thr Leu Ser Val Leu Lys Thr
            340                 345                 350
Leu Asn Phe Ala Tyr Leu Gln Pro Lys Thr Lys Ala Phe Leu Glu Ile
        355                 360                 365
Leu Ile Ile Thr Ile Ile Gln Gln Ser Gln Lys Ser Lys Lys Gly Lys
    370                 375                 380
Lys Asn Gly Lys Lys Ala Gly Gln Glu Glu Glu Ala Glu Arg Asn Glu
385                 390                 395                 400
Lys Pro Leu Met Glu Ile Phe Leu Arg Ala Arg Asp Thr Pro Gln Ile
                405                 410                 415
Val Lys Gly Leu Ile Tyr Phe Ile Arg Lys Val Val Ala Lys Thr Asp
            420                 425                 430
Ile Val Glu Ser Glu Arg Glu Gln Lys Leu Val Arg Trp Gly Cys Arg
        435                 440                 445
Val Ala Val Asp Ala Leu Lys Val Val Ala Asn Glu Asp Val Ser Leu
    450                 455                 460
Gly
465
```

<210> 39733
<211> 62
<212> PRT
<213> A.fumigatus

<400> 39733

```
Phe Phe Leu Ala Val Ser Cys Leu Phe Pro Gly Asp Cys Arg Thr Leu
1               5                   10                  15
Gly Trp Ile Lys Ser Arg Ile Gly Tyr Val Leu Pro Asn Glu Ala Cys
            20                  25                  30
Thr Phe Ser Val Tyr His His Leu Ser Ile Tyr Pro Phe Gln Leu Asn
```

```
        35                  40                  45
Cys Ala Asp Glu Ala Leu Ile Leu Asp Lys Ala Asp Cys Val
    50                  55                  60

<210> 39734
<211> 323
<212> PRT
<213> A.fumigatus

<400> 39734
Ser Pro Ala Arg Ile Leu Gln Pro Val Lys Asp Lys Leu Asp Glu Asp
1               5                  10                  15
Ala Ala Glu Ile Ala Ala Leu Glu Lys Lys Leu Gly Leu Lys Lys Gly
            20                  25                  30
Lys Lys Leu Pro Lys Ser Phe Glu Glu Asp Gly Leu Leu Asp Leu Leu
        35                  40                  45
Gly Asp Leu Gly Asp Gly Ser Glu Asp Glu Ile Arg Lys Arg Lys Arg
    50                  55                  60
Glu Ala Asp Glu Trp Leu Lys Asn Lys Arg Arg Lys Ala Gln Gly Leu
65                  70                  75                  80
Ala Pro Glu Ala Val Ser Glu Glu Asp Asp Ser Asp Leu Ala Ser Asp
                85                  90                  95
Glu Glu Leu Gly Asp Phe Asp Gly Asp Gly Phe Asp Asp Met Asp Glu
            100                 105                 110
Asp Glu Asp Glu Asp Glu Glu Glu Glu Lys Pro Ala Pro Lys Lys Arg
        115                 120                 125
Glu Asn Pro Tyr Val Ala Pro Val Ala Pro Ser Ser Glu Asn Lys Pro
    130                 135                 140
Gly Lys Tyr Ile Pro Pro Ser Leu Arg Ala Thr Ser Ser Ser Glu Ser
145                 150                 155                 160
Glu Ser Leu Thr Arg Leu Arg Arg Gln Ala Gln Gly His Leu Asn Lys
                165                 170                 175
Leu Ser Glu Ala Asn Leu Ile Ser Ile Leu Gly Glu Phe Glu Lys Leu
            180                 185                 190
Tyr Arg Glu Tyr Pro Arg Gln Asn Val Thr Ser Thr Leu Leu Thr Leu
        195                 200                 205
Leu Phe Gly Leu Val Cys Glu Gly Ser Ala Leu Gln Asp Thr Phe Ile
    210                 215                 220
Ile Leu His Ala Gly Phe Ile Ala Ala Leu Tyr Lys Val Ile Gly Pro
225                 230                 235                 240
Asp Phe Gly Ala Glu Leu Val Gln Lys Leu Val Glu Thr Phe Asp Ala
                245                 250                 255
Ala Gly Asp Glu Arg Gly Lys Phe Gln Gly Lys Glu Met Ile Asn Leu
            260                 265                 270
Ile Ser Leu Leu Ser Gln Leu Tyr Asn Phe His Val Val Gly Ser Thr
        275                 280                 285
Leu Val Phe Asp Tyr Ile Arg Leu Phe Leu Gln Glu Ile Asn Glu Glu
    290                 295                 300
Ser Thr Glu Leu Leu Leu Lys Ile Ile Arg Ser Thr Leu Ser Thr Leu
305                 310                 315                 320
Phe Phe Ala


<210> 39735
<211> 127
<212> PRT
```

<213> A.fumigatus

<400> 39735

```
Thr Ile Gln Leu Val Ser His Leu Arg Pro Ser Ala Ile Met Ala Ser
1               5                  10                  15
Asn Gln Pro Ser Lys Arg Lys Ser Ala Phe Pro Gly Pro Gln Pro Gly
            20                  25                  30
Ala Ala Ala Ser Arg Lys Arg Ala Lys Thr Phe Asp Ala Arg Ser Leu
        35                  40                  45
Ala Val Gln Ser Ala Asp Ala Ala Leu Ser Ala Ser Gly Glu Leu Asn
    50                  55                  60
Val Ala Ala Tyr Val Glu Ala Arg Glu Phe Glu Ile Arg Ala Leu Glu
65                  70                  75                  80
Ser Gly Met Gln Arg Ser Lys Ser Ala Leu Thr Ser Arg Ala Phe Gln
                85                  90                  95
Lys Val Pro Arg Ala Leu Arg Arg Arg Thr Ala Ser His Asn Val Lys
            100                 105                 110
Arg Val Pro Arg Arg Leu Arg Ala Arg Ala Lys Arg Glu Val Cys
        115                 120                 125
```

<210> 39736
<211> 768
<212> PRT
<213> A.fumigatus

<220>
<221> UNSURE
<222> (159)
<223> Identity of amino acid sequences at the above locations are unknown.

<400> 39736

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Pro Leu Asp Asp Asp Asp Arg Gln Lys Ser Cys Ala Phe Ala Leu Lys
1               5                  10                  15
Arg Leu Asp Gly Phe Glu Ile Ser Ile Pro Arg Gln Lys Pro Ser Val
            20                  25                  30
Arg Gln Arg Lys Gln Ser Gly Thr Lys Arg Pro Lys Arg Leu Trp Lys
        35                  40                  45
Arg Gln Val Ala Thr Pro Ile Thr Ser Pro Arg Glu Cys Arg Arg Ser
    50                  55                  60
Arg Lys Thr Ser Ser His Cys Pro Arg Arg Pro Asn Gln Ser Thr Arg
65                  70                  75                  80
Asn Gly Ser Gly Ala Arg His Gly Phe Arg Arg Ile Cys Ser Met Arg
                85                  90                  95
Ser Ala Pro Thr Trp Pro Leu Arg Arg Thr Arg Cys Gly Gly Ser Arg
            100                 105                 110
Tyr Pro Cys Arg Arg Arg Glu Lys Ser Tyr Arg Pro Ser His Arg Ala
        115                 120                 125
Lys Gly Ala Arg Gly Ala Val Ala Trp Asp Met Ser Tyr Met Ser Thr
    130                 135                 140
Ile Gln Leu Glu Gly Thr Glu Glu Ala Met Glu Ala Val Leu Xaa Gly
145                 150                 155                 160
Ile Gly Ile Asn Gly Gln Asp Ala Trp Gly Pro Lys Gly Arg Lys Trp
                165                 170                 175
Arg Ala Gly Thr Arg Ser Leu His Ala Trp Ala Phe Glu Arg Asp Gly
            180                 185                 190
Thr Gln Arg Pro Ile Ala Pro Ile Thr Leu Ile Arg Cys Ala Asp Gly
```

```
        195                 200                 205
Lys Ala Glu Asp Val Glu Met Val Asp Ala Asp Gly Pro Lys Lys Lys
    210                 215                 220
Ser Gln Lys Asp Arg Lys Lys Leu Phe Ile Arg Val His Pro Ser Ala
225                 230                 235                 240
Phe Leu Gln Leu Trp Asn Glu Leu Leu Gly Ile Ser Lys Arg Gln Asn
                245                 250                 255
Pro Pro Val Met Val Glu Asp Leu Arg Phe Glu Ile Gly Ser Ile Glu
            260                 265                 270
Ile Thr Gly Pro Gly Ser Thr Glu Ala Leu Leu Ser Ala Leu Lys Pro
        275                 280                 285
Leu Val Pro Asp Gly Ala Glu Pro Pro Ala Gly Ser Pro Glu Ala Thr
    290                 295                 300
Trp Thr Ser Leu Leu Gly Val Ser Asn Pro Ser Ser Leu Pro Gln Asn
305                 310                 315                 320
Ala Phe Leu Gly Phe Ser Val Ser Asp Pro Arg Leu His Phe Pro Pro
                325                 330                 335
Arg Thr Leu Lys Pro Pro Ala Ser Asp Gln Glu Met Gln Asn Leu Ala
            340                 345                 350
Ile Leu Leu Ser Thr Trp Ser Pro Asp Thr Thr Gln Thr Ser Pro Ala
        355                 360                 365
Leu Phe Asp Arg Arg Ala Arg Leu Thr Ala Thr Arg Gln Leu Pro Arg
    370                 375                 380
Gln Lys Ala Ile Asn Arg Arg Arg Thr Leu Ala Gly Pro Gly Val Tyr
385                 390                 395                 400
Pro Pro Ala Glu Ala Ser Asp Pro Lys Ile Pro Val Met Ile Leu Ala
                405                 410                 415
Ser Arg Ser Thr Ser Gln Ser Lys Asn Thr Asn Ala Pro Gly Thr Trp
            420                 425                 430
Thr Val Leu Leu Pro Trp Lys Cys Val Leu Pro Leu Trp Tyr Ser Leu
        435                 440                 445
Met Tyr Tyr Pro Leu Ser Ser Gly Gly Thr Val Arg Phe Gly Gly Leu
    450                 455                 460
Lys Glu Gln Arg Gln Leu Ala Phe Glu Ala Gly Glu Pro Trp Phe Pro
465                 470                 475                 480
Gly Asp Phe Pro Gly Thr Arg Ala Gly Trp Glu Trp Asn Ile Arg Glu
                485                 490                 495
Arg Glu Lys Ala Lys Gln Glu Trp Glu Arg Arg Pro Lys Gly Arg Arg
            500                 505                 510
Thr Glu Phe Asp Ser Leu Asp Leu Gly Asn Gly Gln Lys Gly Glu Ile
        515                 520                 525
Gly His Gly Trp Ala Cys Asp Trp Glu Arg Leu Val Gln Gly Pro Pro
    530                 535                 540
Lys Ile Ser Thr Pro Glu Pro Asn Glu Ala Lys Glu Ile Glu Gln Ser
545                 550                 555                 560
Gln Asp Ala Glu Gln Gln Asp Thr Gln Met Ser Asp Ala Glu Gln Gln
                565                 570                 575
Ala Val Gly Gly His Ala Pro Pro Phe Asp Ile His His Leu Pro Ile
            580                 585                 590
Ala Lys Ala Glu Ala Ala Ile Asn Asn Arg Ser Glu Pro Thr Glu Gln
        595                 600                 605
Ala Ala Ile Ala Thr Val Lys Ile Ser Leu Leu His Arg Gly Ser Pro
    610                 615                 620
Asn Pro Ala Ala Arg Ile Tyr Arg Leu Pro Thr Thr Asn Pro Asp Leu
625                 630                 635                 640
Arg Gln Glu Trp Leu Arg Leu Ala Ser Asp Glu Arg Lys Ser Lys Ser
```

```
                645                 650                 655
Arg Lys Ala Pro His Leu Gln Gly His Leu Gln Gln Ser Ala Gln Pro
            660                 665                 670
Ser Ala Ala Gln Gly Asp Ala Arg Gln Lys Leu Ala Ala Ser Leu Ile
        675                 680                 685
Thr Pro Ala Ala Asp Thr Glu Ser Arg Lys Glu His Leu Pro Ile Pro
    690                 695                 700
Thr Glu Glu Asp Leu Ile Gly Phe Val Thr Thr Gly Asn Tyr Asn Leu
705                 710                 715                 720
Ser Glu Gly Lys Gly Thr Gly Ile Gly Ser Ile Leu Val Ser Lys Val
                725                 730                 735
Ala Ala Ser Gly Lys Gly Gln Ala Arg Glu Arg Arg Met Cys Ile Val
            740                 745                 750
Arg Asn Ala Gly Glu Arg Val Gly Arg Leu Gly Phe Trp Glu Leu Ile
        755                 760                 765

<210> 39737
<211> 76
<212> PRT
<213> A.fumigatus

<400> 39737
Asn Pro Asp Arg Leu Ser His Trp Phe Ile Tyr Lys Ala Tyr Val Pro
1               5                   10                  15
Pro Phe Arg Ala Ser Tyr Phe Asp Val Ile Gln Thr Cys Thr Gln Asp
            20                  25                  30
Tyr Ala Ala Pro Met Ser Trp Ile Ser Val Arg Asp Met Ala Phe Asn
        35                  40                  45
Leu Leu Phe Met Leu Ser Ile Ile Gly Thr Val Thr Val Asn Tyr Phe
    50                  55                  60
Glu Ser His Tyr Leu Leu Met Leu Pro Phe Lys Ser
65                  70                  75

<210> 39738
<211> 112
<212> PRT
<213> A.fumigatus

<400> 39738
Pro Gln Ile Leu Ala Leu Val Asp Leu Ile Val Pro Gly Ile Thr Thr
1               5                   10                  15
Thr Leu Ser Leu Ser Gln Tyr Ser Lys Gly Pro Leu Pro Ser Gly Gln
            20                  25                  30
Ser Pro Arg Asn Lys Ser Lys Leu Gln Gln Lys Ala Leu Arg Pro Asn
        35                  40                  45
Gln Pro Ser Lys Tyr Lys Ser Asn Pro Leu Thr Ser Gln Ser Asn Ser
    50                  55                  60
Asn Ala Pro Ile Gln Phe Ser Ser Asn Leu Val Asp Ala Leu Gln Thr
65                  70                  75                  80
Asn Thr Glu Val Arg Leu Arg Ala Gln Leu Thr His Pro Asn Thr Leu
                85                  90                  95
Ala Thr Gln Thr Pro Ile Ala Leu Arg Thr Arg Pro Gln Leu Leu Ile
            100                 105                 110

<210> 39739
<211> 213
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<212> PRT
<213> A.fumigatus

<400> 39739
Pro Arg Arg Cys Pro Pro Asp Glu His Arg Gly Thr Ser Pro Ser Pro
1 5 10 15
Ala Asn Thr Pro Gln His Pro Cys Asn Pro Asp Ser Asn Cys Thr Pro
20 25 30
Asn Gln Thr Thr Thr Ile Asn Leu Thr Lys Asn Gln Thr Asp Ser Ser
35 40 45
Arg Ala Lys Ser Leu Glu Leu Gln Ile Gln Ala Arg Val Ala Gln Glu
50 55 60
Leu Glu Arg Leu Arg Glu Arg Glu Gln Gln Thr Leu Ala Glu Ile Glu
65 70 75 80
Lys Arg Leu Ala Glu Ala Lys Asp Ser Ala Pro Ala Ala Pro Ser Ser
85 90 95
Thr Pro Asn Ile Thr Tyr Pro Ala Gly Ser Leu Asn Leu Asp Ala Pro
100 105 110
Arg Ile Pro Phe Ala Gly Arg Glu Tyr Glu Ser Thr Pro Ala Pro Thr
115 120 125
Val Ala Ala Asp Gln Pro Ile Asn Arg Asp Leu Ser Arg Glu Ser Val
130 135 140
Asn Ala Glu Ile Glu Gln Leu Arg Ala Lys Leu Glu Gly Arg Arg Lys
145 150 155 160
Leu Val Glu Val Asp Glu Asn Val Glu Arg Ala Arg Asn Glu Val Val
165 170 175
Thr Cys Leu Arg Leu His Asp Arg Arg Pro Leu Asp Cys Trp Lys Glu
180 185 190
Val Glu Gly Phe Lys Arg Glu Val Ala Arg Leu Glu Glu Ala Phe Val
195 200 205
Asp Arg Val Val Gly
210

<210> 39740
<211> 85
<212> PRT
<213> A.fumigatus

<400> 39740
Ser Ser Leu Arg Lys His Ser Arg His Thr Met Leu Ile Val Ser Leu
1 5 10 15
Glu Tyr Phe Cys Pro Ile Lys Thr Asp Met Ile His Tyr Ile Asp Pro
20 25 30
Ile Tyr Asn Lys Asp Cys Thr Thr Leu Thr Asn Lys Ile Gln Pro Ser
35 40 45
Asn His His His Ala Ile Ile Thr Lys Arg Pro Asn Phe Tyr Thr Ser
50 55 60
Ser Thr Phe Leu Ser Ile Pro Asp Arg Lys Asn Gln Val His Leu Ala
65 70 75 80
Leu Leu Phe Ser Ile
85

<210> 39741
<211> 128
<212> PRT
<213> A.fumigatus